

**THE DETERIORATION IN THE TERMS OF  
TRADE OF LDC S AND UNEQUAL EXCHANGE**

**A DISSERTATION  
SUBMITTED TO THE  
UNIVERSITY OF POONA  
IN PARTIAL FULFILMENT  
FOR THE DEGREE OF  
MASTER OF PHILOSOPHY  
IN ECONOMICS**

**BY**

**RAJANI GUPTA**

**GOKHALE INSTITUTE OF POLITICS AND ECONOMICS  
PUNE 411 004**

**1983**

(11)

ACKNOWLEDGEMENT

I am extremely grateful to Prof. P. Venkatramaiah for his guidance in the writing of this dissertation.

I would also like to thank Dr. B.G. Bapat and Dr. S.V. Bokil for their valuable comments.

Finally, Shri K.P. Limbore deserves praise for the prompt and efficient typing of the manuscript.

Rajani Gupte.

CONTENTS

	<b>Page</b>
<b>ACKNOWLEDGEMENT</b> .. .. .	(11)
<b>CONTENTS</b> .. .. .	(111)
<b>INTRODUCTION</b> .. .. .	1
<b><u>CHAPTER I</u> - TRADE AND DEVELOPMENT</b> ..	3
1.1 Introduction .. .. .	3
1.2 Foreign Trade as an Engine of Growth	4
1.3 The Ricardian Comparative Cost Doctrine .. .. .	5
1.4 The secular trend in the Terms of Trade - A Statistical Debate ..	9
<b><u>CHAPTER II</u> - SOME EXPLANATIONS FOR THE DETERIORATION OF TERMS OF TRADE IN LDC'S</b> ..	20
2.1 Introduction .. .. .	20
2.2 The Prebisch - Singer Thesis ..	21
2.3 Variable returns to scale ..	28
2.4 The Dependency Thesis ..	30
2.5 The Unequal Exchange Thesis ..	34
<b><u>CHAPTER III</u> - THE UNEQUAL EXCHANGE HYPOTHESIS</b>	38
3.1 Introduction .. .. .	38
3.2 Objectives .. .. .	39
3.2.1 On the Theoretical Plane ..	39
3.2.2 On the Practical Plane ..	41
3.3 Methodology .. .. .	43
3.3.1 Determination of Internal Equilibrium Prices .. .. .	44
3.3.2 Formation of External Equilibrium Prices .. .. .	45
3.3.3 Unequal Exchange .. .. .	48

	Page
<b><u>CHAPTER III - (contd.)</u></b>	
3.3.4	The Theory of Wages .. .. 52
3.3.5	Difference between the two forms of Unequal Exchange .. .. 54
3.4	The Determination of International Equilibrium Prices, with more than two factors .. .. 57
3.5	Policy Implications .. .. 59
<b><u>CHAPTER IV - A CRITIQUE OF THE UNEQUAL EXCHANGE HYPOTHESIS</u></b>	
4.1	Introduction .. .. 64
4.2	The U.E. Thesis is not Marxist in nature .. .. 65
4.2.1	Refutation of Lenin's Theory of Imperialism .. .. 65
4.2.2	Rejection of the Marxian Theory of Value .. .. 66
4.2.3	Rejection of the International Solidarity of the Working Classes 69
4.3	The Distinction between the two categories of U.E. is not valid 72
4.4	Wages do not constitute the Independent Variable .. .. 73
4.5	Low Wages do not entirely explain UE - Productivity Differences are important .. .. 78
4.6	The Assumption of International Equalisation of the Rate of Profit cannot be sustained .. .. 81
4.7	U.E. assumes Identical Technique of Production .. .. 84
4.8	Trade and UE will not take place in Emmanuel's Model .. .. 85
4.9	The Policy Implications are not valid 87



					Page
<b>CHAPTER IV - (contd.)</b>					
4.10	The Modifications suggested by the critics	..	..	..	91
CONCLUSION	..	..	..	..	93
APPENDIX	..	..	..	..	95
LIST OF ABBREVIATIONS	..	..	..	..	108
BIBLIOGRAPHY	..	..	..	..	109

## INTRODUCTION

Discussions regarding the impact of international trade on development date back to the mercantilist writings of the 17th century, which focussed attention on the beneficial effects of a surplus in the trade account. Later, the classical and neo-classical economists extolled the virtues of foreign trade and advocated a free trade policy, on the grounds that free trade resulted in a gain for all the participants. In fact, Lewis (1952) was convinced that, "..... historically, the beginnings of economic development in every country are associated with increased foreign trade ....."

This view was regarded with increasing scepticism around the 1950's when Prebisch, Singer and others observed a persistent downward trend in the terms of trade of primary-product-exporting countries. This was interpreted as an indication that trade between two countries did not necessarily benefit both partners. This set off a long drawn out controversy. Both these hypotheses form the subject matter of Chapter I.

Besides investigating the decline in terms of trade (TOT) as a statistical phenomenon, several attempts have been made to explain theoretically the malfunctioning of trade as an "engine of growth" and we deal with these explanations in Chapter II.

In Chapter III, we pursue one of these explanations viz. Emmanuel's "Unequal Exchange" hypothesis, in some detail, before we present a critique of this theory in Chapter IV.

CHAPTER I  
TRADE AND DEVELOPMENT

1.1 INTRODUCTION

"..... the causes which determine the economic progress of nations, belong to the study of international trade."<sup>1</sup>

During the 19th century the pace of economic development of nations was greatly accelerated by trade between them. The experience of U.K., U.S.A. and other nations is often cited to show that trade induced growth had occurred during the 19th century. Indeed, it was claimed that trade had been and could be "an engine of growth."

This experience of the nations entering into trade, appeared to be merely bearing out the theoretical expectation of gains from trade, as postulated in the Ricardian theory of comparative cost doctrine.

It was only during the period 1950 - mid 1960's that there was a considerable debate regarding trade and development. The controversy centred round the secular trend in the terms of trade of LDC and has since become an empirical and theoretical quagmire.

---

1. Alfred Marshall - Principles 8th edition, London, 1920, p. 270.

## 1.2 FOREIGN TRADE AS AN ENGINE OF GROWTH

International trade played a crucial part in shaping the destiny of several nations in the nineteenth century. This is particularly evident in the experience of Britain. During the period 1815-1913 there was a threefold increase in the population and a ten-fold increase in the national output; there was thus an intense pressure on the British resource base and consequently, British imports increased twenty-five fold. British imports as a proportion of its National output rose from about 12% to 33%.<sup>2</sup> This trade explosion was particularly concentrated during the period 1830-60, when British exports grew at the rate of 5.6% p.a. and imports grew at 4.1% p.a.<sup>3</sup>

This massive expansion was evident in the volume of world trade, too. In real volume it increased 10-fold between 1850 and 1913, twice as fast as world production. The rate of growth of world trade is shown in Table 1.

The vital driving force of the trade explosion between 1830-60 was the increased propensity to import raw materials. This was evident in the case of the European nations also, where the import of food and raw materials

---

2. Thoburn, J. (1977).

3. Lewis, A. (1952), p. 19.

**Table 1: Rate of Growth of World Trade**

<b>Year</b>	<b>Rate of growth of world trade per year</b>
1750-1820	1.0%
1820-1913	4.6%
1830-1860	5.0%
1880-1913	3.7%
1913-1939	0.9%
1913-1970	3.7%

Source: Sodersten B. - International Economics (1970).

as a percentage of total imports increased considerably, during 1830-60, in France and Germany, from 93% to 97% and 79% to 89% respectively.<sup>4</sup>

Thus we see that the idea that trade functioned, not merely as a device for the optimum allocation of a given stock of resources, but above all as an "engine of growth", to use Sir Dennis Robertson's phrase, was amply justified in the 19th century by the experience of several nations.

### 1.3 THE RICARDIAN COMPARATIVE COST DOCTRINE

The theoretical justification for the notion of trade functioning as an engine of growth, for all

---

4. Lewis, W.A. (1952), p. 15.

participants in trade can be found in the classical writings on foreign trade.

The importance of foreign trade has been emphasised by statesmen and economists, since the early 17th century Mercantilists. With Adam Smith's emphasis on the division of labour, the idea gained ground that, what was beneficial to individuals could scarcely be folly in the case of nations!

The credit however goes to Ricardo D. (1817) for enunciating the law of comparative cost advantage, which originated as a development of the 18th century criticism of Mercantilist policy.

The doctrine of comparative cost advantage maintains that, if trade is left free, each country, in the long run, tends to specialise in the production of, and exports those commodities, in whose production it enjoys a comparative advantage, and imports those commodities, which could be produced at home, only at a comparative disadvantage in terms of real costs. Such a specialisation, it is claimed, is to the mutual advantage of all the countries participating in trade.

The Ricardian doctrine was stated under several simplifying assumptions:

1. There are two countries and two goods.
2. There is only one factor - labour. Labour is immobile between countries.

3. Labour costs are proportional to real costs.
4. Production takes place under constant returns to scale.
5. The technology of production differs between the two countries, because the conditions of production differ.
6. There is perfect competition in the product and factor market.

The crucial element in Ricardo's comparative cost doctrine as Shaikh (1979) points out is really the automatic mechanism of the quantity theory of money, which leads to a process of adjustment that results in each country's international terms of trade (TOT) being necessarily better than its domestic TOT. This proposition has often been used as a proof that each nation as a whole gains from trade.

The later classical and neo-classical writers modified certain aspects of the Ricardian model, but the basic principle remained intact. They all reiterated that trade is mutually beneficial to each country viewed as a single classless entity. Also, on the assumption of immobility of labour and capital internationally, it had been admitted for more than a century, that it was the prices of commodities (themselves determined by the law of demand and supply) dealt with in international trade which determined the remunerations of their producers and not



vice versa.

It was on this basis that the unconditionally optimistic forecasts, as regards the prices of primary products were made. Ricardo, Torrens and others were categorical - as societies progress, a gap is created and widened between values of manufactured and primary products. The price of the former declining constantly and that of the latter increasing unceasingly, Marshall, in fact, foresaw the day when backward countries, thanks to their primary-product exporting status, would possess an inexpugnable monopoly in their international bargaining!

This complacency was rudely shaken by the publication in 1949 of the famous study by the U.N. - "Relative prices of Exports and Imports of Underdeveloped Countries", showing a 40% deterioration in the TOT of the third world countries, since the end of the 19th century, and particularly after the Korean war, pointing to an acceleration of the movement.

Economists attempted to save their theory by putting forth explanations based on the elasticities of demand.

Raul Prebisch (1950 & 1959) questioned the mutual profitability of the existing pattern of international division of labour. His major claim was that, the net barter terms of trade (NBTOT) for the LDC necessarily deteriorate over time, and that the unfavourable impact of unrestricted trade on balance of payments of LDC's far

outweighs any advantage with respect to more efficient allocation of resources.

This triggered off a major controversy over the secular trend in the terms of trade, which is examined in the next section.

#### 1.4 THE SECULAR TREND IN THE TOT - A STATISTICAL DEBATE

Prebisch (1964) argued that there was a downward trend in the TOT of primary product exporting countries.

In his report for UNCTAD I (1964), Prebisch rested his statistical case on the Net Barter terms of trade (NETOT) of U.K. for the whole of its merchandise trade. He spliced two partially overlapping series (those of Schlote and Board of Trade) as given in U.N. (1949) table 5 to give a run of index numbers from 1876-80 to 1946-47, which showed an unmistakable secular improvement in Britain's terms of trade. Since for a greater part of this period, Britain was the most important importer of primary products and exporter of manufactures, he took this to imply a secular deterioration in NETOT of primary products as traded world wide.

This has generated an enormous controversy and has been sometimes dismissed by writers as totally erroneous - "a mistaken view ..... enshrined by constant repetition into a myth."<sup>5</sup>

---

5. Little I.M.D. (1975), p. 227.

Prebisch's thesis was contested on several statistical grounds:

(1) The United Kingdom's NBTOT were not representative of the industrial countries as a whole and hence its inverse could not serve as a proxy for the terms of trade of primary products. (Kindleberger, (1956, pp. 261-3), Haberler, (1959, p. 20), Meier & Baldwin, (1957, p. 234), Morgan, (1959), Lipsey, (1963, p. 17), Johnson, (1967, p. 249).

This criticism has been rather severe, particularly because Prebisch chose to rest his case exclusively on U.K. data, when the U.N. source from which he obtained his data, also included a terms of trade series labelled 'Primary to Manufactural commodities in World Trade' compiled by the League of Nations. This series was also based on British data upto 1929, but with the important difference that the price index for manufactures was based on both British exports and British imports of manufactures, the latter intended as a proxy for manufactures of non-British origin. Also, for 1929 and later years, world trade data compiled by the League of Nations was used.

Did Prebisch mislead himself and others by not using the best evidence available at the time? Spraos J. (1980) investigates this point and concludes that the leap from the evidence of Britain's NBTOT to an inference about the relative price of primary products vis-a-vis

manufactures in world wide trade was not misleading as to direction, though it gave an exaggerated impression of the magnitude of deterioration. (See Appendix I).

(2) Prebisch did not distinguish between primary exports of developing and developed countries.

Meier (1958) pointed out that "..... the terms of trade between primary products and manufactures are not the same as the terms of trade between poor and rich countries."<sup>6</sup> This criticism however, is of doubtful validity because the available evidence does not point to a lesser deterioration of the NBTOT for the narrower range of primary products, which originate predominantly in developing countries. The evidence is mostly neutral. Kindleberger has constructed a unit value index for selected years for Industrial Europe's combined exports and imports of primary products (excluding intra-trade of industrial Europe) which falls by a cumulative 22% from 1872 to 1938. Over the same period his unit value index for industrial Europe's imports of primary products from his 'other' group of countries (Africa except S. Africa, Asia except Soviet Asia, Latin America except Argentina and Uruguay etc.) falls by 38%. This suggests that the subset of primary products of developing country origin has experienced a bigger price fall.

---

6. Meier, G. (1958), p. 286.

It may therefore be concluded that if exact data were available they would not have weakened the statistical foundation of the deterioration thesis.

(3) The third principal criticism of the Prebisch thesis is that exports are valued f.o.b. whereas imports are valued c.i.f. so that the improvement in the U.K's NBTOT could be due partly or even wholly to a reduction in transport costs and not to a relative fall in prices received by primary produce. (Viner (1953, p. 114), Meier & Baldwin (1957, p. 236), Haberler (1959, p. 20), Morgan (1959), Schloss (1977)).

In principle, if freight and insurance costs are a larger proportion of the c.i.f. price of primary product imports at the start of the period for which we have observations and then they fall heavily during the period, it is possible to observe a deterioration in the NBTOT of primary products when measured c.i.f., vis-a-vis manufactured exports measured f.o.b.

Ellsworth made an attempt to document the presence of a valuation bias. His evidence related to a big decline in freight costs which was a notable event in economic history of the last quarter of the 19th century, thanks to the advent of the steamship. He argued that the whole of the apparent deterioration of the NBTOT of primary products over the period 1871-1905, could be accounted for by this factor.

The point to be made here is that if the unit cost

saving from progress in transportation technology was equal to the relative fall in the c.i.f. price of primary products, it would mean that the importers of the developing countries' primary products (which have price inelastic demand) would appropriate the entire gain; while the developing countries cannot hope to make an off-setting gain on manufactured imports, since transport costs constitute a much smaller proportion of total costs in manufacturers, than in primary products.

(4) Another major criticism is that new manufactured goods enter trade and the quality of existing ones is improved, but these developments are not reflected adequately in the price index of manufactures, which therefore tends to be biased upwards and thus yields the impression of a deterioration in NBTOT of primary products where there may be none (Viner (1953, p. 114), Meier & Baldwin (1957, p. 236), Haberler (1959, p. 21), Morgan (1959), Schloss (1977), Thoburn (1977)).

This has often been asserted but never demonstrated. In fact Kindleberger (1956) in his extensive study of Europe's TOT felt that there was no long run tendency for the TOT to decline against primary products in favour of manufactures." ..... on the contrary if allowance is made for the unprovable but generally accepted fact that the improvement in quality of manufactures over the past 80 years has been greater than that of primary products,

the TOT may have turned against manufactures and in favour of primary products per unit of equal quality, however that may be defined."<sup>7</sup> (Emphasis added)

Now, the problem of quality in the context has two facets, the quality will improve if -

- (a) the product mix alters in favour of higher quality goods within a group and
- (b) technical progress imparts superior properties to a given good.

It is generally believed that primary products do not lend themselves to quality improvements, and this is true up to a point with respect to (b). But regarding (a) it has been seen that in Kenya the proportion of coffee beans of the highest quality harvested in 1957-58 was 0.20% while in 1964-65 it was 16.30%. In Greece, 60.1% of cotton output in 1954 had a staple length of 25 mm and only 11.3% of 28 mm or more; in 1970, the respective proportions were 0.1% and 97.3%.

If quality improvements are thus liable to be underallowed on both sides, we can make no presumption regarding a systematic bias in TOT from this source.

- (5) Finally, the arbitrariness of the choice of the starting and finishing dates in dealing with time series.

Schloss (1977) finds the period selected by Prebisch

---

7. Kindleberger, G.P. (1956), p. 234.



(1951-60) unsatisfactory because it starts with a historical point of high raw material prices (Korean war boom) and ends with a relatively depressed period. Attempts to remove the cyclical demand influence on the extremities of the NBTOT series show that the inference of deterioration survives decycling, but that the severity of the deterioration is much less than shown by Prebisch.

Some criticism is also based on the concept of terms of trade employed, NBTOT here.

Wilson, Sinha and Castree (1969) feel that NBTOT receive more attention and that this is an unjustified, unfortunate bias. From the point of view of development the relative rates of improvement in Income Terms of Trade (YTOT)<sup>8</sup> are more important and relevant.

A decline in NBTOT need not always imply a deterioration in YTOT. For example, if NBTOT have declined due to increased efficiency in country X leading to a fall in price of exports ( $P_x$ ) relative to price of imports ( $P_m$ ), then this may release further resources for exports which expand more than proportionately to the decline in prices. There

---

8. This index corrects the movements in NBTOT for changes in the export volume

$$I = \frac{P_x}{P_m} \cdot Q_x$$

where  $P_x$  &  $P_m$  are the price index Nos. of exports and imports respectively and  $Q_x$  is the export volume index.



the NBTOT would have worsened but development would be stimulated, i.e. the purchasing power of exports over imports would be increased.

Wilson, Sinha and Castree show the trends in NBTOT and YTOT for Developed and Undeveloped countries -

**Table 2: Net Barter & Income TOT**

Years	U.N. weighted avg. for developed countries		U.N. weighted avg. for developing countries	
	NBTOT	YTOT	NBTOT	YTOT
1950-53	100.0	100.0	100.0	100.0
1954-57	101.4	132.6	98.3	116.0
1958-61	107.1	172.2	92.3	126.4
1962-65	109.8	236.5	90.7	156.8

Source: U.N. Yearbook of International Trade Statistics.

These averages record a continuing improvement in BTOT of developed countries of 10% from 1950-53 to 1962-65, but it compares with a continuing deterioration of 9% of LDC's over same period.

The change in Income TOT is much larger, for the developed countries (DC) it is 136%, for LDC's it is 57%.

Thirlwall (1972) also indicates that evidence for 1957-65 shows that YTOT for DC's improved at the rate of 8.1% per annum, while in LDC's the rate of improvement was

only 5.1% p.a. Moreover, when the YTOT for both sets of nations are adjusted for differences in rates of growth of population the LDC's appear even worse off.

The U.N. weighted average for LDC's indicates that the TOT for LDC's as a whole decline. But within the group of LDC's there are considerable variations which may be due to differences in the commodity composition of the exports. This is illustrated in Table 3.

Table 3: Commodity and Income TOT in LDC's  
(4 year averages) 1950-65

Country		1950-53	1954-57	1958-61	1962-65
Panama	N	100	123	105	106
	I	100	147	148	309
Pakistan	N	-	100	101	109
	I	-	100	99	155
Peru	N	100	91	75	81
	I	100	126	154	221
Argentina	N	100	88	89	91
	I	100	110	127	176
Chile	N	100	113	101	111
	I	100	137	129	166
India	N	100	102	109	111
	I	100	111	118	143
Columbia	N	100	117	85	83
	I	100	119	91	98

Source: Wilson, Sinha, Cartree (1969).

Thus we see that there are considerable variations.<sup>9</sup> For Peru I more than doubled, whilst N fell by nearly 20%. For Argentina I increased by 76%, whilst N fell by 9% etc.

The general picture that emerges from the large volume of evidence in all these studies reveals, really six more or less clearly defined phases:

1. 1800 - 1880 - Favourable to LDC's in NBTOT
2. 1880 - 1913 - Favourable to DC's " "
3. 1913 - 1938 - Favourable to DC's " "
4. 1939 - 1952 - Favourable to LDC's " "
5. 1952 - 1960 - Favourable to DC's " "
6. 1963-1974 - The decline in NBTOT for LDC's was arrested but variations within the group were enormous.

The conclusions drawn in various studies thus depend on the time period chosen e.g. Prebisch analyses the period 1870-1939 and 1951-60 while Wilson, Sinha & Castree (1969) refer to phase 5.

Kindleberger (1956) and Morgan (1959) (the period of study was 1801-1953) on the other hand deny that any unfavourable trend for LDC's is visible, while Ellsworth & Haberler emphasise the indeterminacy of the long term TOT between manufactures and primary products.

There is thus no conclusive evidence in favour of

---

9. For a brief note on India's TOT see Appendix III.

either of the two hypotheses tested, but the weight of evidence, seems to be in favour of the hypothesis suggesting a secular deterioration in the TOT of LDCs.

CHAPTER IISOME EXPLANATIONS FOR THE DETERIORATION OF  
TERMS OF TRADE IN LDCs2.1 INTRODUCTION

The statistical debate regarding the secular trend in the TOT in LDCs indicates a declining trend, as shown in the previous chapter. As the phenomenon of the declining TOT in LDCs, the growing gap between the rich and the poor countries, became more and more apparent, explanations were sought and advanced for the malfunctioning of the "engine of growth". It soon became clear, that the rigorous Ricardian assumptions did not hold in reality, and it was alleged that, in general, circumstances so favoured the rich nations, that, they perpetrated the underdevelopment of the LDC's. As a consequence, most of the explanations for the deterioration of TOT in LDC's hinge upon the negation of the assumptions of the Ricardian model.

In this chapter we examine, very briefly, some of the earlier explanations advanced in the literature on the subject. We begin with the Prebisch-Singer thesis and incorporate the later developments based on biased-technological progress, and then go on to the explanation based on variable returns to scale. We also examine, cursorily, the recent Latin American Dependency thesis and finally turn to the "Unequal Exchange"

thesis of Emmanuel, which is of particular interest to us and examine it in some detail in the next chapter.

## 2.2 THE PREBISCH-SINGER THESIS<sup>1</sup>

The earliest explanation of the phenomenon comes from Prebisch and Singer. The structure of the P-S theory is rather complicated, because there are several hypotheses intertwined with the basic theory, which refutes the classical notion of free competition, especially in the factor and product markets in the centre, and attempts to show how deviations from competition in a dynamic setting, tend to appropriate to the centre, most of the increment in world income through increased productivity.

The decline in TOT is caused by disparate forces shaping international demand and supply.

The explanation of declining TOT as seen from the demand side, hinges on the disparity of the income and price elasticities of demand for imports at the Centre and Periphery. At the Centre, the income elasticity of imports is low (less than 1) while in the LDCs the same is usually greater than unity.

The low income elasticity at the Centre is attributed to Engel's law and to the agricultural protective measures

---

1. For our exposition of the Prebisch Singer thesis we rely heavily upon Prebisch (1950, 1959, 1963, 1964), Singer (1950, 1975), W. Baer (1961), J. Flinders (1964). For the criticism of this thesis we rely on Morgan (1959), Haberler (1959), Sodersten (1964), Johnson (1967) & Amin (1976).

practiced in many countries at the Centre. This lag in the growth rate of imports of primary products (at the Centre) is usually attributed to advances in technology, which Prebisch & Singer claim, has not permeated all productive activities or all countries evenly. A direct consequence of technical progress in DC's is more efficient use of the raw material inputs, leading to a decline in the raw material: output ratio; yet another effect is the increasing substitution of synthetics for natural products.

The consequence of the low income elasticity of demand at the Centre is that imports grow slower than national income and when this is combined with the higher rates of output (due to increasing productivity) in the LDC's too, it leads to a downward pressure on the prices of exports of periphery.

Meanwhile, the higher income elasticity of import demand in LDC, tends to either keep the import prices steady with increases in productivity at the Centre, or to increase the prices of imports if productivity does not rise fast enough, or if monopolistic elements in the Centre restrict supply. The net result is a deterioration in TOT for Periphery.

On the supply side, if competitive forces prevail it is usually expected that increases in productivity will lead to a fall in prices, with remuneration of factors remaining unchanged, or increasing less than increases in

productivity.

Now, productivity in the Centre increases faster than productivity in the Periphery and thus if prices had been reduced in both places, in proportion to the increased productivity, the TOT should turn in favour of the LDCs. What happens however, is that, as Singer asserts "..... the fruits of technical progress may be distributed either to producers (as increased incomes) or to consumers (as reduced prices); in the case of manufactures in DCs the increased incomes are preferred, while the latter prevails in LDC's."<sup>2</sup>

Prebisch & Singer claim that the productivity increases being matched by wage increases is mainly the result of strong trade-union pressures. Prebisch further claims that even if some margin were left for price reduction, this would not happen due to the monopolistic structure of the product markets in the Centre.

In order to understand the situation in the periphery, it is necessary to divide it into two sectors: (a) export (b) domestic.

Prebisch points out that productivity increases faster in (a) than in (b). Another feature that is implicit in all Economic Commission for Latin America (ECLA) writings is that the labour market in the Periphery is competitive

---

2. Singer (1950), p. 311.



i.e. there is unlimited supply of labour at subsistence wage in the wage sector.<sup>2</sup> The possible consequences of

the differential rates of productivity increases are two -

(1) If wages increased in the same proportion as productivity increases in the export sector (in the Periphery) then the export price would not change, but since the labour market is competitive this would create a situation wherein the domestic sector wage increase would be greater than the productivity increase there. Prebisch however believes that this will not happen.

(2) Instead, the increase of productivity in the export sector coupled with the low level of income elasticity for imports at the Centre leads to a large displacement of the workers and chances are that production will not increase substantially enough to absorb the redundant labour supply. This labour has to be absorbed in the low productivity domestic sector and this pressure of labour surplus will prevent wages from rising, and may even lower them. Thus, we see the fruits of increased productivity being transferred to the DC in the form of lower prices.

The policy implication following from the above was selective protection.

---

2. This point has been emphasised by Lewis, (1954) when he shows that in economies with surplus labour, low labour productivity in the subsistence sector is the critical determinant whatever the demand conditions and level of technology.

The P-S thesis has been criticised by several economists. Johnson (1967) alleges that Prebisch does not explain the conditions that allow the rising money wages to be translated into rising relative prices of manufactures. Haberler (1959) does not accept an explanation in terms of Engel's law. He insists that it cannot bear the heavy burden placed on it by Prebisch's theory. "It applies to food, in general, but not every kind of food ..... and every increase in income does not lead to a relative decline in demand for industrial raw material."<sup>3</sup> T. Morgan (1959) asserts that no single country can successfully hike money wages, because it would find itself in a competitive squeeze, and its export sales would decline and if export prices did not decline in the longer run, the exchange value of its currency would fall instead. This argument however seems to overlook the monopolistic position of the DC's.

Amin (1976) asserts that if technical progress releases labour power from primary production, it does the same in manufacturing and therefore a more credible explanation of the excess labour surplus would be in terms of the nature of the socio-economic forms of peripheral and central capitalism. In the latter, profit is the predominant income and when high profits are earned, they are reinvested and the labour released due to technical

---

3. Haberler (1959), p. 105

progress is partially compensated by the extra demand for labour, for producing capital goods.

In peripheral capitalism, however, rents are the predominant incomes and are spent on imported goods; and therefore excess labour is not absorbed even partially. Flanders (1964) tackles the problem of the effectiveness of the policy prescription to counter the decline in TOT and alleges that if the decline in TOT is attributed to the downward inflexibility of prices and wages in the Centre then a downward shift in the periphery's demand function for exports, will result in making the Centre worse off, through unemployment, without making the Periphery better off. In fact, by lowering the income and employment levels in the Centre, it would actually hurt the LDCs by reducing the demand for its exports. This argument does not take into account the price inelastic demand for imports in LDC's and also seems to neglect the fact that transfers to the Centre increase the surplus available for investment and combined with high wages generate a growing aggregate demand leading to an expansion of the size of the market. This point is reiterated in Emmanuel's thesis (2.5).

To sum up, the crucial point in the P-S thesis is that the spread of technical progress has been uneven and this has contributed to the division of the world economy into industrial centre and peripheral primary producing

countries, where the gap between the prices is widening.

The P-S analysis was further analysed in the neo-classical framework by Hicks (1953) and Johnson, who incorporate technical progress in the basic trade model.

Hicks (1953) showed that, if there were two countries - A & B, of which only A grows and B is stagnant then -

(a) export biased (pro-trade) growth in A would be the most favourable to B (if the assumption is that income remains constant in both countries). Here price of export of B remains constant, while that of A declines leading to an improvement in TOT for B;

(b) if the productivity gain is concentrated in the import competing sector, then it favours A the most and B's YTOT decline. The barter TOT will remain the same. This framework was further developed by Mishan E.J. (1955) who incorporated the income effect in the foregoing analysis. He pointed out that in order to determine the effect of growth on TOT, both the production and consumption effects of output expansion should be taken into account.

Johnson (1967) further elaborated this point and Bhagwati (1958) mooted the possibility of immiserising growth.

Thus, the Ricardian assumption of equal opportunities of technical progress and equal distribution of its gains internationally has been routed by Singer, Balogh (1963)

and others and has been replaced by the thesis of unequal opportunities of technical progress depending on the nature of specialisation.

### 2.3 VARIABLE RETURNS TO SCALE

Another explanation refutes the Ricardian assumption of constant returns to scale which had earlier been questioned by Graham (1923), Viner (1932) and Haberler (1950). In recent years also several attempts have been made in this direction. Melvin (1969) pointed out that the assumption of constant returns to scale in the H.O.S. Theorem is crucial because it cannot be proved without this assumption.

Markussen & Melvin (1981) develop a 2 good, 2 country model where one good is produced with increasing returns to scale and the other with constant returns.

To specify the model -

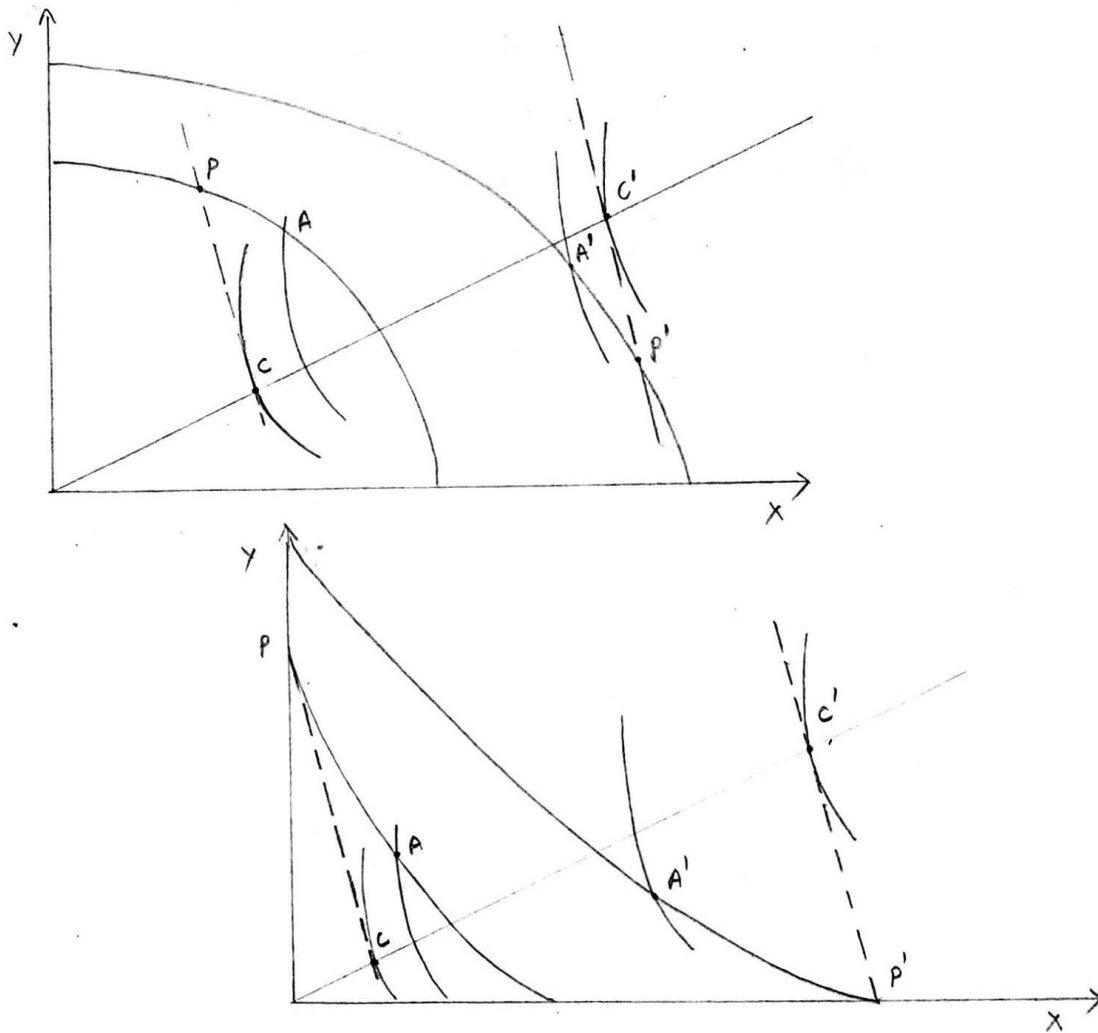
- (a) Two goods (X, Y) are produced each using 2 factors of production capital and labour. Production functions are identical between countries.
- (b) Production functions of individual firms in both industries are homogeneous of degree 1.
- (c) Factor intensities differ between industries and are non-reversing. X is assumed to be relatively labour intensive.
- (d) There are economies of scale internal to X industry, such that the industry production function is

homogeneous of a degree greater than one.

- (e) There are two countries (L & S) which have identical capital-labour endowment ratios. Country L however has more of both factors.
- (f) Demand in each country can be represented by a set of community indifference curves, which are identical and homothetic in each country.
- (g) There are no domestic distortions except the externality mentioned above.

They assume that countries differ in size to show how increasing returns can influence the direction of trade. They demonstrate then that there will exist at least one stable equilibrium, in which the large country exports the good with increasing returns.

They also show that increasing returns may imply that one country, (but not both) is worse off at a free trade equilibrium relative to autarky and that because of the production externality, a necessary condition for a small country to gain is that the price of its export good is increased by trade (relative to autarky); the same condition however, is a sufficient condition for the large country to gain from trade. To show the gains from trade M & M illustrate the problem. thus -



In both these figures L & S are producing and consuming at points  $A'$  and  $A$  respectively, in the absence of trade.

In free trade country S produces at  $P$  and consumes at  $C$ ; for country L the corresponding points are  $P'$  and  $C'$ . The trade vector  $P'C'$  and  $PC$  are of equal length and slopes as required for trading equilibrium. Both show country L gaining from trade and S losing.

#### 2.4 THE DEPENDENCY THESIS

A radically different explanation comes from the

Latin American Dependency theorists<sup>4</sup> who seek to examine the uneven development of the world economy and the growing gulf between the rich and poor nations. They essentially contradict the Ricardian assumption of the equality of the partners participating in international trade when they develop the core-periphery relationship. This theory has many versions but we can quote Dos Santos (1970) for a definition of 'dependency'.

"By dependency we mean a situation in which the economy of certain countries is conditioned by the development and expansion of another economy, to which the former is subjected. The relation of interdependence ... assumes the form of dependence, when some countries (the dominant ones) can expand and be self sustaining, while other countries (the dependent ones) can do this only as a reflection of that expansion ....."<sup>5</sup>

The concept of 'development of underdevelopment' is thus built around the idea that capitalism necessarily produces cumulatively growing differences between the core and periphery. This is best seen in the three hypothesis put forward by Frank (1966).

1. The development of subordinate countries is

4. We deal here with the work of Frank (1978), Dos Santos (1970), and Furtado (1972) and draw on the article by Stein (1979).

5. Dos Santos (1970), p. 109 in Wilber (1973).



constrained by their satellite status.

2. Satellites experience their greatest economic development if and when their ties to their metropolis are weakest.
3. Today's most underdeveloped regions are the ones that had the closest ties to the metropolis in the past.

Generally speaking, the dependency theorists assert that the development of the Periphery is restricted by the narrowness of markets, by Balance of payments constraints and by technological dependence. We now discuss these constraints -

LDCs produce a narrow range of staple raw materials for export (which have very few linkage effects and limit the growth of the internal market). Besides, incomes are very unequal, and much of the surplus flows out of the country, so that the mass market for consumer goods is limited in size. 'Import substituting' industrialisation involves capital intensive techniques, which perpetrate the low wages and keep the market narrow, further constricting development. Furtado (1973) suggests a further factor: consumption patterns among the elite are copied from those of the more advanced countries, and the result, is to bias demand towards imports or goods produced by capital intensive methods, thus reinforcing the problem.

The BOP problem is partly explained by the consumption

patterns in LDCs. Besides, the modern production methods require imported capital goods, imported components and materials. Not only this, the dominant countries because of their financial powers, gain control over the productive resources of the dependents and extract from them, in interest, profits and other payments, sums which far exceed their remittances to the Periphery. The BOP is thus a constant problem.

Lastly, they emphasise the technological dependence of the periphery. The technological progress under the control of the Centre sets the consumption patterns and thus becomes the decisive factor in the structuring of the productive apparatus of the periphery, which in consequence becomes dependent. Singer (1975) reiterates this when he says that "the one-sided concentration of technology in advanced countries creates a condition, both of continued and sharpening dependency and unemployment and inequalities within the developing countries."

In recent years the role of the MNC's in conditioning and strengthening dependency has been emphasised by Muller (1973), Sunkel and others.

This thesis has been frequently criticised as not being based on fact or logic, and Frank's hypotheses in particular, are said to be subject to the 'post hoc, ergo propter hoc' fallacy.

Brewer, on the other hand, points out that all the

arguments advanced by the dependency theorists hinge on an implicit assumption of a predetermined pattern of specialisation between countries and to give a solid foundation to these arguments it is essential to provide an explanation of this pattern of specialisation. Emmanuel in his U.E. thesis overrules this objection when he emphasises the income position of the country rather than the pattern of specialisation. Emmanuel thus supports the dependency thesis with his analysis of international prices.

#### 2.5 THE UNEQUAL EXCHANGE THESIS

Emmanuel's U.E. thesis can be assimilated in the long tradition in development economics. It is a mixture of the static 'unfairness' argument, with the expectation of a deterioration of TOT in LDCs. Emmanuel vehemently insists that the phenomenon of long run deterioration of TOT of Third World is inexplicable within the framework of prevailing theory, and any attempts to save it by putting forth explanations based on elasticities of demand are quite vain, and are in fact post-factum adjustments with a view to accounting for troublesome historical facts. Thus only a thorough revision of the theory would enable it to cope with the reality.

He therefore puts forth the U.E. hypothesis where he refutes the two most basic hypothesis of traditional trade theory -

(a) Determination of prices by the market. He substitutes

for this an institutional determination of wages.<sup>1</sup>

- (b) The immobility of labour and capital - This is replaced by a relative mobility of capital, sufficient to give rise to a tendency for world-wide equalisation of the rate of profit and a relative immobility of labour allowing considerable predetermined disparities in wage rates between countries.

The purely logical aspects of this literature, concern the extension of the Marxist transformation problem to the sphere of international trade. The arguments are presented in Marxian value theory terms, but their neo-classical counterpart is as follows - U.E. arises from the fact that wages are higher in the developed North, than in the developing South. Trade, under these conditions is unequal to the South, in the normative sense, that its TOT and income levels, are lower than they would be under a Pareto-efficient trade arrangement, allowing for perfect international labour mobility.

The income position of the country, rather than its pattern of trade and specialisation, as a source of the expected trend of TOT is strongly emphasised in this thesis.<sup>6</sup> As an extension, moreover, a dynamic "reverse Mides touch" is incorporated into this thesis viz. - any

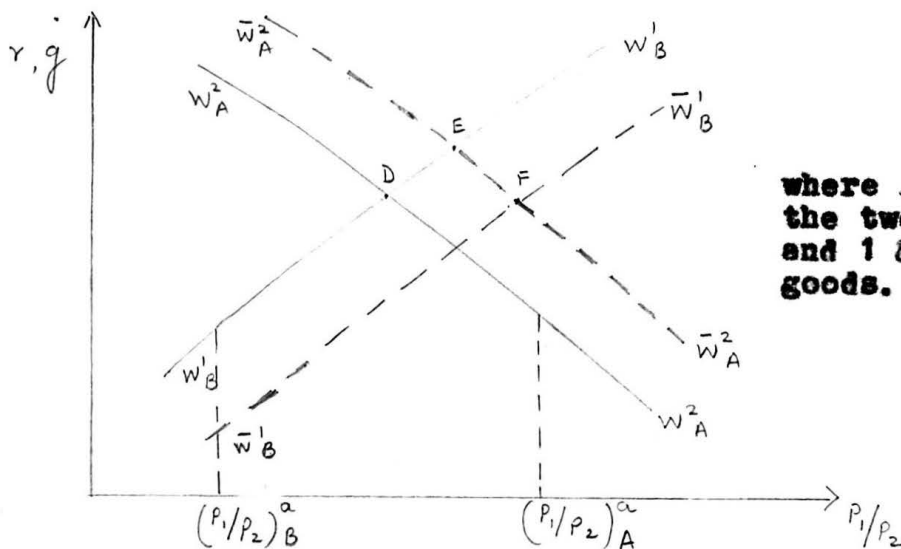
---

6. Singer (1975) also stresses this point.

good which enjoys favourable TOT while being in the production and export domain of the rich nation is expected to have the TOT trend reversed once its production and export are taken over by the poor.

The U.E. thesis is really a generalised form of the P-S & Lewis models<sup>7</sup>, and can be used to show the inequality of the transmission of the benefits of technical changes.

Taking as the starting point the international equilibrium, with wages given autonomously and the rate of profit (growth) equalised internationally, Saigal shows -



where A and B are the two countries and 1 & 2 are the goods.

Here  $W_A^2$  refers to country A specialising in commodity 2, and  $W_B^1$  refers to country B specialising in commodity 1.

Now, an improvement in productivity of labour in A, will shift  $W_A^2$  function upwards to  $\bar{W}_A^2$ . While an increase in wages in B, will shift the  $W_B^1$  function

---

7. This is demonstrated by Evens (1976) using Saigal's model.

downwards to  $\bar{W}_B^{-1}$ .

Hence, when there is an improvement in productivity in A, at unchanged wages, shifting  $\bar{W}_A^2$  upwards, the TOT worsen for country A (a shift from D to E is a decline in TOT for A, which specialises in commodity 2). There is however a rise in the rate of profit (growth).

If there is a subsequent rise in the wages in country B, reflected in  $\bar{W}_B^1$  shifting downwards, and restoring profits to previous levels, then, there is a further deterioration in the terms of trade for the low wage country A, shown by F.

Thus if there is a difference in bargaining power of workers between rich and poor countries, the poor countries will be pushed further and further into unequal exchange.

CHAPTER IIITHE UNEQUAL EXCHANGE HYPOTHESIS3.1 INTRODUCTION

One of the major explanations for the deterioration of terms of trade is the Unequal Exchange (UE) thesis. The term 'UE' is not new, and has often been used, usually very loosely, in the context of monopoly pricing, transfer pricing or differences in productivity of labour over countries.

It is Emmanuel's theory of 'UE' set out in his book "Unequal Exchange: A Study of the Imperialism of Trade - (1972) that is dealt with here. This theory is "..... aimed at ..... economists of all tendencies in a common language ....."<sup>1</sup> and is thus, in complete contrast to the main traditions of Marxist thought on imperialism and is equally distant from conventional non-Marxist theories. Unlike the Marxists, who generally identify the mainspring of imperialism either with the development of monopoly in exchange (Frank) or in production (Lenin), or with the expansion of capitalism at the expense of pre-capitalist modes of production (Luxemburg), Emmanuel studies the imperialism of free trade. He claims that free trade between two wholly capitalist countries, can still be

---

1. Emmanuel, (1972) Appendix II, p. 323.

'unequal' and this can be the foundation of the massive inequalities that exist in the world economy. The mechanism that he uses to explain this inequality does not rest on any monopoly by capitalist firms, neither does it involve any exercise of state power in international relations.

What he does is to extend Marx's theory of prices of production to the determination of international prices, making the key assumptions that goods and capital are mobile internationally, while labour power is not, so that profits and prices are equalised internationally by competition, while wages are not.

### 3.2 OBJECTIVES

The UE thesis launches a two-pronged attack on the existing literature on the problem:

- (a) On the theoretical plane
- (b) On the practical plane.

#### 3.2.1 On the theoretical plane

The classical economists had recognised the fact that international exchange value would not be determined in the same way as value in the national market. This difference between national and international value arose out of the immobility of factors of production.

Emmanuel contends that, in reality, the Classicists were only interested in equalisation of the profit rates, since wages were, always and everywhere the same, because



irreducible. Marx modified Ricardo's conception of wages by introducing a social and historical element in the determination of the value of labour power. The cost of living then ceased to be an invariable datum. Even with this modification there is no difference between the Ricardian and Marxian theories in the following cases -

- (a) both factors are mobile
- (b) both factors are immobile
- (c) capital is immobile and labour mobile.

✓ It is only in the case where capital is mobile and labour immobile that the 2 systems diverge: in the Ricardian system there is no difference between national and international value; in Marx's system, however, prices of production cannot apply without some modification, since they result from two equalisation processes, profits and wages, and here wages can differ and affect price, while profits are equalised - i.e. prices can no longer be the same in both the settings, national and international.

It is this last case that Emmanuel is interested in, where there is sufficient mobility of capital to ensure that essentially international equalisation of profits takes place, and sufficient immobility of labour, to ensure differences in wages, so that a modification of the propositions of prices of production is made necessary.

Thus, on the theoretical plane, Emmanuel undertakes the task of integrating international value in the general

theory of value.

### 3.2.2 On the practical plane

Ricardo was interested only in showing that free trade would benefit the world and the parties indulging in trade. He was not really interested in the formation of international exchange value. Therefore, in his famous example Ricardo had shown that after adopting their respective specialisations, both countries gain, but the proportion in which the gain is shared is not investigated. The domestic relative price ratios of the two countries set the limits to the formation of international value and its precise determination was left to the reciprocal demands of the two countries.

It was thus ensured that under any circumstances, trade if not actually beneficial to both, would never harm any country.

The terms of trade between manufactured goods and primary goods has always interested economists and as pointed out in Chapter I, the classical economists had been unreservedly pessimistic about prices of manufactures, and unhesitatingly optimistic as regards prices of primary products. As Torrens put it "..... the value of raw produce is, in the progress of society, perpetually increasing with respect to manufactured goods."<sup>2</sup>

---

2. Robert Torrens - Essay on Production of Wealth (1821), p. 145. Emmanuel op.cit. p. xxix.

It was only after the second world war that economists began to question this complacency. The deterioration of TOT for the LDC's, the exporters of primary products was hotly debated. Explanations were based mainly on price elasticity of demand, income elasticity of demand, development of synthetics etc.

Emmanuel however feels that these efforts made to explain the opposite tendency shown by reality, without breaking out of the framework of the comparative cost doctrine, were merely rationalisations.

He attributes this failure to the fact that there is no such tendency characteristic of certain products. The "worsening of TOT for primary products" is an optical illusion. It results from a mistaken identification of exports of rich countries with manufactures and of exports of poor countries with primary products.

"The copper of Zambia, or the Congo and the gold of S. Africa are no more primary than coal which was only yesterday one of the chief exports of Great Britain .....; before they are exported coffee, cocoa, and cotton (esp. cotton), have to undergo a machine processing no less considerable (if not more so) than in the case of Swedish or Canadian timber ..... ; bananas and spices are no more primary than meat or dairy products. And yet the prices of the former decline, while those of the latter rise, and the only common character in each case is that,

they are respectively, the products of poor countries and rich countries."<sup>3</sup>

One of the most striking examples cited by Emmanuel is that of textiles, which were formerly among the pillars of the wealth of industrialised countries particularly Britain but which, since they have become the speciality of poor countries, hardly fetch starvation wages for the workers, even with up-to-date techniques. This leads him to the question - "Was there by an amazing coincidence, a reversal in elasticities of demand at the moment when the change of location took place?"

Emmanuel thus, on the practical plane wishes to investigate if there are really certain products that are under a course, or whether there is a certain category of countries, that, whatever they produce, always exchange a larger amount of their national labour for a smaller amount of foreign labour.

### 3.3 METHODOLOGY

In order to accomplish his tasks, Emmanuel begins by explicitly defining a factor of production under conditions of the production relations of commodity economy, capitalist or pre-capitalist, as "an established claim to a primary share in society's economic product."<sup>4</sup>

3. Emmanuel, *ibid*, p. xxx.

4. Emmanuel, *ibid*, p. 1.

Thus defined, the factors of production in Emmanuel's thesis are labour, capital, rent and indirect taxes.

Emmanuel deals with the determination of equilibrium prices in internal as well as external exchange, and shows how UE emerges in the latter.

### 3.3.1 Internal Equilibrium Prices

He discusses the formation of internal equilibrium prices under two types of production relations -

- (1) simple commodity production
- (2) capitalist production.

(1) Under simple commodity production labour is the only factor - the only basis for a claim on the product and in this case it makes no difference whether exchange value is measured by the amount of labour embodied or by its reward, i.e. the labour theory of value and the cost of production theory amount to the same here.

(2) Under capitalist production we can again distinguish 2 cases -

- (a) when capital and labour are used in equal proportions in all lines of production. The determination of value in this case is similar to (1) above.
- (b) When capital and labour are used in different proportions, as happens usually, then the calculation of exchange value on the basis of respective amounts of factors and calculation on the basis of cost of production diverge. In fact

here, "the exchange value cannot be formed apart from the rewards of the factors, since the only common denominator between the two factors, that makes the sum of their amounts commensurable is the rate at which they are rewarded."<sup>5</sup>

It is here that Emmanuel deals with the transformation of values into prices of production and contends that Marx's prices of production are equilibrium prices.

### 3.3.2 External Equilibrium Prices

Emmanuel examines whether the process by which internal exchange values are formed, could be applied to exchange between countries. Here he assumes that -

- (a) there are only 2 factors, labour and capital,
- (b) there is a perfect system of free trade,
- (c) transport costs are ignored.

It is pointed out that, there would be no difference in international exchange value formation except for the influence that the political fact of division of the world into countries, may have upon the mobility of factors.

"If factors were as mobile outside countries, as inside it, the specificity of international value would vanish and the propositions of prices of production set forth in the context of internal exchange, would be adequate to account for any and every exchange, wherever it occurred."<sup>6</sup>

5. Emmanuel, *ibid*, p. 15.

6. Emmanuel, *ibid*, p. 37.

Immobility of factors has thus been the basis on which economists in general have distinguished between national and international exchange value, inspite of the paradox this led to in the Marxist school.<sup>7</sup>

Emmanuel cites empirical and statistical evidence<sup>8</sup> to show that in reality capital is mobile internationally, leading to a tendency to profit rate equalisation internationally.

Regarding the wage rate, however, he points out that there is not the slightest hint of a tendency towards the equalisation of wage rates internationally. In fact, he estimates that, allowing for the direct and indirect social benefits, the average wage in the DC's is about 30 times the average wage in the LDC's, or allowing for the differences in the intensity of labour<sup>9</sup>, about 15 times.

- 
7. The paradox lies in the fact that the Marxists who have paid so much attention to the phenomenon of migration of capital in search of higher profits (economic imperialism) accept that international value is formed as though the capital factor is completely immobile and there is no tendency to equalisation of the rate of profits on the world scale.
  8. He refers to the 'migration of capital' in the wrong direction, i.e. from LDC to rich countries as evidence to show that equalisation of profits does occur.
  9. He estimates the intensity of labour - the output of labour given the same equipment - of the average workers in LDC at 50-60% of that of the average worker in DC.



Emmanuel thus constructs his model on the basis of the assumption of mobility of capital<sup>10</sup> and immobility of labour.

Now, if the two countries have different wage levels, there are two possible circumstances under which profits can still be equalised between them, without any product having two different prices (which is ruled out by the assumptions of mobility of goods and free competition).

(1) When they produce the same goods - In this case profits can only be equalised if the high wage country has higher productivity, so that their prices of production are the same. In this case the wage differences correspond (under conditions of perfect freedom of trade and competition and equalisation of profit rate) to, and are explained by productivity differences. In fact this is the only case where productivity determines wages.

Emmanuel accepts that this explanation applies to some goods, but he does not treat it as the normal case.

(2) When they produce wholly different commodities. - In this the more general case, the two groups of countries, DCs and LDCs do not export the same products and the problem of competition between groups on the commodity market does not arise. They specialise in wholly different products.

---

10. He points out however, that "what matters is not whether mobility is perfect or imperfect, in itself, but whether it is sufficient to bring about equalisation of profits" - p. 44.



This is the case in which unequal exchange can occur, because if one good is produced in a high wage country and the other in a low wage country (with the same amount of K & L) then the price of each must reflect the differences in wages.

### 3.3.3 Unequal Exchange

Emmanuel discusses two forms of unequal exchange:

- (1) UE in the broad sense
- (2) UE in the strict sense.

We now elaborate each of these -

(1) This is the Primary form of non-equivalence and arises merely out of the transformation of values into prices. The assumptions made here are:

- (a) There is competition between capitals leading to a tendency to profit equalisation
- (b) The same rate of surplus value (same general wage rate) prevails in each country.
- (c) Total surplus value = total profits.
- (d) There are two systems A & B, each of which is made up of 3 branches; the organic composition of capital (OCC) is different between these branches and also between the two systems.
- (e) There is a predetermined pattern of international specialisation.

We begin with the autarky positions of systems A & B.

System-A

Branches	C	V	S	(C+V+S)	$\frac{\sum S}{\sum (C+V)}$ (T)	P T(C+V) Profit	C+V+P P. o. p.
I	80	20	20	120		20	120
II	90	10	10	110	20%	20	120
III	70	30	30	130		20	120
	240	60	60	360		60	360

System-B

Branches	C	V	S	(C+V+S)	$\frac{\sum S}{\sum (C+V)}$	Profit	Prices of Prod.
I	40	20	20	80		20	80
II	50	10	10	70	33.33%	20	80
III	30	30	30	90		20	80
	120	60	60	240		60	240

Now, when free circulation of capital is introduced between these two systems, there is an equalisation of rates of profit.

At this point, Emmanuel introduces a distinction between constant capital invested (K)<sup>11</sup> and capital consumed,

---

11. K is identified with constant capital and is the sum of constant capital both fixed and circulating and variable capital, weighted by their respective turnover rates whatever they may be in each particular case. p. 58.

and assumes that the latter is constant to neutralise its effects and better bring out the effects of  $K$  upon prices. The 2 systems now together.—

Cy.	K	C	V	S	(C+V+S)	$\frac{\sum S}{\sum K}$	Profit	P.o.p.
A	240	50	60	60	170	33.33%	80	190
B	120	50	60	60	170		40	150
	360	100	120	120	340		120	340

It is now evident that, the past and present labour consumed in production in country A, obtains for 170 units of its national labour, 190 units of international labour; while B obtains 150 units of international labour for 170 units of its national labour, i.e. the products of A & B that embody the same amount of labour, past and present, do not exchange at par (i.e.  $1A = aB$ ), but in proportion of  $190B = 150A$  ( $1A = 1.26B$ ).

This is the type of non-equivalent exchange discussed by Marx. A.E. however denies<sup>12</sup> that this is UE, though there is a transfer of surplus from B to A.

(2) UE in the strict sense

This arises due to unequal rates of surplus value in the two countries. The assumptions here are:

---

12. His reasons for doing so are explained in 3.3.5.

- (a) Competition of capital leading to equalisation of profit rates.
- (b) Unequal rates of surplus value in A & B. Wages in A are 10 times as high as in B, but allowing for double the intensity of lab in A, as compared to B, the cost of labour power in A is 5 times that in B.
- (c) Organic composition of capital is unequal (in the example shown here)<sup>13</sup>

The two systems, in this case appear as -

Cy.	K	C	V	S	(C+V+S)	$\frac{\sum S}{\sum K}$	Pro- fit	P.o.p.
A	240	50	100	20	170	33.33%	80	230
B	120	50	20	100	170		40	110
	360	100	120	120	340		120	340

Here the terms of exchange have worsened even further, since now  $230B = 110A$  i.e.  $1A = 2.09 B$ .

It should be noted that the theory of UE does not refer to the amounts actually produced and traded; it is a theory of prices, of the terms of exchange and depends on the cost per unit of each product and on the wage rate.

13. If the OCC were equal, i.e. if  $K = 240$  in both A & B, then their products embodying 170 hrs. of labour, would exchange at  $210B = 130A$  (i.e.  $1A = 1.6B$ ). Here it is clearly the inequality of wages, ceteris paribus, that is the cause of the unequal exchange.

"Unequal exchange is thus the proportion between equilibrium prices that is established through equalisation of profits between regions in which the rate of surplus value is "institutionally" different, institutionally meaning that, they are for whatever reason safeguarded from competitive equalisation on the factor market and are independent of relative prices."<sup>14</sup>

The crucial assumption made here is that wages are the independent variable, and intuitive and empirical grounds are offered to support this contention.

#### 3.3.4 The theory of wages

Emmanuel does not accept the classical proposition of wage determination by the physical subsistence needs. Instead, he adheres to the Marxian position. Marx had introduced the historical and moral element in the determination of wages, thus adding a new dimension to the biological basis of wages. Emmanuel builds up his entire theory of wages on a phrase from Marx's Capital - "... in a given country, at a given period, the average quantity of the means of subsistence necessary for the worker is also given."<sup>15</sup>

Emmanuel therefore contends that here and now, all other things being equal, the equilibrium wage is

---

14. Emmanuel op.cit. pp. 63-64.

15. Emmanuel ibid, p. 109. Marx 'Capital' - 1:171.

"something given", an independent variable. This "something given" is called 'institutional' because it is based upon man as a social being, upon men's needs and "demands on life", as they have been shaped by a very long and slow process, in which the accumulated body of tradition and habits plays a crucial part.

It is also pointed out that since men's needs undergo historical evolution, the institutional factors, that determine the equilibrium wage in the first instance, are not accidental exogenous factors, but are in the final instance, based upon the economic foundations of society. It is the uneven development of the world, that has determined the differences in the subsistence minimum, and the different "demands on life", and thereby the differences in wage levels.

In order to explain why this historical-moral element changes over time and its difference between countries, he takes recourse to political or trade-union factors.

It is further insisted that there is a 'dialectical' interaction between the movement of wages and economic development. Economic development by centralising workers, by creating the need for higher levels of skills etc., makes conditions more favourable for trade unions and political action to increase wages; on the other hand, high wages also favour development, so that a vicious/virtuous circle of wage levels and development is set up. Thus, in the

context of a long enough timescale, wages cease to be the independent variable, and become part of this circle.

### 3.3.5 Difference between the two forms of Unequal Exchange

It is claimed that this difference is not one of degree but of quality. Several reasons are advanced for this:

- (1) Non-equivalence in the broad sense exists in every exchange that occurs under the capitalist system whether inside or outside a nation. This is not a phenomenon peculiar to foreign trade, since exactly the same occurs between regions and between branches of production inside one country. It is the result of the transformation of values into prices, taking place in each country, and cannot be used to explain 'unequal exchange'.
- (2) Another fundamental difference between the two is that UE in the broad sense is inevitable even in a model of perfect competition (and is independent of the degree of competition or imperfections). It is due, partly, to the specific technical features of the different branches. Thus a constant increase in the OCC is a structural feature, a necessity of capitalist development, i.e. the difference in OCC is an objective condition of capitalist production.

UE due to differences in wages, however, is due to imperfect competition in the labour market,

caused by distances and political frontiers etc., and proportionate to the imperfection of this competition. Disparity in wages is thus an institutional factor.

- (3) Differences in OCG cannot lead to a decline in barter terms of trade or single factorial TOT,<sup>16</sup> and can lead to a decline in double factorial TOT,<sup>17</sup> if and only if, we postulate that country A has no right to any special payment for the fact that it had to wait for the time required to accumulate 240 units of K, before exporting its goods, while country B had to accumulate only 120 K.

In the case of UE due to inequality of wages however, the low wage country faces a decline in all TOT, factorial and barter.

Thus Emmanuel feels that differences in OCG and OCL<sup>18</sup> constitute (under the conditions of concrete capitalist relations) a factor in development but not in UE, except indirectly when development results in an increase in

16. Single factorial TOT is defined as

$$S = N \cdot Zx$$

where N = net barter TOT (NBTOT)

Zx = the export productivity index.

17. Double factorial TOT correct the NBTOT for changes in productivity of imports and exports.
18. OCL - The organic composition of labour refers to the ratio between the number of living workers and the amount of social labour to which their specific labour can be reduced, p. 138 - Emmanuel (1972).



equilibrium wage as explained above (3.3.4).

Following from the fact that the high wage countries exploit the low wage countries, Emmanuel examines the question of "labor aristocracy" of the "aristocratic countries". In this context he points out that the labor aristocracy has steadily grown aware of the fact that they belong to the privileged exploiting nations, but this does not mean that the antagonisms within the developed capitalist countries have disappeared. Whether the wages are high or low, and the social product is large or small, the two shares - wages and profits continue to be inversely proportional to each other and so the antagonism continues. It is only "when the relative importance of national exploitation of the proletariat diminishes continually, as compared with that, from which it benefits through belonging to a privileged nation, a time comes, when the aim of increasing national income in absolute terms, prevails over that of improving the relative share of wages or profits ..... and from that point onward, a de facto, united front of the workers and capitalists of the rich countries, directed against the poor countries, co-exists with an internal trade union struggle over the sharing of the cake."  
 (Emphasis added).<sup>19</sup>

---

19. Emmanuel op.cit., p. 180.

### 3.4 The International Equilibrium Prices, with more than 2 factors

Thus far, Emmanuel had dealt with only 2 factors capital and labour; once the other factors (rent, indirect taxes) are introduced the general formula for the international prices of production of a branch 'i' becomes -

$$L_i = C_i + V_i + f_i + P_i$$

where  $f_i$  is the sum of the prices of other possible factors.

The general rate of profit will now be

$$T = \frac{\sum S - \sum f}{\sum K}$$

where  $K$  is the capital invested and  $\sum S > \sum f$  (or else  $T$  &  $P_i$  would be negative).

#### The effect of other factors on the Terms of Trade -

All other things being equal, it is fully in the interest of the LDC that the average world profit rate should decline (since this would put the country with the higher OCC at a disadvantage) regardless of the cause of this fall. It is also evident, that every increase in other factors leads to a decline in the average profit rate and therefore, the addition of other factors, even if the level of these factors is the same, in both the countries, is essential. Extending the same example as before when the terms of exchange were  $190B = 150A$  i.e.  $1A = 1.26B$  (with only 2 factors) we get the following -

Case I - Other factors greater in A

Cy	K	C	V	S	(C+V+S)	Other f	$\frac{\sum S - \sum f}{\sum K}$	Profit	P.o.p.
A	240	50	60	60	170	38	20%	48	196
B	120	50	60	60	170	10		24	144
	360	100	120	120	340	48		72	340

Here 1A = 1.36B.

In this case although B's TOT have been worsened by the addition of 'other' factors, they have not been worsened to the full extent of the excess of the 'other' factors in A, due to the offsetting effect of the diminution of average rate of profit.

Case II - Other factors: greater in B

Cy	K	C	V	S	(C+V+S)	f	$\frac{\sum S - \sum f}{\sum K}$	Profit	P.o.p.
A	240	50	60	60	170	10	20%	48	168
B	120	50	60	60	170	38		24	172
	360	100	120	120	340	48		72	340

Here 1A = .97B.

Case III - Other factors equal in A & B

Cy	K	C	V	S	(C+V+S)	f	$\frac{\sum S - \sum f}{\sum K}$	TT	P.o.p.
A	240	50	60	60	170	24	20%	48	182
B	120	50	60	60	170	24		24	158
	360	100	120	120	340	48		72	340

Here 1A = 1.19B.

The specific case of effects of taxes (one of the factors of production) on exports/imports, on TOT, and Trade balance is investigated. Briefly, six cases of elastic and inelastic demand under constant, increasing and decreasing costs are discussed -

1. Constant Costs - inelastic demand
2. Constant Costs - elastic demand
3. Increasing Costs - inelastic demand
4. Increasing Costs - elastic demand
5. Decreasing Costs - inelastic demand
6. Decreasing Costs - elastic demand.

He contends that an export tax can be a very useful device for an LDC, since in most of these cases the NBTOT improves in proportion to the tax; in cases (5 & 6) it improves more than proportionately to the tax, and only in case 4, is there a less than proportional improvement in NBTOT.

The trade balance, however, would decline in most cases (except in 1 & 3) in direct proportion to the degree of elasticity.

### 3.5 POLICY IMPLICATIONS

Following from the discussion so far, it is evident, that it is not possible for the low wage countries/<sup>to</sup>overcome the advantage enjoyed by rich countries, by themselves specialising in the branches favoured by the UE of the moment, since a "branch" is not 'dynamic' intrinsically.

but only becomes so, when it is taken up by a high wage country. The choice before the LDC is thus between autarky and unequal exchange. Emmanuel suggests the following policy measures to prevent the leakage of surplus value from LDCs.—

- (1) A common market of LDCs.
- (2) A policy of diversification.
- (3) The levy of an export tax.

(1) Ideally, a sort of a common market of the LDC's, where production and exchange is planned to meet the needs of the LDC's and the surplus of factors is directed into production of import substitutes, would help them to be entirely independent of other countries, and thus escape UE. But, such a possibility lies outside the scope of the conditions assumed here, i.e. competition between producers on national and international planes.

(2) If living without external exchange is a practical impossibility, then a policy of diversification, by transferring a part of the resources from the traditional export branches that can replace imports would yield a twofold gain -

- (a) they would benefit from the mere fact of the reduction of the volume of exchange (since loss from UE is the product of TOT and the ratio of the volume of external exchange to national product);

(b) they also again through the reinforcement of their power to bargain over prices of their traditional exports, resulting from the diminution in the quantities produced and exported. Thus whoever takes the initiative in diversification holds an advantage.

Here Emmanuel makes a rather nebulous point when he states that diversification is easier for the UDC's, than it is for the DC's "..... it would certainly be very expensive for the periphery to make its own automobiles and computers, but comparatively less so than it would be, for the centre to cultivate coffee or to raise elephants for their ivory."<sup>20</sup>

(3) Following from the investigation of the impact of the export taxes on the TOT and Trade Balance, a tax on exports, that transfers the excess surplus value to the state, is suggested as another solution. This additional revenue is to be directly used, to finance investment projects, i.e. for development purposes.

Emmanuel warns us, however, that this policy presupposes an agreement between the several producing countries, and to that extent is difficult to apply - except when there is a natural monopoly. Also, this is an aggressive policy and entails the risk of provoking very

---

20. Emmanuel *ibid*, p. 423.

sharp reactions and reprisals on the part of the consuming countries.

In conclusion Emmanuel asserts that Unequal Exchange, though unable to explain the entire difference between the standards of living of the rich and poor countries, is still the elementary transfer mechanism, enabling the rich nations to begin and regularly give new impetus to the unevenness of development that sets in motion the other mechanisms of exploitation.

This exchange of non-equivalents had never been noted in established economic science (except as a momentary accident of market-price fluctuation or as the effect of imperfect competition). Economists, objectivists and subjectivists alike had denied unequal exchange - the former because for them exchange is always equal in a situation of equilibrium, and the latter because there is no such thing as either unequal or equal exchange in itself, since equivalence is an ex post market phenomenon. The worsening in the terms of trade over a long period was treated as a statistical illusion or relegated to structural tendencies of elasticities of demand. Emmanuel however asserts that the worsening in the double factorial TOT cannot be denied and resorts to the study of world production relations to explain this 'exploitation at a distance'. This leads him he says to "..... legitimately harbour a few doubts as to the intrinsic value of the international division of

labour."<sup>21</sup> Finally, if the concept of a world economy is to have any meaning at all, and if the poor countries are not to pay the costs of the world optimum, then it would be necessary to set up internationally such mechanism of redistribution as already exist on the national scale.

We present a critique of Emmanuel's hypothesis in the next chapter.

---

21. Emmanuel (1972), p. 269.



CHAPTER IVA CRITIQUE OF THE UNEQUAL EXCHANGE HYPOTHESIS4.1 INTRODUCTION

The Unequal Exchange thesis has given rise to a host of critical writings. These come from Marxists as well as non-Marxists, all of whom (with the exception of Samuelson (1977)) admit that U.E. does take place, but object to one or the other aspect of Emmanuel's thesis.

Briefly, the main points of criticism advanced against Emmanuel are as follows:

1. The U.E. thesis is not Marxist in nature (contrary to appearances). (Bettelheim (1972); Pilling (1973); Agh (1980); Amin (1974)).
2. The distinction between the two categories of U.E. is not valid (Bettelheim (1972)).
3. Wages do not constitute an independent variable (Pilling (1973); Bettelheim (1972); Evans (1976); Mandel (1978); Best (1976); Amin (1974); Frank (1978)).
4. Low wages do not entirely explain U.E. - productivity differences are important. (Szentos (1979); Amin (1972); Brewer (1980); Clunies Ross (1976); Michael Berrat-Brown (1974)).
5. The assumption of international equalisation of profit rate cannot be sustained. (Mandel (1978));

- Samuelson (1977); Dandekar (1979); Agh (1980)).
6. U.E. assumes identical techniques of production in both the countries (Evans (1976)).
  7. Trade and U.E. will not take place in Emmanuel's example (Sau (1978); Samuelson (1977)).
  8. The policy implications are not valid. (Clunies Ross (1976); Findley (1981); Evans (1976)).

We now discuss these points in some detail, before we present some of the modifications suggested by these critics.

#### 4.2 THE U.E. THESIS IS NOT MARXIST IN NATURE

Bettelheim, Pilling, Agh, Amin all vehemently state that Emmanuel's method and the categories he uses have little in common with those of Marx. The points made by these Marxist critics can be broadly explained as follows:

1. Emmanuel starts with mercantile imperialism, as against Lenin's treatment of imperialism as a definite stage in the evolution of capitalism.
2. Emmanuel's theory of value is at odds with Marx's theory of value.
3. Emmanuel replaces the exploitation by classes with exploitation by countries.

##### 4.2.1 Refutation of Lenin's Theory of Imperialism

For Emmanuel the division of the world into rich and poor countries is not the result of economic forces endemic to capitalism. Instead, the structure of world economic

relations are sought to be explained from the standpoint of forces that predate imperialism (i.e. mercantile imperialism).

Pilling's objection to AE's treatment of trade is not that it has no place in a discussion of imperialism, but that it does not start from an allround conception of Imperialism as a definite stage in the capitalist evolution, as the classical Marxist studies have done.

Pilling therefore alleges that AE's work rests upon a fundamental methodological error. "By treating the exchange circuit as separate from the relations of production, and particularly their uneven development on a world scale, he is unable to grasp the real meaning of the category UE."<sup>1</sup>

This has rather serious repercussions because, if as Emmanuel asserts, the source of economic inequality resides not in the dominance of finance capital, but in mercantile imperialism, then he tends to arrive at the conclusion that, this inequality can be removed within the limits of the capitalist system. Thus unequal exchange can be overcome, while capitalist relations continue in the metropolis, if not in the periphery.

#### 4.2.2 Rejection of the Marxian Theory of Value

Another point of criticism deals with his theory of

---

1. Pilling (1973), p. 168.

value which Pilling alleges is "..... perhaps the most persistent and glaring of Emmanuel's many theoretical errors."<sup>2</sup> He further asserts that A.E. does not merely modify/criticise Karl Marx, but actually rejects the distinction between 'labour' and 'labour power'.

Marx had poured scorn upon the trinity formula of vulgar economics, which brought together land, labour and capital as factors of production and Emmanuel. "..... replaces Marx's law of value with a crude cost of production theory."<sup>3</sup>

Marx had aimed to show that the social relations of production determine the social relations of distribution and exchange. Emmanuel however states that, "..... it is the quantities and rewards of these factors that determine prices." Thus for Emmanuel, production is determined by distribution and Pilling reiterates that this obviously leads to the idea, that it is possible to 'reform' the relations of distribution or exchange while leaving the social relations of production intact.

Bettelheim also stresses this point when he alleges that Emmanuel argues as though there were not one law of value but two - the law of value applying to simple commodity mode of production and a theory of cost of

2. Pilling, *ibid*, p. 171.

3. Pilling, *ibid*, p. 171-72.

production applying to the capitalist mode of production. Bettelheim insists that this contradicts the theoretical structure within which the concept of prices of production was worked out<sup>4</sup>, since it leads to prices of production being seen not as a transformed form of value, but as a sum of a group of factors (a conception that Marx always opposed). Following from this, Emmanuel's definition of a 'factor of production' also comes in for severe criticism. Bettelheim feels that "..... the moment the definition is laid down the theory of value itself is challenged, since it then seems to be possible to think of value equally well as the sums of primary incomes received by the producers of the product,"<sup>5</sup> and points out that the prices of production thus defined are not the same as the Marxist concept described by the same term. Prices of production appear as the sum of these payments only in what Marx calls the "illusions created by competition."

---

4. In the Marxian scheme the prices of production reflect the transformed form of value, which has emerged because of the separation of the workers from their means of production. It is this separation, not found under simple commodity production that distinguishes the structure of capitalist productive forces and capitalist relations of production and causes the law of value to function as the law of the formation of p.o.p.

5. Bettelheim (1972), p. 277.

#### 4.2.3 Rejection of the international solidarity of the working classes

Another point that has oft been criticised is Emmanuel's use of the term 'exploitation' in relation to countries. Pilling points out that when Marx employed the term "exploitation" it was in a strict, scientific fashion: Capital represents a social power which is able to exploit labour on the basis of historically determined social relations of production.

Emmanuel's phrase 'exploitation of nation by nation' is devoid of this social and historical content. "It reveals a method that Marx castigated as vulgar, in that is concerned only with the outward appearance of the phenomena and not with an analysis of their internal contradictions."<sup>6</sup>

Agh (1980) also reiterates this criticism since he points out that though Marx says that capitalists are interested in the exploitation of their home country workers and their colonies, this does not mean that it is the same economic mechanism at both levels. 'Exploitation' is not a term used by Marx in the relationship of nations.

Amin (1974) & Bettelheim (1972) also feel that it is not possible to explain the notion of exploitation of one country by another. Each country constitutes a social formation with a specific structure, because of the

---

6. Pilling, op.cit. p. 169.

existence of classes with contradictory interests. It is this structure that determines the way in which each social formation fits into international production relations. Bettelheim reiterates that the relations of exploitation cannot be constituted at the "level of exchange"; they necessarily have to be rooted at the level of production, and since the concept of exploitation expresses a production relation, i.e. the production of a surplus value and appropriation by a certain social class, it necessarily relates to class relations and therefore exploitation between classes cannot be replaced by one between countries.

Bettelheim goes further to state that "..... a mere transfer of surplus value from capitalists of poor countries, to capitalists of rich countries cannot be described as exploitation ..... as only the working people can be exploited, but not other exploiters."<sup>7</sup> This point has been vigorously criticised by Dandekar (1979) who says that there is no reason why people who are exploiters must themselves have ceased to be exploited.

Bettelheim, nevertheless confesses that "..... refusing to employ the concept of exploitation to describe the effects of international exchange conditions upon the countries with underdeveloped productive forces does not in the least mean denying the obvious fact (though of a

---

7. Bettelheim, p. 302.

different order) that if the exchange between the rich and poor were more favourable to the latter, then their standard of living would improve."<sup>8</sup>

But recognising this fact, Bettelheim feels, is not the same thing as alleging that there is exploitation of the workers of the poor countries by the proletariat of the rich countries (as Emmanuel implies and Dandekar brings out explicitly). This upsets the basic Marxist notion of international solidarity of the working classes and conceals the solidarity between the exploiting classes of the different nations.

In this context Clunies Ross (1976) supports Emmanuel, since he believes that the international working class or the capitalist class as a political entity is still something of a fiction.

With regard to Emmanuel's reference to 'labour aristocracy' Bettelheim says that it is only an attempt by capitalists of MDC's to corrupt their labour, by relatively reducing the rate of exploitation, but these labourers cannot, therefore, be called exploiters of LDC labour, for they are themselves subject to intensive exploitation - more so than the labour of LDC's. The fact that the workers may become 'bourgeois' belongs to the realm of 'ideological

---

8. Bettelheim, *ibid*, p. 305.



relations' not to production relations.<sup>9</sup>

4.3 THE DISTINCTION BETWEEN THE TWO CATEGORIES OF U.E. IS NOT VALID

The point made above in 4.2.2 is further elaborated by Bettelheim when he points out that for Marx, the organic composition of capital (OCC) is not a simple arithmetic ratio, but in value terms represents the technical composition in a particular conjunction of production relations and forces and therefore inequality of OCC, like inequality of wages is an effect of the inequality of the development forces. This fundamental phenomenon, Bettelheim alleges, is not brought out in Emmanuel's model, where the inequality of development is reduced to the inequality of wage levels. This obscures the importance, for U.E. itself, of the lower OCC in the economically weaker countries and leads Emmanuel to reject the notion of U.E. in the broad sense.

Dandekar (1979) puts another construction upon Emmanuel's distinction between U.E. in the broad sense and U.E. in the narrow sense. In the former, it is only the capitalists of the MDC who appropriate the surplus value created by the LDC labour, besides, of course, appropriating the surplus value created by the labour in their own country.

---

9. Bettelheim in fact insists that in general the MDC workers are more exploited than LDC workers, since the more the production forces are developed the more the proletariat is exploited - i.e. the higher is the proportion of S to V.

In the letter, however, it is not only the capitalists who appropriate the surplus value created by the labour of LDCs, but also the labour of MDCs. Thus capital and labour of the rich country jointly appropriate, through the mechanism of free exchange of commodities, a part of the surplus value created in LDC's, and this is what Emmanuel recognised as U.E. He believed it to be exclusive to international trade relations and presumed that this does not happen within a country (unlike U.E. in broad sense) and Dandekar alleges that in this Emmanuel, is sadly mistaken. He believes that wage differences also exist between sectors of a national economy. He concludes that Emmanuel is willing to expose the myth of the international solidarity of the working classes, but is unwilling to admit exploitative relations between sectors through unequal exchange, because that would undermine/alter the entire basis of Marx's theory of exploitation.<sup>10</sup>

#### 4.4 WAGES DO NOT CONSTITUTE THE INDEPENDENT VARIABLE

Emmanuel treats wages as the independent variable and this has come in for severe criticism from Bettelheim, Pilling, Evens, Mandel, Amin, Best, Frank etc.

---

10. Equalisation of the rate of surplus value in a given economy is essential to support Marx's view of polarisation of society into two classes - and this would only occur when different sorts of labour are reduced to homogeneous abstract labour in proportion to their wage rates.

Bettelheim points out that in Emmanuel's model, wages are subject to determination on the ideological, historical, political and economic level and therefore "..... the historical element included in the price of labour power does not refer to an absolute absence of determination of wages, enabling the latter to be treated as an independent variable, but refers only to a relative absence of determination."<sup>11</sup> Wages are thus entirely integrated in the complex structure of a concrete social formation and are in no way 'independent' of this structure. Thus low wages in LDC's can be related to the low level of development of the productive forces and to the production forces that have hindered the growth of these forces.

"It is the nature and the specific combination of the productive forces and production relations in the poor countries, under the aegis of worldwide capitalist relations, that form the objective basis of the poverty of certain countries, the dominated countries, and explain both their low wages and the U.E. that may ..... result from this. To achieve a lasting escape from U.E., there is no other means than transforming this objective basis and thus the removal of those production forces that hinder the development of the productive forces."<sup>12</sup>

---

11. Bettelheim - *ibid*, p. 288.

12. Bettelheim - *ibid*, p. 288-89.

Pilling on the other hand points out that Emmanuel in order to establish that wages are the independent variable, lays great stress upon a quotation from Marx — "Nevertheless, in a given country, at a given period, the average quantity of these means of subsistence necessary for the labourer is practically known." (Capital 1:171).

The key point here is that the value and hence price of labour is determined not by the quantities of the means of subsistence, but by the value. The quantity is of course known at any given time in a society and, can therefore be treated as a constant magnitude, what changes is the value of this quantity - the socially necessary labour time required <sup>to</sup> produce the means of subsistence e.g. if food is the only item of subsistence, its quantity (by weight, calorific content) incorporated in wages can be measured, but this is quite independent of its value, which depends on the productivity of labour and changes in it.

This distinction between the 'quantity' of means of subsistence and the 'value' of wages is crucial, for underlying it is the more fundamental distinction between 'wealth' (the total of use values) and value (a social relation peculiar to commodity production). This distinction, drawn by Marx, points to the fact that as the productive forces grow, they tend to come into sharp conflict with the social relations of production, and once this is recognised, wages cannot possibly be called the

independent variable.

In fact, Marx, in comparing wages in a rich and poor nation, respectively does much to discredit Emmanuel's thesis. "..... it will be found that the daily wage in the first higher than in the second, while the relative price of labour (power) as compared with the value of the product, stands higher in the second than in the first."<sup>13</sup>

Evans while reiterating that the choice of wages as an independent variable is a misreading of Marx, goes on to elaborate a different point. Emmanuel assumes that the relative prices play no role in the determination of the composition of the bundle of commodities consumed; Evans shows that when the U.E. model thus assumes a fixed technical coefficient of production and consumption (i.e. absence of price substitution in production and consumption), it is only by accident, that there will be full employment in either economy under autarky.

With trade and equalisation of profit rates, there will be full employment in both economies, only in the unlikely event that the international rate of profit is equal to the rate of growth of the workforce in both the economies. Evans alleges that Emmanuel ignores this aspect of the analysis.

Mendel, Brewer and others question the causal

---

13. Marx: Capital (1:560)  
Emmanuel Appendix I, p. 302.

relationship between wages and development. Mandel believes that it is the slower rhythm of accumulation of productive capital in LDC that explains the underemployment and consequently the low wages. Amin however, alleges that the low wages in the periphery are due to the policies of primitive accumulation followed by the capital that dominates the periphery and Mandel agrees with him in attributing U.E. to the different social structures of the LDC, the combination of pre-capitalist, semi-capitalist and capitalist relations of production - what Amin aptly calls 'peripheral capitalism' as against 'central capitalism'.

In this context Samuelson's allegation is that U.E. is tautologically a restatement of the fact of assumed wage differentials.

But, most of the critics - Bettelheim, Best, Amin, & Mandel, etc. are of the view that it is world domination by the capitalist mode of production that has favoured the maintenance/development in the dominated countries, of production relations that have blocked the development of their productive forces.

The basic point that emerges here is that U.E. cannot be explained by mere rates of reward of factors, because they have an objective basis, that supports and reproduces them. Emmanuel's model, which treats wages as the independent variable suppresses this fact, and therefore on the practical plane, this gives rise to the impression,

Bettleheim says, that to correct the inequality of exchange, it would be sufficient to change the wage levels, (which of course is not true as Emmanuel admits). In reality, however, these objective conditions continue to reproduce themselves on an expanding scale until they are smashed.

Frank expresses this very succinctly when he states that "..... once U.E. begins, its consequences are cumulative, it transfers investible surplus from the poor who cannot invest it to the rich who do so. This widens the wide gap and increases U.E. still more and further affects the structure and modes of production in the MDC & LDC."<sup>14</sup>

4.5 LOW WAGES DO NOT ENTIRELY EXPLAIN U.E. -  
U.E. THESIS IGNORES PRODUCTIVITY OF LABOUR  
UNDER DIFFERENT TECHNICAL CONDITIONS

While the critics lambasted Emmanuel for treating wages as the independent variable, they also questioned the validity of explaining U.E. entirely by unequal rates of reward of the factors of production.

Szentes, Amin, Brewer, Clunies Ross and others incorporate the role of MNC's, the low level of technology, the cost of access to natural resources, the technological dependence, among others, as being crucial to explain the poverty of poor nations.

---

14. Frank (1978), p. 106.



Some critics, notably Barratt-Brown, Clunies Ross insist that the U.E. thesis ignores the differences in productivity of labour under different technical conditions. This point is illustrated by Barratt-Brown with an extension of Emmanuel's example showing differences in wage rates between countries.

He demonstrates that differences in productivity can be greater than the 30:1 ratio apparent for wages between MDC's and LDC's.

Table 4: Wages and productivity in Manufacturing Industry for certain countries (1950-1955)

Country	Wages per hour		Net output per head	
	in \$	as a % of USA	in \$	as a % of USA
	1	2	3	4
U.S.A.	1.70	100	5730	100
U.K.	0.454	27	2260	40
W. Germany	0.331	19	1610	28
L. America	0.25 to 0.35	15-20	800-900	12-14
Black Africa	0.2 to .25	12-15	600-800	10-12
Philippines	0.3	17	400	7
India	0.1	6	220	4
Pakistan	0.075	4	90	1.5

Sources: Columns 1 & 2 - Emmanuel 1972, p.47  
Columns 3 & 4 - MBB.(1974), p. 232.

Note: Wages are averages for 1950-55; net output is for 1950 at 1955 prices. Wages in India and Africa include salaries employees earnings.



Here the low level of wages in LDCs is evident, but Bernatt Brown points out, that they are associated with even lower levels of productivity.

Emmanuel is thereupon criticised for saying that "..... the inequality of wages, as such, all other things being equal, is alone the cause of the inequality of exchange,"<sup>15</sup> after having made it clear that productivity is not one of the 'other things' that are equal.

Clunies Ross feels that Emmanuel would be more credible if he admitted some relationship between wage rates and average productivity of labour, since, he has anyway to concede, by implication, that average productivity of labour will set an upper limit to what can be paid in wages, when he says that wage rates are determined by institutional factors.

Emmanuel, in Appendix V of his book however clarifies, that to set up the productivity of labour as the determining element in the value of labour power, is an idea that is diametrically opposed to the Marxist conception of value. Indeed as Marx had pointed out it would be absurd to imagine that wages would be suddenly doubled if the average worker's productivity doubled for some reason.

---

15. Emmanuel (1972), p. 61.

4.6 THE ASSUMPTION OF INTERNATIONAL EQUALISATION  
OF RATE OF PROFIT CANNOT BE SUSTAINED

Emmanuel starts from the fundamental assumption that there is international mobility of capital leading to a tendency towards equalisation of the rate of profit on the world scale. Agh (1980), Mandel (1978) and Bernal (1980) however contend that the hypothesis of international equalisation of rate of profit cannot be sustained either theoretically or empirically.

Theoretically, it presupposes a perfect international mobility of capital - the equalisation of all economic, social and political conditions propitious to the development of modern capitalism on a world scale - such equalisation however, is completely contradicted by the law of uneven development that dominates capitalist development and simply does not exist. The heterogeneity of world capitalism, which is reflected in the inner heterogeneity of modes of production within a dependent country, could be the only realistic starting point in the analysis of underdevelopment. The unequal conditions of development of the capitalist mode of production, determines the unequal sizes of the internal markets and uneven rhythms of accumulation of capital. Thus it is impermissible to describe the international equalisation process, just like within a capitalist economy.

Mandel then points out that the contradictions that arise from Emmanuel's hypothesis, are explicit in his

numerical examples, where, with some exceptions (p.52-55). Emmanuel assumes that the OCC is higher in the colonies than in the metropolis. In fact, in certain examples (p. 74-75, 81) the OCC is five times higher in the colonies than in the centre. He alleges that Emmanuel does not even mention that a far smaller mass of capital a much lower OCC and lower rate of surplus value exists in the LDC (as is normally supposed in Marx). This however is not crucial for the conclusions as can be seen by constructing an example with OCC being lower in colonies - in fact the U.E. merely deepens. A related point of criticism with reference to Emmanuel's contention that there was no net export of capital from MDCs given the large scale flow of income from the colonies to metropolis<sup>16</sup> is emphasized by Mandel and Nisbet (1970) when they point out that Emmanuel commits an analytical mistake when/<sup>he</sup>combines long term capital flows with short term revenue flows.

Dandekar (1979) seems to be of the opinion that, the assumption of mobility of capital is not necessary for the equalisation of the rate of profit to take place. He contends that, if it is granted that real wages tend to rise with the rise in labour productivity then the difference in wage itself would tend to cause the rate of profit between two economies to equalise, even without

---

16. Amin (1974) estimates, the hidden transfers of value from Periphery to Centre due to the U.E. mechanism to have been \$ 22 billion (around 1966) which is twice the amount of the aid public and private received by the periphery.

mobility of capital.

This point however appears to be not so clear-cut as Dandekar presumes - it hinges on the absolute level of the surplus value. With increased productivity, if the entire increase in value-added is appropriated by labour (*ceteris paribus*) then the above statement certainly holds, as it does when the absolute quantum of surplus actually declines. In the case however, where the rate of growth of surplus and wages are the same as also when the rate of growth of wages is greater than the rate of growth in surplus value, this does not necessarily hold.

Samuelson (1977) alleges that Emmanuel constructs his model on the basis of an extreme independence between the rates of profit and surplus value which does not exist. In Emmanuel's examples in each country the rate of surplus value remains unchanged in the pre-trade and post-trade situation. Samuelson however contends that it is not permissible to pool after trade the unchanged pretrade surplus, since specialisation forced by trade must alter these magnitudes. He therefore shows, by changing the surplus value (after trade) in such a way, as to equalise the rate of profit and the rate of surplus value, that values are equal to prices of production and there is therefore no unequal exchange.

Emmanuel has countered criticisms of this kind,<sup>17</sup>

---

17. Emmanuel (1972). Appendix V, p.(393).

pointing out that if all that is involved in the process of transformation is a mere alteration of form, without any alteration of content, then, the one thing that must remain unchanged is the rate of exploitation. Thus it is absolutely impermissible for Samuelson to change the rates of exploitation when profit rates are equalised. Indeed, the rates of exploitation are institutional features and one cannot visualise them changing, consequent upon changes in the rate of profit.

#### 4.7 UNEQUAL EXCHANGE ASSUMES IDENTICAL TECHNIQUES OF PRODUCTION

Evans (1976) points out that in Emmanuel's thesis one gets the impression that U.E. arises in a world of identical techniques of production (which in the Ricardian model would lead to no differences in pre-trade ratios and no possibilities of gainfull trade).

Evans uses Saigal's illustration of the Sraffa trade model to show the possibility of surplus extraction via U.E. He concludes that in order to show U.E. under these assumptions, one would need to violate the crucial assumptions of free trade and tendency towards equalisation of profit rate of the Emmanuel model and therefore this could not be the case that Emmanuel refers to.

There is not much to be gained through this exercise, since Evans himself admits, that Emmanuel in a more recent

exposition<sup>18</sup> clarifies that this interpretation of his earlier writing is incorrect. He explicitly assumes different techniques of production in each country and specialised trade from the start and shows U.E. arising from pre to post equalisation of the rate of profit.

4.8 TRADE AND U.E. WILL NOT TAKE PLACE  
IN EMMANUEL'S EXAMPLES

Sau (1978) criticises Emmanuel on the grounds that the construction of the model is totally illogical. In fact he claims that there would be no trade at all in his model, let alone unequal exchange. He substantiates this with an illustration. He takes 2 countries and works out the average profit rate and prices of production as following -

Cy.	C	V	S	(C+V+S)	S/V	OCG	$\frac{\sum S}{\sum (C+V)}$	Price
1	100	50	50	200	1	2/3	66.66%	250
2	100	50	100	300	3	2/3		250

In this example the rate of profit in country 1 under autarky is  $50/(100 + 50) = 33.33\%$  and in country 2 it is  $150/(100 + 50) = 100\%$ .

---

18. Emmanuel "U.E. Revisited".  
This work was not available to us and we therefore rely on secondary sources Evans (1976) and Sangha (1982).

As trade takes place the profit rate is equalised at 66.66%. Why should the capitalists of country 2, voluntarily engage in trade when they know that the profit rate will decline?

This criticism seems to confuse the effects of trade and investment. When capitalists of the MDCs find that higher rates of profit prevail in LDC's, they invest, i.e. capital flows into LDCs and leads to a fall in the rate of profit. In this situation the capitalists of LDCs seem to have no say in the matter since under the assumptions of free trade and mobility of capital, they can hardly prevent the capitalists of MDC's from taking advantage of the higher profit rates.

Samuelson (1977) also asserts that in Emmanuel's tables "..... both 'before' and 'after' trade, there is no possibility of any trade. In every case the domestic price ratios  $P_2/P_1$  and  $P_3/P_1$  are identical between countries both before and after trade."<sup>19</sup> There can therefore be no trade. In fact calculation of exchange rate, under autarky", is in itself meaningless since there was not X of commodity 1, against Y of commodity 2 but only 0 of each, and "the terms of trade ..... 0/0 = gibberish."<sup>20</sup>

It is profoundly wrong, Samuelson argues, to leave

---

19. Samuelson (1977), p. 104.

20. Samuelson (1977), p. 103.



the after-trade industry totals what they were before trade, since the whole effect of trade is to cause specialisation and production shifts.

This argument can be countered when we realise that the central focus in Emmanuel's thesis is the relationship between institutional and market forces operating through time, on a given pattern of international specialisation, without reference to the trade theoretic problems of the opening of trade as emphasized by Brewer and Evans.

#### 4.9 POLICY IMPLICATIONS NOT VALID

If low wages in the poor countries are the cause of the problem, and they are institutionally determined, then the policy implication would seem to be to increase wages by a government decree. This however, is ruled out by Emmanuel without offering any explanation as to why it is impossible and this has been criticised by Bettelheim, Ross and others.

Emmanuel instead advocates an export tax on the primary commodities commonly exported by poor countries.

Clunies Ross (1976) criticises Emmanuel on the grounds that "..... the analysis is either simply wrong or so oddly expressed as to deceive the incautions reader (and apparently the author too) into thinking that the case is far stronger than in fact it is."<sup>21</sup> It is pointed out

---

21. Ross (1976), p. 52.



that Emmanuel treats a situation in which there is -

- (a) infinitely elastic supply of exports
- (b) or zero elasticity of demand for each of the particular country's exports, obtains as the normal one, even in the long run.

Clunies Ross points out that infinitely elastic supply is not likely to hold in case of agricultural and mining output and zero elastic demand for the export of a particular country is far from being generally the case (if ever approximated!). "Clearly, Emmanuel's normal case is highly abnormal, indeed a limiting case ....."<sup>22</sup>

Clunies Ross shows how Emmanuel further considers the effect of the export tax on Terms of trade and Balance of trade in 4 possible cases (p. 232).

- (1) Constant costs - in-elastic demand
- (2) Constant costs - elastic demand
- (3) Increasing costs - inelastic demand
- (4) Increasing costs - elastic demand.

The NBTOT are held to improve in response to an export tax in all 4 cases and apparently to the full extent of the tax in case 1 and 3. Clunies Ross alleges that the assertion of full proportionate improvement in TOT in case 3 is incorrect unless 'inelastic demand' is held to mean demand of zero elasticity. Thus presumably, 'elastic demand'

---

22. Ross (1976), p. 52.

should mean demand of any elasticity greater than zero, which means that cases 1 and 3 become unreal limiting case, while case 2, with constant costs and therefore infinitely elastic supply can hardly be even approximately realistic, except perhaps for some manufactures and services. Case 4, alone then - where partial improvement in NBTOT and a tendency to worsen in Trade balance - is then the only one with any claim to realism for primary products. But here too, if elastic demand is taken to mean elasticity greater than zero, Clunies Ross alleges that Emmanuel is again in error, since reduced receipts for exports, (which is what is meant by worsening of trade balance) are not entailed by a demand elasticity greater than zero, but only by a demand elasticity greater than 1.

Emmanuel all through, assumes implicitly a fixed exchange rate and deals only with NBTOT. He ignores the concept of YTOT explicitly when he says "..... that the terms of trade have nothing to do with the quantities exported or imported, but solely with unit prices",<sup>23</sup> and this is a major drawback. At the same time strangely enough he does refer to total export earnings and appears to establish a strong presumption that they will rise, even when he discusses an export tax imposed by a single country and not by exporting countries as a body.

---

23. Emmanuel (1972), p. 231.

What Emmanuel is really concerned with, is double factorial terms of trade i.e. the rate at which the product of one unit of labour in the MDC exchanges for in the LDC. In this context Ronald Findlay (1981) constructs an example where the DFTOT decline i.e. there is U.E. while the NBTOT actually improve. Initially the real wage, the rate of profit and relative capital intensities are the same in both the countries i.e. the DFTOT are unity - the situation of equal exchange. The terms of trade at this point are given by say 1 coffee = 1/2 steel.

Now, if the productivity of labour in the steel exporting country increases and the workers there are able to get a rise in real wages, while wages in the other country remain the same, then the terms of trade become, say, 1 coffee = 5/9 steel. The NBTOT are now better than they were before the increase in wages, but the DFTOT have turned against the coffee exporting-lower wage country. This Emmanuel considers to be U.E. Findlay finds it strange that U.E. is consistent with a substantial improvement in NBTOT and a rise in the absolute level of the real income. It seems strange he says, "..... for someone to object to an increase in productivity ..... on the grounds that it causes the DFTOT to diverge from unit."<sup>24</sup>

---

24. Findlay (1981), p. 436.

Evans attacks the advocacy of autarkic development and points out that with the assumption of mobility of capital it is possible for capital to abandon any one nation, where its workers strike a wage bargain too high in real terms to yield the international rate of profit, and therefore any assessment of possible improvements in the gains from trade in a strategy of more self-reliant (autarkic) development, depends on the capacity of the dependent country to organise resistance against the competitive power of internationally mobile capital. Evans therefore asserts that the solution to uneven distribution of gains from trade must be posed in terms of international co-operation of labour, rather than programmes of autarkic development.

#### 4.10 MODIFICATIONS SUGGESTED BY CRITICS

In spite of the criticisms levelled against the U.E. thesis almost all the critics admit that U.E. does exist.

The Marxists contend that the worsening of the TOT cannot be revealed by analysing exchange relations. It is at the level of production relations that the mechanism of exploitation of Periphery by the Centre is to be found and the modifications suggested by these critics reflect the need to incorporate this.

Amin insists upon a study of the place held by monopolies in world trade, as against econometric studies of elasticities, while Agh & Mandel emphasise the existence

of U.E. under uneven conditions of development.

Other attempts merely seek to modify the tool used to expose the phenomenon of U.E. e.g. Saigal, Oscar Brown<sup>25</sup> and Dandekar use the Sraffa system instead of the Marxian system. Seu (1980) presents an exercise in algebra when he shows U.E. under balanced trade. This has called forth criticisms from Bose (1980), Dandekar (1980) but none of them seem to agree with the methodology adopted by the other.

The Unequal Exchange debate is not confined to the capitalist world. Montias (1967) uses the U.E. concept in his discussion of the relations of Communist Romania with the COMECON. This debate thus continues with supporters and dissenters continuing to marshal evidences in support of their own hypotheses.

---

25. The original works of both these authors were not available to us, we therefore rely upon secondary sources - Seu (1976), Amin (1977).

### CONCLUSION

The earlier explanations for the secular decline in the terms of trade of LDCs - viz. Prebisch's thesis - emphasise the primary product - exporting - status of LDCs and explain the phenomenon with the help of income elasticities of demand. Emmanuel's hypothesis, however, exposes a more fundamental problem - that of an unequal exchange of labour values. In order to show exploitation in exchange, one has to compare the prices that are actually paid, to some reference set of "correct" prices and this is exactly what Emmanuel does in his unequal exchange hypothesis.

Evidently, both these hypothesis have different policy implications: while Prebisch and others advocate industrialisation and protectionism, Emmanuel denies that trade can ever function as an "engine of growth" in the present socio economic conditions in the LDCs and insists upon institutional changes within them.

Although, the latter hypothesis as presented, has come in for a great deal of criticism on account of the assumptions, the methodology and the extreme policy measures advocated, most critics are in agreement with the basic postulate viz. that unequal exchange does exist.

There is not much empirical work testing the U.E. thesis. However the empirical studies of Diwan (1973),

Diwan and Marwah (1976), Amin (1977) and Marelli (1983) show that there is a transfer of surplus value from poor countries to richer countries, bearing out Emmanuel's hypothesis. Also Dandekar (1979) shows that such transfers can take place between the organised and unorganised sectors within an economy, though he does not use actual data. Much empirical work needs to be done to substantiate the U.E. hypothesis.

It would also be of interest to use the Emmanuel framework to empirically investigate the transfers of surplus value between states and also between the Rural and Urban sectors within a nation.

APPENDIX IAPPROXIMATIONS TO NET BARTER TERMS OF TRADE BETWEEN  
PRIMARY PRODUCTS AND MANUFACTURES - FROM 1871 TO 1938

Year	Pre- bisch (1)	League (2)	Lewis (3)	U.N. (4)	Year	Pre- bisch (1)	League (2)	Lewis (3)	U.N. (4)
1871			103.0		1901			96.1	85
1872			105.2		1902			96.1	88
1873			106.7		1903	101	96	96.0	90
1874			105.5		1904			94.1	90
1875			103.2		1905			92.9	93
1876			103.2		1906			97.1	90
1877			105.9		1907			98.3	88
1878	119	107	102.8		1908	102	97	93.5	93
1879			99.8		1909			95.0	96
1880			100.0		1910			96.0	100
1881			101.6		1911			98.2	103
1882			103.6		1912	101	100	100.3	100
1883	122	106	100.5		1913			100.0	100
1884			97.8						
1885			96.0						
1886			92.6		1921	71	69	70.5	65
1887			94.5		1922	76	75	75.9	76
1888	115	100	95.9		1923	78	83	90.6	87
1889			97.6		1924	82	88	92.4	88
1890			95.6		1925	84	90	93.7	98



## APPENDIX I (contd.)

Year	Pre- bisch (1)	League (2)	Lewis (3)	U.N. (4)	Year	Pre- bisch (1)	League (2)	Lewis (3)	U.N. (4)		
1891	107	97	95.5		1926	82	88	91.2	91		
1892			93.4		1927	82	91	93.0	93		
1893			95.5		1928	84	88	89.2	93		
1894			92.8		1929	84	86	88.9	91		
1895			89.2		1930	76	77	78.6	72		
1896			90.1		1931	69	68	70.5	64		
1897			92.3		1932	69	65	65.1	60		
1898			104	99	93.5		1933	67	65	66.5	61
1899					94.8		1934	69	70	72.1	68
1900					98.0	80.0	1935	70	72	73.2	70
					1936	72	74	77.1	76		
					1937	76	79	81.4	82		
					1938	70	73	74.7	68		

PRICE OR UNIT VALUE OF PRIMARY PRODUCTS ÷ PRICE OR UNIT VALUE OF  
MANUFACTURES  
1913 = 100.

SOURCES:

Column (1) : U.N., Economic and Social Council, Post War Price Relations in Trade between underdeveloped and Industrialised Countries (New York, 1949) (mimeo) later published as Relative Price of Exports and Imports of Underdeveloped Countries United Nations (1949).

**APPENDIX I (contd.)**

- Column (2) : As for Column (1) Based on League of Nations, Industrialisation and Foreign Trade (Geneva, 1945).**
- Column (3) : W.A. Lewis, "World production, prices and Trade 1870-1960, Manchester School of Economic and Social Studies (1952), Vol. 20, pp.105-38.**
- Column (4) : United Nations, Statistical Yearbook 1969.**

APPENDIX IIINDIA'S TERMS OF TRADE

The earliest case study of India's barter terms of trade was undertaken by Morgan (1960) in order to empirically test the hypothesis that the long run TOT are biased against LDCs. Morgan calculated the TOT for 1861-1963, and noted the general impression of a rise-fall-rise, and violent instability throughout.

A more detailed analysis comes from Appleyard (1968) who covers the period 1903-04 - 1952-53. His major conclusion was that "..... over the long run India's TOT did not deteriorate to any marked extent, although in the later years it is rather inconclusive.<sup>1</sup>

Another conclusion of this study contrary to the frequently voiced expectation regarding primary producing countries, was that India's TOT did not deteriorate during the depression period (i.e. 30's) nor did the periods of unusual prices increases (i.e. the two wartime periods) necessarily improve them. The author conjectures that this may be so, because India did not fit the typical primary producing category since primary imports and manufactures exports were often important.

A study by Bhatia (1968) points out the NBTOT do

---

1. Appleyard (1968), p.

not deteriorate, except during the war period and depression.

Chishti's (1974) review of the period 1930-68 however showed that the Indian experience was exactly what was expected of primary product exporters, during short periods. Especially during the decade of the 30's, these countries experienced more adverse movements in their TOT than those exporting manufactures; and also, during the boom period India enjoyed better TOT than the exporters of manufactures. India's TOT, as she shows, improved steadily in the late 40's and reached a peak in the Korean War boom of 1950-51.

Regarding the long term trend in India's TOT she says "..... it has not been possible to come to any definite conclusions ..... yet the available index numbers show that we can infer that there is a slight upward movement in TOT." This is explained by the fact that India is emerging slowly as an exporter of a large number of sophisticated manufactured items.

We present India's TOT from 1861 to 1968 in Tables 5 and 6.

## APPENDIX II (contd.)

**Table 5 : INDIA'S TERMS OF TRADE - (1861-1902)**

1920-21 = 100.			
Year		Year	
1	2	1	2
1861	92.6	1882	111.8
1862	92.6	1883	112.0
1863	82.4	1884	123.0
1864	78.0	1885	121.3
1865	80.0	1886	116.2
1866	87.2	1887	113.2
1867	82.2	1888	106.5
1868	87.8	1889	114.3
1869	111.8	1890	114.3
1870	110.5	1891	122.5
1871	106.0	1892	131.0
1872	111.0	1893	126.0
1873	100.0	1894	181.0
1874	108.0	1895	127.6
1875	105.5	1896	124.6
1876	99.0	1897	144.2
1877	125.0	1898	127.5
1878	135.7	1899	115.0
1879	135.0	1900	129.1
1880	125.0	1901	120.8
1881	115.0	1902	181.5

Source: Bhatia (1939), p.417-18.

1873 = 100.

## APPENDIX II (contd.)

Table 6: INDIA'S TERMS OF TRADE - 1903-04 - 1967-68

Year	Bhatia	DENNIS APLEYARD		S. CHISHTI
		LASPEYRES INDEX OF TOT	PAASCHE INDEX OF TOT	
1	2	3	4	5
1903-04	117.0	104.1	113.2	
1904-05	111.8	99.8	110.5	
1905-06	120.8	106.9	120.0	
1906-07	132.4	112.6	126.5	
1907-08	125.0	105.8	114.7	
1908-09	142.4	105.1	108.5	
1909-10	134.3	107.7	115.3	
1910-11	116.5	113.0	121.6	
1911-12	120.0	114.0	127.2	
1912-13	124.0	112.9	132.0	
1913-14	131.0	115.5	128.7	
1914-15	140.0	106.3	115.2	
1915-16	106.8	98.2	112.0	
1916-17	70.0	85.6	101.1	
1917-18	64.5	72.4	88.1	
1918-19	69.2	74.2	85.3	
1919-20	101.2	82.0	84.3	
1920-21	100.0	66.0	65.7	
1921-22	104.8	79.3	77.1	
1922-23	123.8	94.8	97.8	
1923-24	116.0	100.0	100.0	

## APPENDIX II (contd.)

1	2	3	4	5
1924-25	102.3	112.0	112.7	
1925-26	110.9	120.1	120.8	
1926-27	116.0	116.1	118.3	
1927-28	107.5	124.1	128.7	
1928-29	124.0	124.7	123.4	
1929-30	127.0	120.6	118.7	
1930-31	111.7	107.7	120.0	119.5
1931-32	93.8	98.9	104.7	97.6
1932-33	86.8	105.6	107.5	109.4
1933-34	92.2	104.6	103.5	106.3
1934-35	96.0	100.2	101.4	115.6
1935-36	105.0	108.3	109.5	118.8
1936-37	104.0	104.3	100.6	128.8
1937-38	92.3	96.7	93.3	122.7
1938-39	90.0	96.3	92.3	114.1
1939-40	97.0	108.0	101.5	132.6
1940-41		90.0	90.1	128.9
1941-42		84.5	91.6	114.6
1942-43		60.5	94.2	121.8
1943-44		70.0	95.9	153.5
1944-45		68.8	80.5	151.5
1945-46		45.3	84.7	143.0
1946-47		47.5	103.8	131.7
1947-48		56.6	122.0	162.0

## APPENDIX II (contd.)

1	2	3	4	5
1948-49		61.9	101.1	116.2
1949-50		72.0	104.4	122.0
1950-51		72.3	120.0	130.7
1951-52		81.3	146.3	146.6
1952-53		56.7	110.9	100.0
1953-54				108.7
1954-55				109.8
1955-56				103.4
1956-57				95.9
1957-58				96.9
1958-59				100.0
1959-60				101.1
1960-61				114.5
1961-62				111.2
1962-63				112.6
1963-64				108.2
1964-65				108.1
1965-66				108.7
1966-67				112.7
1967-68				124.2

Sources:

Column 1: Bhatia (1939), pp. 417-419. 1873 = 100.

Column 2: Appleyard (1968) - base year: 1923-24 = 100.

Column 3: Ohishti (1974) base year 1952-53 = 100.



APPENDIX IIITHE DIRECT CALCULATION OF PRICES OF PRODUCTION

Emmanuel points out that many Marxists agree that there is no reason why one cannot/should not calculate prices of production directly, without going through the value stages. The advantage of the method that begins with values is that it circumvents the danger of concealing the fact that profit originates as a deduction from total social labour. Calculation in price terms obscures the social relations of capitalist production and leads to the mistaken notion that capital is somehow 'productive'.

Emmanuel however points out that "this is an ethical idea and not an apprehension of reality. The reality is that neither profit nor wages are engendered by the process of circulation, but by that of production and that ..... these two magnitudes are inversely proportional to each other, which ..... gives rise to an inevitable antagonism between the classes ..... It is this that enables us to go from economic laws and categories to historical ones." He then proceeds to illustrate this without resorting to the 'transformation' quibble.

We present here the generalised form - A society possesses an indefinite number of commodities, A, B .... K ;

$A_a, A_b \dots A_k; B_a, B_b \dots B_k$  and so on down to  $K$ , are the quantities of  $A, B \dots K$  which enter into the capital invested in  $A, B \dots K$ , each of these terms being greater than or equal to zero.

$A^1_a, A^1_b \dots A^1_k$  are parts of  $A_a, A_b \dots A_k$ ;  $B^1_a, B^1_b \dots B^1_k$  are parts of  $B_a, B_b \dots B_k$  and so on down to  $K$ , and they enter into the material consumption or consumption by workers in branches  $A, B \dots K$ . - all these terms are again greater than or equal to zero.  $A$  is higher than or equal to the sum of  $A^1$ , and so on down to  $K$ .  $P_a, P_b \dots P_k$  are the unit prices of  $A, B \dots K$  and  $r$  is the rate of profit.

Accepting that one of the commodities is the money commodity, equal to the unit of value, or what amounts to the same thing, concerning ourselves with only the relative prices, that is the ratios  $A/B, A/C \dots A/K$  we need to know  $(K-1)$  ratios, plus the rate of profit  $r$ , which gives us  $K$  unknowns for  $K$  independent equations.

Capital Invested	$C + V$	Profit	P.o.p.
$A_a P_a + B_a P_b + \dots K_a P_k$	$(A^1_a P_a + B^1_a P_b + \dots K^1_a P_k)$	$(A_a P_a + B_a P_b + \dots K_a P_k) r = AP_a$	
$A_b P_a + B_b P_b + \dots K_b P_k$	$(A^1_b P_a + B^1_b P_b + \dots K^1_b P_k)$	$(A_b P_a + B_b P_b + \dots K_b P_k) r = BP_b$	
⋮	⋮	⋮	⋮
$A_k P_a + B_k P_b + \dots K_k P_k$	$(A^1_k P_a + B^1_k P_b + \dots K^1_k P_k)$	$(A_k P_a + B_k P_b + \dots K_k P_k) r = KP_k$	
$\Sigma 1$	$\Sigma 2$	$\Sigma 3 - \Sigma 2$	$\Sigma 3$

$$r = \frac{\Sigma 3 - \Sigma 2}{\Sigma 1}$$

This illustrates the point Emmanuel asserts that if we want to solve the problem of quantifying commodities, while basing ourselves exclusively on the conditions of production, the only magnitude we are obliged to rely upon is wages, as the first deduction that is made from social product, profit being merely a residue. If we lack this magnitude, i.e. if wages are not 'given' and do not constitute an independent variable, then the problem of defining value on an objectivist basis is insoluble, and no abstract equilibrium price of production can be found.

Emmanuel also points out that this solution is reminiscent of Piero Sraffa's, but maintains that there are considerable differences between the two solutions.

The main difference lies in the fact that in Emmanuel's model wage is the independent variable. It is expressed in terms of a single commodity, the money commodity. He calls it a semi-real wage, because its real counterpart, the definite assortment of goods consumed by the worker, is not and cannot be given ex ante, but is ultimately dependent on prices, which in turn depend on the organic composition of the industries producing the workers' consumer goods as compared with that of the other industries.

Sraffa, on the other hand Emmanuel alleges starts his analysis also taking wages as the independent variable, but he looks for an ultra-real wage representing either an

assortment of 'specified necessities' or an abstract, mathematical fraction of the net social product. Later however (in para 44 of Ch. 5) he admits that such a wage cannot be given from outside the system, and suggests that the rate of profit, "..... which is susceptible of being determined from outside the system of production, in particular by the level of the money rates of interest", should be treated as the independent variable, without offering any further explanation. Emmanuel therefore contends that this is a deadly blow dealt by Sraffa himself to his attempt at rehabilitating classical theory.

LIST OF ABBREVIATIONS

- AER : American Economic Review.  
CJE : Canadian Journal of Economics.  
ED&CC : Economic Development and Cultural Change.  
EJ : Economic Journal.  
EPW : Economic and Political Weekly.  
IEJ : Indian Economic Journal.  
ISSB : International Social Science Bulletin.  
JDS : Journal of Development Studies.  
JES : Journal of Economic Studies.  
MSESS : Manchester School of Economics and Social Studies.  
OEP : Oxford Economic Papers.  
QJE : Quarterly Journal of Economics.  
RES : Review of Economic Studies.

BIBLIOGRAPHY

1. Agh Attila - (1980). Labyrinth in the Mode of Production Controversy. Studies on Developing countries - No. 105 - Institute for World Economics of the Hungarian Academy of Sciences - Budapest.
2. Amin Samir - (1974). Accumulation on a World Scale - A critique of the theory of underdevelopment - Volume 1 - Monthly Review Press, New York and London.
3. Amin Samir (1976). Unequal Development. Monthly Review Press - New York & London.
4. Appleyard Denis R. (1968). Terms of Trade and Economic Development - A case study of India - AER, May 1968. Volume LVIII, pp. 188-99.
5. Baer Werner (1961-62). The Economics of Prebisch and ECLA - ED & CC, Vol. X, pp. 169-82.
6. Baldwin R.E. (1955) - Secular movement in the terms of Trade. AER, May 1955.
7. Balogh Thomas (1963). Unequal Partners, Vol. I, London - Basil Blackwell.
8. Barratt Brown Michael (1974). The Economics of Imperialism - Harmondsworth: Penguin.
9. Bernal, L. Richard: (1980). Emmanuel's 'Unequal Exchange' as a theory of Underdevelopment - Social and Economic Studies, Vol. 29(4), pp. 152-74.
10. Best Michael H. (1976). Uneven development and

- Dependent Market Economics, AER (May 1976), pp. 136-41.
11. Bettelheim Charles (1972). Appendix I & II in Emmanuel (1972).
  12. Bhagwati Jagdish (1958). Immiserising growth: a geometrical note. RES, June 1958.
  13. Bhatia B.M. (1968-69). Terms of Trade and Economic Development: A Case Study of India 1861-1939. IEJ, Vol. 16, pp. 414-33.
  14. Bose Arun (1979a). Concept of Unequal Exchange in International Trade: A note - EPW, July 21, pp. 1204-05.
  15. Bose Arun (1979b). Unequal Exchange - Rejoinder EPW, Oct. 27, pp. 1775-6.
  16. Brecher R.A. & Choudri E.U. (1982). Immiserising Investment from abroad: The Singer - Prebisch Thesis reconsidered. Q.J.E. 97(1), pp. 181-90.
  17. Brewer Anthony (1980). Marxist Theories of Imperialism - a critical survey - Routledge & Kegan Paul Ltd.
  18. Cairncross A. (1960). International Trade and Economic development, Kyklos, Vol. 13, No. 4.
  19. Ghishti Sumitra (1974). India's Terms of Trade - 1930-68. Orient Longman Ltd.
  20. Clunies Ross Anthony (1976). Emmanuel on Unequal Exchange: A Marxist contribution on Trade

- Relations between Rich and Poor - JES, Vol. 3,  
pp. 42-60.
21. Dandekar V.M. (1979). Peasant-Worker alliance - its basis in the Indian Economy. R.C. Dutt Lectures on Political Economy - Orient Longman Ltd.
  22. \_\_\_\_\_ (1980): Unequal exchange of errors. EPW, March 29, pp. 645-48.
  23. Diwan Romesh K. (1973). Trade between Unequal Partners, EPW, Annual No., pp. 213-20.
  24. Diwan R. & Karwah K. (1976): Transfers from Poor to Rich countries: an analysis of world exports, EPW, Annual No.
  25. Dorrance Graham: (1948-49). Income Terms of Trade - RES, pp. 50-56.
  26. Dos Santos Theotonio: (1970). The structure of Dependence. AER, 1970, pp. 231-36.
  27. Ellsworth P.T. (1956). The TOT between Primary producing and Industrial countries - Inter-American Economic Affairs.
  28. Emmanuel Arghiri: (1972). Unequal Exchange: A Study of the Imperialism of Trade: Monthly Review Press, N.Y. & London.
  29. Evans David (1975), Trade Production and Self-Reliance in Dudley Seers (ed) - Dependency Theory - A critical reassessment - Frances Pinter (Publishers) Ltd., London, 1981.



30. \_\_\_\_\_ (1976). Unequal Exchange and Economic Policies - EPW, Bombay, Vol. 11, Annual No., (pp. 143-58).
31. Findlay Ronald (1981). The Fundamental determinants of Terms of Trade in S. Grossman & E. Lundberg (ed) - World Economic Order: Past and Prospects, (pp. 425-40). St. Martin's Press, N.Y.
32. Flanders M. June (1964). Prebisch on Protectionism: An Evaluation. E.J., Vol. LXXIV No. 294, pp. 305-26.
33. Frank, A.G.: (1966). Development and Underdevelopment in Wilber (1973).
34. Frank A.G. (1978). Dependent Accumulation and Underdevelopment, London: Macmillan.
35. Furtado Celso (1972). The concept of Internal Dependence in the study of underdevelopment in Wilber (1973), pp. 118-23.
36. Graham F.D. (1923). The theory of International Values re-examined. Q.J.E., Vol. 37.
37. Heberler G. (1936). Theory of International Trade, pp. 198-208.
38. \_\_\_\_\_ (1959). International Trade and Economic Development in Theberge, (1968), pp. 103-112.
39. \_\_\_\_\_ (1961), Terms of Trade and Economic Development in Theberge (1968), pp. 323-43.
40. Hamilton G. & Lowinger T.C. (1977). The distribution

of gains from Trade and investment-Revisited:  
A comment, J.D.C., 13(4), pp. 428-32.

41. Hicks J.R. (1953). An Inaugural Lecture, OXP, V. No. 2, 1953.
42. Johnson, H.J. (1967). An analysis of Prebisch's views on TOT. Appendix A in 'Economic Policies towards LDC's' - London: George Allen & Unwin Ltd. The Brookings Instn.
43. Johnson H.J. (1959). Economic development and International Trade in R.E. Caves & H.J. Johnson (ed). Readings in International Economics, London: George Allen and Unwin Ltd. (1975).
44. Kindleberger C.P. (1956): The Terms of Trade - a European Case Study, New York.
45. Kindleberger C.P. (1958): The Terms of Trade and Economic development - Review of Economics & Statistics (Supplement).
46. Lewis W.A. (1952): World Production Prices and Trade: 1870-1960, MESS, Vol. XX.
47. \_\_\_\_\_ (1954): Economic development with Unlimited Supplies of Labour: MESS. May 54, Vol. 24(2).
48. Lipsey R.E. (1963). Price and Quantity trends in the foreign trade of U.S. National Bureau of Economic Research, Princeton.
49. Mandel E. (1978). Late Capitalism. Unwin Brothers

Ltd. The Graham Press.

50. Merelli E. (1983). Empirical estimates of Intersectoral and interregional transfer of surplus value - The Case of Italy - Journal of Regional Science, Feb. 1983, Vol. 23(1), pp.49-70.
51. Markussen & Melvin (1981). Trade, Factor prices and gains from trade with increasing returns to scale. CJE, Aug. 14(3).
52. Marx Karl ( ). Capital: Vol. 1, London 1970.
53. Meier G.M. (1958). International Trade and International Inequality. OEP, Vol. 10, pp. 277-89.
54. \_\_\_\_\_ (1968). The International Economics of Development: Theory & Policy. New York: Harper & Row.
55. Meier & Baldwin (1957). Economic Development: Theory, History & Policy, John Wiley: New York.
56. Melvin J. (1969). Increasing returns to scale as a determinant of trade. CJE, 3 (1969), pp.389-402.
57. Mishan E.J. (1955). The Long run Dollar Problem: A comment, OEP, Volume 11.
58. Montias J.M. (1967). Economic development in Communist Roumania, MIT Press, (Ch. 4).
59. Morgan Theodore (1959). The long run TOT between Agriculture and Manufacturing ED & CG, Vol. VIII(1), pp. 1-23.

60. Muller Ronald (1973). The Multinational Corporation and the underdevelopment of the Third World, in Wilber 1973, pp. 124-151.
61. Myint HLA (1954-55). The gains from International trade and the backward countries - RES, Vol. 22(2).
62. Myrdal G. (1957). Economic Theory & Underdeveloped Regions, London - Duckworth.
63. Nisbet Charles T. (1970). Transferring Wealth from Underdeveloped to Developing Countries via direct foreign investment: a Marxist claim reconsidered. SEJ, Vol. 37(1), pp. 93-96.
64. Nurkse R. (1959). Patterns of Trade and Development, First Wicksell Lecture - Stockholm.
65. Pilling G. (1973). Imperialism, Trade and Unequal Exchange: the work of Arghiri Emmanuel - Economy & Society, Vol. 2, pp. 164-85.
66. Prebisch Raul (1950). The Economic development of Latin America and its Principle problems UN E/CN 12/89/Rev.
67. \_\_\_\_\_ (1959). Commercial Policy in Underdeveloped countries - AER, May, XLIX, 2, pp. 251-73.
68. \_\_\_\_\_ (1963). Development problems of Peripheral countries and the Terms of Trade in Theberge, (1968), pp. 287-97.
69. \_\_\_\_\_ (1964). Towards an New Trade Policy for

development - Report by the Secretary General  
of the UNCTAD, UN, New York.

70. Ricardo David (1817). The Principles of Political Economy and Taxation, 3rd Edition, London 1821.
71. Robertson D.H. (1951). Terms of Trade. ISSB, Spring, pp. 28-32.
72. Samuelson P.A. (1977). Illogu of the Neo-Marxian doctrine of Unequal Exchange - in the collected scientific Papers of P.A. Samuelson, Vol. 4-(ed) Hiroaki Negatani and Kate Crowley (ed). The MIT Press.
73. Sangha K.S. (1982). Comparative advantage and Unequal Exchange. The Indian Journal of Economics, April, Vol. LXII, No. 247, pp. 507-519.
74. Sau Ranjit (1978). Unequal Exchange, Imperialism and Underdevelopment, Oxford Univ. Press.
75. \_\_\_\_\_ (1979). Concept of U.E. in International Trade - A reply, EPW, Sept. 8, pp. 1554-56.
76. \_\_\_\_\_ (1980a). Unequal Exchange - Reply II - EPW, Jan. 26, pp. 185-188.
77. \_\_\_\_\_ (1980b). Unequal Exchange and Bourgeois Politics of Working Class - A comment, EPW, March 15, pp. 574-76.
78. \_\_\_\_\_ (1980c). Unequal exchange of Errors - A Reply, EPW, May 17, pp. 899-900.
79. Schloss H.H. (1977), Declining Terms of Trade: Myth

- or Reality? *Economia Internazionale*, Vol.30(4), pp. 466-69.
80. Sheikh Anwar (1979). The laws of international exchange in Nell E.J. (ed), *Growth, Profits and Property: Essays in the Revival of Political Economy* - Cambridge Univ. Press, London, New York, 1980.
81. Singer H.W. (1949). The Distribution of Gains between Investing and Borrowing Countries. *AER*, May, Vol. 40, No. 2, pp. 473-85.
82. \_\_\_\_\_ (1975). The Distribution of Gains from Trade and Investment - Revisited. *JDC*, July 11(4), pp. 376-82.
83. Sodersten BO. (1964). A Study of Economic growth and International Trade. *Almqvist & Wicksell-Stockholm*, pp. 158-81.
84. Spraos J. (1980). A Statistical debate on the Net Barter Terms of Trade. *E.J.*, Vol. 90, pp.107.
85. Staehle H. (1951). Some notes on Terms of Trade, *ISSE*, Spring '51, pp. 33-36.
86. Stein Leslie (1979), Dependency theories and Underdevelopment, *JES*, Vol. 6(1), pp. 64-85.
87. Szentes Tamas: (1973). The Political Economy of Underdevelopment. *Akademiai Kiado, Budapest*.
88. \_\_\_\_\_ (1979). A brief survey on the theories of International Trade - Studies on developing

- countries - No. 102, Institute for World Economics  
of the Hungarian Academy of Sciences - Budapest.
89. Theberge J.D. (ed) (1968) - Economics of Trade and  
Development - New York.
90. Thirlwall A.P. (1972). Growth and Development. The  
Macmillan Press, Ltd.
91. Theburn J.T. (1977). Primary Commodity exports and  
Economic development: Theory, evidence and study  
of Malaysia.
92. United Nations, Dept. of Economic Affairs - (1949).  
Relative Prices of Exports and Imports of  
Underdeveloped countries, New York.
93. Viner Jacob (1937). Studies in the theory of  
International Trade, Harper & Brothers, N.Y.
94. \_\_\_\_\_ (1953). International Trade and Economic  
Development. Oxford Univ. Press, London.
95. Weisskopf Thomas E. (1977). Dependence as on  
Explanational of underdevelopment: a critique.  
Centre for Research of Economic Development -  
Univ. of Michigan, Feb. (Discussion Paper 66).
96. Wilber G.K. (ed) (1973) - The Political Economy of  
Development and Underdevelopment - Random House  
Inc., New York.
97. Wilson T., Sinha R.R. & Castree J.R. (1969). The  
Income Terms of Trade of Developed and Developing  
Countries. E.J. (Dec), Vol. 29.