CHAPTER 1

The Balance of Trade and Economic Growth

The problem of balance of payments disequilibrium has drawn relatively less attention in discussions on economic growth of underdeveloped countries. There is a common opinion that their current ability to earn foreign exchange is far below their requirements and that the resultant scarcity of foreign exchange is responsible for depressing their rates of growth. Few attempts, however, are made to demonstrate explicitly why it should be so. Most of the discussions are centred around the stabilisation of cyclical fluctuations in export prices and earnings, deterioration in terms of trade, and problems pertaining to policy. And the fundamental malady seems not to have been given due attention until recently.¹

We intend in this Chapter to discuss the nature of trade disequilibrium facing these countries. In this connection we shall discuss factors determining demand for their exports and their demand for imports and examine whether the disequilibrium is of the structural type, that is, is it due to some real maladjustment between the

¹ Some important studies are: GATT, Trends in International Trade (Geneva, 1958); UN, World Economic Survey, 1958 (New York, 1959); Hufkne, R., Patterns of Trade and Development (Stockholm, 1959); Seers, D., A Model of Comparative Rates of Growth in World Economy, EU LXXII, March, 1962, pp.45-78.
structure of production and consumption habits of the population or due to fiscal and monetary policies of the government. This is followed up by a brief discussion of the type of restrictions necessary to correct the deficit in the balance of trade.

Let us assume, for the sake of simplicity, that there are only two countries, a developed or industrial country (Country A) and an underdeveloped or non-industrial country (Country B) exporting manufactured commodities and primary commodities respectively. The problem of trade among developed and non-industrial countries is thus ignored throughout the discussion. Secondly, it is assumed that whatever increase in productivity takes place in either country is compensated by higher payments to factors of production. Since the productivity and money income are assumed to be rising at the same rate, any change in the balance of trade will be due to real or structural and not price factors. Thirdly, we assume that imports are a direct function of the aggregate income of a country. This may be regarded as a highly simplified and objectionable assumption. This is not denied and we shall add necessary qualifications in the course of the following discussion.

Given these assumptions, the rate of change of a country's demand will be given by its rate of growth multiplied by the income elasticity to import from other
country. The rate of change of trade balance for country B then may be written as

$$RT_B = E_A \sigma_A - E_B \sigma_B$$

where $\sigma$ refers to the rate of growth to the income elasticity to import and subscripts denote countries. A discussion about the behaviour of the balance of trade would, therefore, require knowledge of the income elasticity to import and the projected rate of growth of each country. Even if the income elasticity to import of country B were higher than that of A, the trade balance would improve for country B so long as country A grows at a higher rate than A and $E_A \sigma_A > E_B \sigma_B$. Conversely, even a lower value of the income elasticity to import in country B might be associated with deficit in the balance of trade if, country B plans to grow at a faster rate than A, and $E_A \sigma_A < E_B \sigma_B$.

An explicit assumption, therefore, would be necessary regarding the rate of growth in either country. Economic growth for country B may be defined in terms of (i) a positive rate of growth of per capita income, (ii) a rate of growth fixed by the Economic Authority after taking into consideration all the socio-economic factors within that country, or (iii) that rate of growth which at least is

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equal to the rate of growth in country A. The first concept could mean any value of the rate of growth between zero and infinity and would have no operational significance unless specifically defined as in concept two. Moreover, it would be highly objectionable, if the rate of growth is fractionally positive whereas country A is growing at a high rate. The second concept would give an appropriate definition for an individual country. But since our interest is in underdeveloped countries as a group, or in a representative underdeveloped country, our preference would be for the third alternative.

Such a definition of growth, derived from the writings of Prof. Myrdal and Prof. Myint requires a brief explanation. The concept of underdevelopment is a relative concept, in the sense that a country can be defined underdeveloped only by comparing it with developed country. It presupposes the norms of development and of a developed country. Under-development thus defined, ceases to be simply an objective fact, a country with low per capita income, or a country with living standards near subsistence level, but has to do more with the subjective attitudes of inhabitants about the expected levels of income and living. It is the discontent with the present standards

of living and the expectation that they could be substantially improved that exert pressure for economic development. Economic development, therefore, may be regarded as something more than just improvement in standard of living. It would also require that the existing divergence between the living standard of developed and underdeveloped countries should be narrowed down. Only in the light of such a definition could we understand the present concern and unrest for rapid economic growth in underdeveloped countries.

Given this definition of economic growth, the only determinant of the projected trade balance would be difference between the income elasticity to import of two countries. The latter would be influenced by various factors and policies pursued in a country. A glance at the statistics of output and trade of these countries roughly indicate that the income elasticity to import is higher in non-industrial than in industrial countries. Thus, the value of exports from industrial and non-industrial countries between 1923-1966 expanded by 39.0 and 38.0 per cent respectively. If the petroleum exporting countries

4. Cf. GerschenKron, Alexander - "The typical situation in a backward economy prior to the initiation of considerable industrialisation processes may be described as characterised by the tension between the actual state of economic activities in the country and the existing obstacles to industrial development on the one hand, and the great promise inherent in such a development on the other". Economic Backwardness in Historical Perspective in Hoselitz, B.F. (Edt.), The Progress of Underdeveloped Areas (Chicago, 1962), pp. 5-6.
are excluded from the latter group, expansion reduces to 18.5 per cent. 5 During the same period, per capita output in industrial countries increased by more than forty-five per cent whereas it remained more or less constant in non-industrial countries. 6 These facts suggest a lower income elasticity to import in industrial countries.

The choice of a shorter and more recent period also reveals similar trend. Between 1950-1957 the real gross national product increased by 3.98 and 4.14 per cent per annum in industrial and non-industrial countries respectively. 7 During the same years real imports in industrial from non-industrial countries increased by 3.93 per cent per annum, and in non-industrial from industrial countries by 5.71 per cent per annum. The facts roughly give an income elasticity to import of 0.99 for industrial, and of 1.38 for non-industrial countries.

The implications of these coefficients for the actual growth rate of non-industrial countries are at least disturbing, if not discouraging. First, the rate of growth

5. Cf. GATT - Export Committee, Trends in International Trade (Geneva, 1968), Table 2, p.20 and Table 3, p.22.


7. Cf. Khan, A.G. - The Trends in World Economic Disparity, ISJ, VIII, 1960, 355-358. The corresponding figures for per capita income were 2.70 and 2.38 per cent respectively, which indicate that a higher rate of growth of population in latter countries wiped out the positive difference in the rate of growth of the gross national product and that disparities in per capita increased.
of population in non-industrial countries is likely to rise
during early years because of reduction in mortality rates,
rising thereby higher than that in industrial countries. It
means that for per capita income to grow at the same rate as
in industrial countries, gross national product in non-
industrial countries will have to grow faster than in
former countries. Given the income elasticity to import
in two countries, however, this would imply a deterioration
in the balance of trade of non-industrial countries. Either
the rate of growth will have to be reduced, or some other
ways must be found to fill in the trade deficit.

Given the difference between the income elasticities
of two countries, the next problem is to provide explanations
why it is so. The following factors may be suggested as
having influence on the elasticity coefficient.

(1) Commodity structure of exports.

(ii) Import biased technological progress in
industrial countries.

(iii) Initiation of industrialisation in
non-industrial countries.

(iv) Superior competitiveness of industrial
countries because of the economies
of conglomeration.

(v) Excessive preference for imports in
non-industrial countries.

(vi) Inelasticity of supply of export commodities
in non-industrial countries.
(vii) Miscellaneous factors such as pattern of investment, gestation period of investment, and income redistribution in non-industrial countries.

I. Commodity Structure of Exports:

Since country A is assumed to be an industrial country and country B a non-industrial country, it can be safely assumed that country A would be importing primary commodities from B, and country B would be importing manufactured commodities from A. Statistically it is not difficult to justify this contention. The share of manufactured commodities (SITC sections 5 to 8) in exports from industrial countries was 66 per cent (to non-industrial countries possibly larger), whereas the share of primary commodities (SITC sections 0 to 4) in exports of non-industrial countries (excluding Oceania) was 89 per cent in 1953.8

For the sake of convenience, exports of primary commodities may be studied under two separate heads, namely, exports of food articles, and exports of industrial raw materials. So far as the food articles are concerned, it is argued by the application of Engel's Law to an aggregative unit, namely, country, that as the income expands, proportionately less out of it will be spent on food articles (exotic commodities such as cashewkernel and some variety of spices being exceptions). The generalisation has been

It as for the United States it is observed for industrial countries similar to Engel's law. In his study of income elasticity of demand for food in Latin American countries, he found that it was 1.0 for very poor countries, 0.7 for not so poor countries and 0.5 for comparatively well to do countries. For United States it was 0.25. By the process of deduction it may be argued that as income increases in country B, an increasingly larger portion of incremental income will be spent on manufactured goods. This would suggest that the value of income elasticity to import would be higher in country B than in country A.

II. Import biased technological progress in Industrial Countries

A phenomenon similar to Engel's Law is observed also for the consumption of industrial raw materials in developed countries. It has arisen chiefly due to innovations that have led to (1) economy in the use of raw materials, and (2) the substitution of a natural product by a synthetic product. The trend has been statistically corroborated by the findings of GATT, and of Prof. Schultz.


10. Cf. GATT, International Trade, 1955, pp.6-15. The findings indicate that in industrial countries between 1938 and 1954, ratio of total input to output declined from 26.8 to 20.8 per cent, whereas the ratio of 'natural' input to output declined from 25.0 to 17.9 per cent respectively. Similar results for United States have been observed by Schultz, T.W. Ibid, Appendix Table 4, p.326.
The first tendency, namely, declining raw material content of industrial output is ascribed mainly to shift in industrial countries from light industries, particularly to engineering and chemical industries which require less of input, and particularly of 'natural' input than in light consumer goods industries.

No such evidence, however, is available to determine variables that would explain the phenomenon of substitution between natural and synthetic products. Technological progress in recent years has been in the nature of replacement of primary material by synthetic substitutes (e.g. jute by paper, natural rubber by synthetic rubber, cotton by man-made fibres), economy in the use of raw materials (e.g. the electrolytic process of separating minerals) and reprocessing of scrap. Can it be regarded as an autonomous outcome of institutionalised research? Or is it related to scarcity and rising prices of primary commodities? It is difficult to give a straightforward answer. And economists do not seem to have arrived so far at a definite conclusion.

Though there is no explicit discussion of the causes of technological progress in the writings of Prof. Nurkse and Mr. Maizels, both of them appear to emphasise the autonomous nature of such progress. It is admitted

that the supply of primary commodities does tend to be periodically scarce and contribute to rise and fluctuations in prices. It is also true that important innovations replacing primary by synthetic materials have coincided with wars and prolonged periods of rising prices. This, however, is natural, and indeed to be expected. The periods of high prices provide the most appropriate time for the introduction of any substitute. Relative stability of price, reliability of supply, possibility of increasing returns and even intrinsic superiority of synthetic substitutes may be some of the other factors which invite technological innovations irrespective of movements in prices. At best, a period of high prices may hasten up the introduction of an innovation. A period of stable prices can not revert the trend.

Prof. Hirschman and particularly Prof. Cairncross, on the other hand, emphasize the scarcity of supply as the principal reason responsible for the replacement of primary by synthetic products.\(^\text{12}\) It is shown that between 1937 and 1950, export volume of primary commodities from industrial countries increased by about twelve per cent, whereas from non-industrial countries it declined by sixteen per cent or so. Unit export value of industrial countries, on the

other hand, doubled and of non-industrial countries trebled over the same period. Between 1950–57 both groups increased their exports by fifty per cent but their unit export values narrowed only slightly.

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<th>1937</th>
<th>1950</th>
<th>1957</th>
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<td>Industrial countries</td>
<td>96</td>
<td>108</td>
<td>163</td>
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<tr>
<td>Rest of the world</td>
<td>157</td>
<td>132</td>
<td>198</td>
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<tr>
<td><strong>WORLD TOTAL</strong></td>
<td>134</td>
<td>123</td>
<td>185</td>
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Compared to twenty five years before 1937, export performance of non-industrial countries in twenty years after 1937 do suggest some strain on supply. Stated differently, rising prices have been associated with decline in the share of non-industrial countries in total imports of primary commodities in industrial countries. Prof. Cairncross finds here a powerful reason for the industrial countries to economise in the use of imported materials and to accelerate the introduction of synthetic substitutes.

Prof. Hirschman takes a more cautious attitude and hesitatingly relates technological progress with the chronic scarcity of supply and instability in prices instead of to prolonged period of rising prices. But unconvinced of his own argument he ends up with a question: Would not the
It is difficult to disagree completely with either view. It seems, however, that Prof. Cairncross gives much less significance to rapid post-war reconstruction in industrial countries and delayed recovery in primary sector in non-industrial countries. Secondly, he has failed to emphasise the structural shift in trade in foodgrains; that some underdeveloped countries which were exporting foodgrains before the war, have become food importing countries, and that the United States has emerged as the largest foodgrains exporting country in the post-war period. Sufficient evidence is not yet available to synthesise satisfactorily these divergent views. Moreover, it falls outside the scope of present study.

It would suffice here to note that if the technological progress is regarded as a function of rise in prices, a lower value of the income elasticity to import primary products in industrial countries would be partly due to the price factor. To this extent a part of the balance of payments difficulties in non-industrial countries would be ascribed to monetary, and not to structural factors.

An important conclusion may be drawn from the preceding discussion that if the production functions are identical in two countries, innovations which are raw material saving in industrial countries, would be capital using or import using in their application to non-industrial countries.\(^{14}\) This leads us to the problem of industrialisation of non-industrial countries.

III. Industrialisation in Non-Industrial countries -

It is difficult to establish precise relationships between industrialisation, income, and level of imports. Imports are often regarded as a function of income, indicating a direct relationship between the two. But while it is true to say that as income rises, imports would rise absolutely, no specific conclusion can be drawn regarding their rates of growth. It is almost customary, however, to relate imports - particularly of capital goods - linearly with investment in industrialising countries.\(^{15}\) Since investment is expected to grow at a faster rate than income, imports would also grow at a faster rate than income. If the argument is so widely accepted, its justification, to readers' dismay, is generally inadequately presented. Following comments are intended to provide partial justification for the argument.


\(^{15}\) Cf. Bruton, passim; GATT Expert Committee, ibid, pp.48-50.
The above argument can hold true only if the following assumptions are satisfied.

(a) Structure of industries and of domestic output remains the same.
(b) Production functions are constant over time.
(c) No capital goods are produced in non-industrial country, or if they are produced, no substitution is possible between imported and home produced goods.
(d) Durability of the imported and the home produced capital goods is the same.

(a) A given structure of industries and output-mix will have a definite import-content associated with it, so that a different structure of industries and output-mix will have different level of imports necessary to produce them. If the output-mix at two different times is different, their import-content will also be different. And no simple relationship could be formulated between imports and the domestic output. To take an extreme case, if a predominantly agricultural, food-importing country decides to become self-sufficient in food, increase in domestic output (mainly of food) might be accompanied by a reduction rather than increase in imports. This would be particularly so if the increase in food output is brought about by organisational innovations such as consolidation of holdings and improvement in land tenure than by imports of fertilisers and tractors. Relationship between income and imports in this case will be weakened. But if increase in the food supply
helps to step up the rate of growth of industrialisation, imports would rise roughly in proportion to investment.

(b) If the production functions in an industry are variable, that is, if labour could be substituted for capital over time, or if the labour productivity increases faster than the productivity of capital, the additional output will have lower import-content and the income-import and the investment-import relationship will get weaker over time. But in the short run that we are interested in, the assumption that production functions are fixed, may be found less objectionable one.

(c) The third assumption accepts the relationship between investment and demand for capital and intermediate goods. It only states that if such goods are being increasingly produced at home and substituted for imports, investment-import ratio would decline over time. In an underdeveloped country, it would be more realistic to assume that there would always be a ceiling to the availability of home-produced capital goods at a given time. Any attempt at a faster rate of growth beyond one that could be sustained with the domestic availability of capital would require a proportionately larger volume of imports. Whether such a rate of growth could be achieved would, however, depend upon the capacity to import of the country.

(d) If the life of imported capital goods is different from that of home-produced capital goods, the
share of imports in total replacement demand and in gross investment would vary over time. To take a simple illustration, suppose that all buildings are made at home and all machines are imported from abroad. In most of the underdeveloped countries this is likely to be the situation during earlier stages of industrialisation. Life of the imported goods in this case would be shorter than that of domestic capital goods, and hence their share in total replacement demand would rise. This also partly explains the rapid growth of 'maintenance' imports in an industrialising country.

It may be concluded that on balance, imports would grow at a faster rate than income and probably also investment though the latter relationship could be drawn less confidently. That would depend largely on how incremental income is created (factor a) and the rapidity with which import substitution takes place in the economy (factor c).

IV. Economies of Conglomeration 16

The economies of conglomeratiuation or atmosphere creating economies play a significant role in determining the direction of commodity flows between nations. In simple terms this amounts to saying that a country at a higher stage of economic development would be generally in a more

advantageous position to start a new industry than a country than a country at a lower stage. A developed country has already acquired the necessary socio-political framework for economic progress, a network of transport and communications, a chain of financial and research institutions, a pool of technical and research personnel etc., and hence it is better equipped to start a new industry where these factors could more than compensate for the mere difference in factor endowments. The present trade relations between industrial and non-industrial countries are predominantly based on absolute differences in advantage. But as industrialisation proceeds in the latter countries the present trading pattern will undergo a change. Some of the industries newly-established in these countries would be of import-substituting type and would need protection in the short run. For, till the benefits of the economies of scale and of conglomeration are sufficiently reaped, home-produced import-substitutes may fail to withstand competition both in price and quality with foreign goods. In such case, given the freedom to import, consumers and producers in a non-industrial country would prefer imported varieties to domestic substitutes.

V. **Excessive Preference for Imports**

in Non-Industrial countries -

Preference for imports may be defined as excessive if it is based on considerations other than (or in addition
to) of price and quality, such as snobbery and prestige. This is not likely to be an uncommon phenomenon as evidenced by contraband imports of luxury articles and of consumers' durable goods in these countries. Its extent, however, is not known.

VI. Inelasticity of Supply -

In our discussion so far it was assumed implicitly that the supply elasticities of export commodities are infinite in both countries. The structural factors enumerated above could exert influence on the income elasticity to import irrespective of the supply and price considerations. But a low value of the elasticity of supply can influence the income elasticity as well. In that case what we require to know is whether the elasticities of supply are really so large. An affirmative answer may be given for country A, but can we answer the same for country B? We mentioned earlier that the share of non-industrial countries in world trade in primary commodities has gone down. This tendency, as argued by the GATT on the basis of trend in exports of eight semi-industrialised countries is associated with increase in the pace of industrialisation.\textsuperscript{17} The Expert Committee appointed by the GATT two years later admitted the correlation but related it not to the industrialisation as such but to certain policies in these countries which carry with them an anti-export bias.\textsuperscript{18} The hypothesis was put to test.

by Mr. Maizels and it was found that the relative stagnancy in exports of the semi-industrialised countries is not due to strain on supply as such but due to sluggish expansion in demand for their exports.\textsuperscript{19} The commodities that are exported by semi-industrialised countries have fared badly in international trade. Hence, the share of these countries as a group in world exports of primary commodities has gone down. Any such conclusion drawn from these data has its own limitations since the semi-industrialised countries as a group account for a large share in world exports of commodities they export, and therefore trends in world exports of these commodities are not likely to remain uninfluenced by the fiscal-monetary and other policies in these countries. The debate currently is at inconclusive stage. Nevertheless, in a country-by-country analysis, countries may be found which have suffered decline in exports or lost comparative advantage in exports of some commodities because of fiscal, monetary, wage and employment policies, and legislation which impede the growth of exports. In addition to these, the growing population and rise in domestic consumption may also make large claims on the export-surplus of a country. Countries which start with a surplus in export sector may find their surplus diminishing as industrialisation proceeds and new social legislation is created at home.

\textsuperscript{19} Maizels, A. - \textit{Ibid}, pp.
Let us assume that a country is prepared to undergo present sacrifices and maximise income (subject to pre-determined value premises of the Economic Authority) over a specific time period. If the time horizon so fixed is sufficiently long (say fifteen years or more), the rate of growth may be maximised by selecting in earlier period those industries the linkage effects of which are high. In other words, the emphasis would be on heavy and capital goods industries under what is referred to as the pattern of unbalanced growth. The gestation period of these industries, as a rule, would be longer, and secondly, the share of consumer goods in gross domestic product at the end of the gestation period would be smaller than under the pattern of balanced growth. Both these effects imply that the potential danger of rise in prices would be larger under unbalanced than under balanced growth. Just because the capital intensity of heavy and capital goods industries is normally higher than that of consumer goods industries, a given size of investment programme in terms of domestic resources would require larger imports under unbalanced growth than under balanced growth. Moreover, in order to keep prices stable or inflation within bounds, a larger volume of imports of consumer goods would be necessary under unbalanced growth because of the two indirect effects just mentioned. It follows that higher the rate of growth, the higher the income elasticity is likely to be.
The distribution of incremental income in early years is likely to be in favour of those income groups (comprising of urban groups and rich income groups) whose marginal propensities to save, to invest, and to import are higher than those of other groups. To achieve a higher rate of growth, it is necessary that the saving rate should be stepped up and in a mixed economy this would require distribution of income in favour of capitalist class whose saving propensity is high. This would also result in increase in demand for imports. These two factors influence the income elasticity to import both for structural as well as monetary reasons. But the impact of the price rise or of the prospects of it being so on demand for imports would be probably more important than of the structural factors.

The various factors stated above explain why the income elasticity to import is higher in non-industrial than in industrial countries. Secondly, it shows that the initiation of the process of industrialisation is bound to accentuate the difference particularly during early years. They also suggest that the value of the income elasticity is not independent of the rate of growth, and that higher the rate of growth, higher is likely to be the value of the income elasticity to import. That is, after a certain rate of growth, income elasticity is likely to increase at an increasing rate with a rise in the rate of growth. Demand for imports, in other words, would rise at an increasing
rate with every rise in the rate of growth. The problem for non-industrial countries therefore is how to reconcile the need for rapid economic growth with the maintenance of equilibrium in their balance of payments at the same time. To this now we turn.

The disequilibrium in the balance of trade can be corrected by (1) reducing the rate of growth, or (2) the inflow of foreign capital, or (3) devaluation or (4) imposition of import restrictions.

The first choice is ruled out because these countries are undergoing balance of payments difficulties even when their rate of growth of per capita income is less than that of industrial countries. But if other measures fail to restore external equilibrium, a country may be compelled to reduce its rate of growth. We shall, therefore, keep this choice out of discussion.

Role of Foreign Aid -

The best method of correcting disequilibrium is the flow of capital from the surplus country to the deficit country, just as redistribution of income in a closed economy is best brought about by lump sum measures, redistribution of income in a world economy would be best achieved by capital transfers to the deficit countries. An alternative to this would be the imposition of tariffs on imports from
the surplus countries. By improving the terms of trade of
tariff-imposing country this may lead to redistribution
in favour of it. But it might also encourage establishment
of industries irrespective of comparative advantage and
"destroy the world-wide attainment of the General Optimum
and disrupt the allocative efficiency of the world economy."

The flow of international capital into deficit
country raises following issues:

(a) Is the size of inflow of capital adequate
    for the requirements of the deficit
country?

(b) Is it bilateral or multilateral?

(c) Is it tied to some project?

(d) Would the present borrowing solve the problem
    of repayment in future?

The answer to first question would require
knowledge of the requirement of foreign capital in non-
industrial countries. Several estimates of the annual
requirement are available ranging from 24 billion dollars
of Colin Clark (referring to the entire world and not only
to non-industrial countries) to 4 billion dollars by FAO.21
It should be noted that all these estimates are made on the
basis of investment needs and assumptions regarding the

20. Graaf, J de V. - Theoretical Welfare Economics,

21. For a discussion of these estimates and methodology
underlying them see Brand, W. - The Struggle for
A Higher Standard of Living, (Hague, 1958),
pp. 313-319.
savings ratio to achieve a specific rate of growth in non-industrial countries, and not on the basis of exchange requirements under the assumption of free trade. All these estimates, however, are theoretical, and logically consistent given the underlying assumptions. More recent estimates by Prof. Rosenstein Rodan put the foreign capital requirements of non-industrial countries at 5.7 billion dollars per annum for the decade beginning with 1961.\textsuperscript{22} This contrasts well with the actual outflow of 4.1 billion dollars (including 0.5 billion from the U.S.S.R.) to non-industrial countries in 1960. Of this, the share of United States amounted to 2.75 billions consisting of about 0.75 billion of military aid. The problem of inadequacy of foreign capital becomes sharper when we look at the distribution of U.S. aid among countries. Thus, in 1959, of the total net non-military grants and credits amounting to 2 billion dollars 0.8 billion went to seven countries (Greece, Turkey, Pakistan, China Taiwan, Philippines, South Viet Nam and South Korea) with which United States has military arrangements.\textsuperscript{23}

Apart from the inadequacy of aid, nearly three-fourth of foreign aid is of bilateral type. And such aid

\textsuperscript{22} Rosenblatt, Rodan - International Aid for Underdeveloped Countries, REST, XLIII, 1961, pp.107-138.

\textsuperscript{23} Cf. Statistical Yearbook, United States.
is normally not independent of non-economic motives. This
is best illustrated by the following quotation from a study
of United States Assistance Programmes to the South East
Asian countries:24 "As a matter of fact, in the history
of United States aid to Southern Asia, economic objectives
have not been particularly important in the sense of
directly affecting the allocation and use of aid ....
The reason has been that, in the context of both 'cold war'
and 'competitive coexistence', political objectives in
Southern Asia were considered of such over-whelming priority
that they became the determining guides to aid needs and
uses. Nor is this surprising. Economic aid is an
instrument of foreign policy. As such whatever the
objectives that should actually govern its use must depend
on the higher level choices of U.S. foreign aid". "Among
the political motives of non-military aid are, maintenance
of "internal political strength and stability" in recipient
countries, acquisition of "friendship and influence", and
"countering Soviet Block economic aid". This may amount
to interference in the domestic affairs of recipient
countries.

Moreover, a loan may be tied, that is, it may be
given for a specific project and only imports for that

24. Wolf, Charles Jr. - Foreign Aid: Theory and Practice
project can be had from the donor country. In that case, trade deficit can persist even though the aid is unutilised (assuming that the project is not completed). By accepting such loan, the receiving country does not necessarily buy from the cheapest source nor for the purpose it thinks best. The real value of foreign exchange acquired through borrowing in this manner would be normally less than the equivalent amount acquired through multilateral untied loans.

Lastly, there is the problem of repayment. Transfer burden will be of no serious concern if the utilisation of loan results into development of exports facing an income elastic world demand, or if it diminishes import requirements through the process of import-substitution under the shelter of tariff walls. The process of import substitution raises two issues:

(a) It might initiate movement away from the optimum regional specialisation.

(b) By favouring industries with low capital output ratio at the cost of heavy industries and public utilities which yield results over a longer period, it might step up the current rate of growth but then this might lead to a lower rate of growth over time.25

Export prospects of the borrowing countries will depend on following:

(1) Generation of export surplus within the economy;

(2) Competitiveness of these products in international markets; and

(3) The commercial policies of industrial countries. Exports of manufactured goods are likely to be handicapped because of the difficulties arising from the factors two and three.

The above discussion should not be interpreted to imply that a country should not borrow. It just points out some of the limitations of borrowing. An efficient borrowing policy would require that (a) the aid should be multilateral, preferably untied, (b) it should have longer maturity periods so as to facilitate creation of export surplus, and (c) the borrowing country should be allowed to repay partly in terms of commodities, if the aid is bilateral. Trade, in case of bilateral aid should be tied with aid in both directions.

Devaluation -

If the inflow of foreign capital is not sufficient to restore the balance of payments equilibrium, according to the classical theory, the deficit country should devalue its currency. The conventional approach analyses the effect
of devaluation on the trade balance of the devaluing country in terms of demand and supply elasticities. It states that if the elasticities of supply in the devaluing country and the rest of the world are of infinite value and if the sum of price elasticities of demand is greater than one, devaluation would improve the trade balance.26

The literature on statistically derived elasticities of demand to primary commodities indicates that their value is generally less than one and are nearer to zero than one. The demand for imports in underdeveloped countries, on the other hand, is likely to be inelastic because of the crucial significance of imports to industrialisation. The statistical estimates of elasticities, however, are criticised as unduly pessimistic. The methodology (of least square method) applied to derive these estimates is shown to be biased and yielding strong and systematic underestimation of actual values.27 Moreover, the elasticities are likely to be larger, larger the change in price. In that case, if the devaluation is of a larger magnitude, the sum of two price elasticities of demand would also tend to be larger than one. The elasticity of supply in the rest of the world is likely to be high if the share

26. The formula associated with the name of Lerner runs as follows: \( n_A + n_B > 1 \) where \( n_A \) and \( n_B \) are the elasticities of supply of countries A and B respectively. Two other assumptions underlying this formula are: (1) Initial trade balance is zero; and (ii) income-effects of devaluation are zero.

of the devaluing country in world exports is small. Nothing
definite, however, can be said regarding the elasticity of
supply in the devaluing underdeveloped country. But so long
as in the pre-devaluation state (i) imports are in excess
of exports, and (ii) as a result of devaluation import
price in foreign currency declines in the same proportion
as the export price (also in foreign currency), trade
balance of the devaluing country would improve. Thus, if
before devaluation imports were twice the level of exports
and if devaluation leads to five per cent fall in export
price and two and half per cent fall in import price, trade
deficit would remain unchanged if the physical units of
exports and imports remain unchanged. More probably,
however, exports in physical units would increase, imports
might decline, and the trade balance of the devaluing
country would improve.

A fundamental objection raised against this
approach is that the elasticities that these formulas
employ and for which only they are valid are partial
elasticities. The extension of the Marshallian partial
equilibrium analysis which is very useful for the determination
of price and output of a single commodity is highly

(Princeton, 1961) 'The condition that the sum of the
two demand elasticities is greater than unity is a
sufficient, but not a necessary condition for the
balance of payments to improve, that is to say, to
react "normally" rather than "perversely" to a
depreciation. Even if this sum were smaller than
unity, the balance of payments could still improve
provided the supply elasticities are sufficiently
small.' p. 37.
disputable to a situation which is essentially of general equilibrium nature. It is indeed wrong to assume that demand for imports is independent of what happens to exports and that supply of exports is independent of what happens to imports. According to the new approach to analysis of devaluation, called the income absorption approach, what we require is the knowledge of total elasticities of demand and supply. The latter is defined as the ratio of a percentage change in quantity, to a percentage change in price. The percentage change in price is not equal to percentage change in devaluation but takes into consideration all the price and income changes that are direct as well as indirect effects of devaluation. The same applies to quantity change. To say that 'the effect of a devaluation depends on the elasticities 'thus' boils down to the statement that it depends on how the economic system behaves.29

According to this approach a currency devaluation would improve the balance of payments if the total expenditure is not allowed to expand in the economy. But expenditure may increase for the following reasons:

(1) The domestic price of internationally traded goods will rise compared to that of non-traded goods. This would induce some shift in consumption from the former to latter commodities, and shift in production in the opposite

direction. It would give a general rise to prices.

(ii) A rise in price may lead to expectations regarding future rise in prices and therefore result in increase in expenditure.

(iii) Mis-timed wage and credit policies might lead to increase in expenditure.

(iv) Investments with significant import-content may be carried out even at a high cost. It is possible that the net balance would be nearly reduced to zero, if unemployed resources exist and the income generation effects through multiplier and acceleration are large. In underdeveloped countries with their shortages of consumer goods, capital goods, particularly imported goods, technical skill etc., the income generation effects of devaluation, however, may be weak. Hence, improvement in the balance of payments may be brought about by reduction in investment rather than through increase in savings associated with a rise in real income.

In addition to these, two weighty arguments are often raised against devaluation. First, since the balance of payments disequilibrium is of structural type, devaluation could not be an all-curing remedy. It may provide a temporary breathing spell and improve balance of payments in the short run. But disequilibrium due to above-mentioned structural factors would again arise and further devaluation
might become necessary. Secondly, if the share of exports of the devaluing country in world exports is significant and if the magnitude of devaluation is large, it would have serious repercussions on the trade balance of countries exporting similar goods. If other countries also follow a suit, part of the effects of depreciation would be nullified. Deficit in trade may be reduced but it would be associated with a lower level of trade. Devaluation, therefore, would not be the proper corrective measure when the disequilibrium is due to deep-rooted structural mal-adjustments in the deficit country.

Imposition of Other Restrictions —

Balance of payments disequilibrium could also be restored with the aid of tariffs, quotas and exchange restrictions. The merits, demerits and difficulties of each are discussed extensively and learnedly elsewhere, and it would be inappropriate to summarise the literature here. One unanimous conclusion emerging from the discussion is that if all the marginal conditions for General Optimum are satisfied in an open economy, free trade would be superior to restricted trade. But if one of the conditions is not

30. See (i) League of Nations, *Quantitative Trade Control* (Geneva, 1943),
(ii) League of Nations, *Trade Relations between Free Market and Controlled Economies* (Geneva, 1943),
satisfied, restricted trade is superior to free trade. The choice, therefore, is not between free trade and restrictions, but between types of restrictions. The following discussion is confined to the issue whether a country should enforce discriminatory or non-discriminatory restrictions, on the assumption that imposition of restriction by one country would be met with retaliation by other countries.

Imposition of any restriction on imports in non-industrial countries is intended to change the structure of imports, not to diminish them. Imports are still kept at maximum subject to the availability of foreign exchange. Let us assume that the deficit countries impose non-discriminatory tariff on some imports. For the sake of convenience, the two country analysis is extended to multi-country world. And all trading countries are arranged according to the 'strength' of their balance of payments. In other words, the country with the largest surplus would be at the top and the country with the largest deficit at the bottom of the arrangement. To illustrate, if countries A, B, C, D, E are arranged in order of the strength of balance of payments, A would have surplus and E would be in deficit with the rest of the four countries. Country B would


32. The following discussion is based on the article by Fleming, Marcus, 'On Making the Best of Balance of Payments Restrictions on Imports', J.P., LXXI, 1952.
be in deficit with A, but would have surplus with C, D, and E, and so on. The preceding discussion suggests that most of the non-industrial countries would fall in lower group.

The arrangement of this type would probably coincide with the classification of countries based on per capita income. The higher the level of per capita income of a country, larger the probability that it will have surplus with countries with lower per capita income. Objections may be raised that a low income non-industrial country could as well have a surplus with a high income country. Or, for that matter, it is not unlikely that each industrial country with a higher per capita income will be in deficit with at least one low income non-industrial country. This indeed may be true. But if we define A, B, C..... as groups of countries, falling in specific income groups, our contention may appear less objectionable one. It only indicates that the degree of complementarity between imports from industrial countries, and domestic production in non-industrial countries is larger than that between underdeveloped countries themselves.

Let us assume that a non-industrial deficit country imposes non-discriminatory restriction on imports. Restrictions being non-discriminatory, they would apply to surplus and deficit countries alike. The trade deficit of
other non-industrial countries, therefore, would increase. Further restrictions will be necessary to restore the equilibrium in other non-industrial countries. They in turn, would reduce imports from the first country and from others. There is one more intensifying factor. Since demand for imports from industrial countries is for more essential products and therefore, more price inelastic, impact of import restrictions will fall more heavily on imports from non-industrial countries themselves. Countries which were just managing to have a balance in their balance of payments, will be gradually reduced to deficit with each round of heightened restrictions. The process will continue till all countries except one at the top are reduced to deficit positions. And the volume of international trade will shrink to a low level.

Non-discriminatory restrictions, in such a situation will lead nowhere near to the optimum solution. All countries except the 'strongest' will accumulate surplus of goods which could have been exchanged for more essential goods from the 'weaker' or intermediate countries. Relatively 'stronger' countries would restrict imports from weaker countries, thus inflicting "unnecessary hardships on the latter without benefit to themselves".\textsuperscript{33} By refusing to give a preferential treatment to imports from intermediate countries over imports from strong countries, on the weak

\textsuperscript{33} Fleming, M. - \textit{Ibid}, p.
countries, on the other hand, impose "on intermediate countries a sacrifice which outweighs the benefit which they themselves derive from buying in the cheapest market". Volume of trade under discriminatory restrictions, no doubt, would shrink, but less than under non-discriminatory restrictions.

This apparently simple theoretical solution is full of many complications. It would imply restrictions on freedom to import. It may amount to balanced trade with a particular country. It could also mean more trade in relatively less essential commodities and, therefore, reduction in welfare of trading countries. But these need to be examined. In the following Chapter we shall define and discuss the principal means of discriminatory restrictions, namely, bilateral trading arrangements.

34. For an arithmetical demonstration of this argument in a case involving five countries, see Meade, J.E. Balance of Payments, (London, 1951), pp.