1.0 The existing international economic order operating under the principles of quasi-free market mechanism, discriminates against the developing countries. This bias is a built-in factor in the present international trade order which is an integral part of the global economic order. The injustice flows from several factors, mainly from the built-in greater bargaining power of the developed economies because of their superior economic strength. It is aggravated by the international economic and trade institutions, like IMF and GATT, which impose same rules and regulations for the industrialised as well as non-industrialised countries. The deterioration of the developing countries' terms of trade, which leads to the unequal distribution of the global gains from trade, is an outcome of the existing trade system. The net result is a widening of the international inequality gap between rich and poor nations.

1.1 It is in this setting that our study examines India's terms of trade vis-a-vis the rest of the world. As our major trading partners are the industrialised countries, this work also throws light on the course of terms of trade of a semi-industrialised country in its trade with industrialised countries. We have also tried to observe the effects
of changes in terms of trade on India's economic
development.

1.2 Inspite of all its weaknesses, the terms of trade
concept still commands serious attention in analysing the
process of economic growth. Firstly, because the terms of
trade index has vital quantitative significance for develop-
ing countries like India. Secondly, it serves as an indi-
cator of the net result of many divergent economic variables
and has far-reaching welfare connotations.

1.3 Most of the discussions about the changes in terms
of trade were studied in terms of group aggregates. A
couple of studies about India's terms of trade were concerned
only with the net barter terms of trade and covered a period
upto sixties. In the present work, we examined and analysed
not only the barter terms but also the income terms of trade
which is a better concept in the sense that it indicates
the import capacity of the export earnings. The period
covered goes upto the end of seventies.

1.4 An important issue that we have raised in this
study is the impact of terms of trade on transfer of
resources. Many economists feel that instead of real
resources moving from the developed to the developing
areas, a reverse movement is actually taking place.
A group of prominent economists - Prebisch, Singer and Myrdal have presented the secular deterioration hypothesis. They have advanced arguments in support of their contention that the developing countries' terms of trade are worsened when they trade with the developed countries. We have empirically tested the Prebisch-Singer-Myrdal hypothesis by comprehensively examining the behaviour of India's net barter terms of trade for a period of thirty years. We have tried to verify the secular deterioration theory not only on the basis of general terms of trade but also by studying the sectoral individual commodities' terms of trade.

1.5 The methodology of this study is primarily empirical in nature. In empirical investigation of the trends in the terms of trade, we can resort to various forums of analysis which if applied to the data, could help us in explaining the course of a particular terms of trade time series. In the present work, we have adopted the approach of analysing the cyclical and short-run random movements of prices of exports and imports of important individual products consisting of price indices of exports and imports. In other words, an examination is made of short-run movement in individual relative prices in the context of economic fluctuations. For this purpose we have divided our period of study into segments of short-periods.
1.6 We have used statistical methods in order to find out the relationship and relevance of various variables that operate in the external sector of India. The main statistical technique that we have used in this study is the application of index number formula because all the measures of terms of trade are ratios of indices. The index numbers of unit value and quantum of aggregate, sectional and individual exports and imports have been calculated by this technique. We preferred the Paasche formula for calculating the sectional and the general unit value index.

The sectional unit value index was calculated by the following formula:

\[ P_j = \frac{\sum_{i=1}^{n} p_{1ij} Q_{1ij}}{\sum_{i=1}^{n} p_{0ij} Q_{0ij}} \times 100 \]

and, the general unit value index by the formula:

\[ P = \frac{\sum_{i=1}^{n} p_{1i} Q_{1i}}{\sum_{i=1}^{n} p_{0i} Q_{0i}} \times 100 \]

1.7 The statistical calculations for various measures of terms of trade were made by us independently. The following formulae were used:

\[ \text{Net Barter Terms of Trade (N)} = \frac{P_{1i}}{P_{x0}} / \frac{P_{x1}}{P_{no}} \]

* Symbols have been explained in the text of the thesis.
1.8 Our study covers a period of three decades, 1948/49 - 1976/79. It has been divided into three separate short-run periods, ranging from nine to eleven years. The first covers the period 1948/49 - 1957/58. The second one runs from 1958/59 - 1967/68. The last one studies the trade in terms of trade during 1968/69 - 1978/79.

1.9 During 1948/49 - 1957/58, the net barter terms of trade moved against India for a greater part of the period. The terms moved in our favour only during the first three years, 1948/49 - 1951/52. Thereafter, the barter terms of trade continuously deteriorated, till in 1957/58 they were 14 per cent below the base level of 1948/49. The marked deterioration in the net barter terms of trade was due to a proportionately greater adverse movement in the export prices than the import prices. We found that the income terms of trade moved in India's favour despite the deterioration in barter terms of trade because of a favourable movement in export volume during this period. But when we smoothened out the fluctuations by taking out a 3-year average centered eight years before the current year, we found a downtrend not only in the net barter terms of trade but also in the income terms of trade.
1.10 During 1958/59 - 1967/68, the net barter terms of trade moved in India's favour. The favourable movement was due to three factors. Firstly, India benefited from the expansion in world trade which was reflected in India's high export prices. This coupled with falling import prices resulted in the favourable movement of the net barter terms of trade. The second reason was the gap between world demand and supply which pushed up the prices of India's raw materials exports. Thirdly, bilateral trade and payments agreements safeguarded the export prices. India also enjoyed a favourable income terms of trade during this period.

It was even higher than the net barter terms of trade.

The reason for the higher level of income terms of trade was a constant increase in export quantum.

1.11 The movement in the net barter terms of trade showed two phases during 1968/69 - 1978/79. The dual effect of the movements of export and import unit values made net barter terms of trade favourable to India till 1973/74. But, subsequently the terms of trade reversed its movement. The period, 1974/75 - 1978/79 experienced such a severe deterioration in net barter terms that it completely countered the earlier gains. When we compared it with the gross barter and income terms of trade, we found that the net barter and income terms of trade were both above the base level and moved in the same direction during 1969/70 to 1973/74. On the other hand, the gross barter
terms were below the base level till 1973/74. A change occurred in all the three measures of terms of trade since 1974/75. The barter terms moved down below the base level and remained at that level till the terminal year of our study. The reason for the downturn in barter terms was a higher growth rate in import unit values as compared to export unit values. But, the income terms of trade continued to be above the base level. The factor responsible for the uptrend in income terms of trade was a continuous enhancement in export quantum. As far as gross terms of trade was concerned, it deteriorated because of a lower import volume as compared to export volume.

1.12 The study has enabled us to conclude that the short-term movement of terms of trade was dictated by the commodity structure of India's foreign trade. Despite a gradual change in the composition of India's exports, the movement of India's terms of trade during fifties and sixties was considerably influenced by the movement in the major traditional exports like tea, coffee, cotton textiles, jute goods and metal ores. In the seventies, when the commodity composition experienced a greater degree of diversification, non-traditional exports like marine products, leather and leather manufactures and engineering goods influenced the terms of trade to a great extent. The effect of the strategic imports of crude petroleum and petroleum products
was also evident in the deterioration of India's net barter terms of trade in the second-half of the seventies. These facts support the secular deterioration hypothesis.

1.13 In the opinion of some economists, no appreciable changes take place in terms of trade during the short term. But, our study showed that the terms of trade underwent changes even under short-term. It was also discovered that the demand factor played a significant role in their movement. The perfectly price elastic nature of the supply factor was also not borne out. An examination of the supply of major Indian exports indicated that the supply failed to respond to price changes.

1.14 In the subsequent paragraphs we will summarise the effects of terms of trade on Indian economy. We find that India's export prices failed to reflect the domestic cost of production. It happened because even in major exports like tea, jute goods and cotton textiles India was facing the restraints of an oligopolistic market. There was no question of reflection of domestic costs in export prices of other exports because in them India was only a marginal supplier in the world market. In the case of imports also, India was unable to influence the price of her imports because her share in the world trade and in
the exports of the developed countries was negligible. Sometimes the developed countries dictated the import price to India because of her strong import demand for the capital goods of the industrialised countries. India's inability to influence its exports and imports prices was one the the main reasons for the unfavourable trend in the net barter terms of trade.

1.15 The expectation that the depreciation of a currency turns the terms of trade against the depreciating country did not come true in any of the years when the devaluation of the rupee had taken place. Such expectation, it should be remembered, is based upon the fulfillment of certain conditions which did not prevail in India. The devaluation of 1949 could not exert any unfavourable effect on terms of trade because of the emergence of the Korean boom which brought in its wake, forces which improved India's terms of trade. Similarly, even the substantial devaluation of the rupee in 1966 was unable to exert any adverse effect on the terms of trade.

1.16 The changes in the net barter terms of trade had significant effects upon India's balance of trade. Our examination of the effects of changes in terms of trade on balance of trade does not entitle us to frame any rigorous hypothesis, but the following conclusions do emerge:
(a) The total changes in the balance of trade due to the terms of trade were high but not very consistently. There were years when the changes were very high, and there were years when such changes were not that pronounced.

(b) The impact of terms of trade upon balance of trade has been negative whenever terms of trade deteriorated from the base year's level.

(c) A mere increase in exports may not help in closing the trade gap if terms of trade index is left unsaddled to deteriorate. It is true both in the overall balance of trade and sectoral trade balances. Thus, the need to have closer monitoring of the terms of trade cannot be overemphasised.

1.17 The terms of trade play a strategic role in the economic development of an economy through its effects on the availability of foreign exchange resources. The changes in India's terms of trade failed in generating foreign exchange in the decade of fifties because of the deterioration in the net barter terms of trade. We did gain on the foreign exchange front during the sixties because of the favourable movement in the terms of trade.
During the first half of the seventies, we gained some foreign exchange because of the stable terms but in the second-half the loss of foreign exchange was quite heavy due to the sharp decline in the net barter terms of trade. In fact, it more than countered the gains of early seventies. We are of the opinion that, on the whole, movement in India's terms of trade was responsible for the loss of a considerable amount of foreign exchange, which we would have earned if the terms of trade had remained stable. The terms of trade, therefore, did not play a positive role in the economic development of the country.

1.18 India's economic development has not made a deep dent on the basic structure of the economy because the rate of growth is low. Though the share of manufactures has increased in total exports, India's export trade still does not reflect the structure of a completely industrialised economy. The failure of a fundamental change in the economic structure was the basic cause of a lack of change in the structure of India's foreign trade sector which was imperative for a salutary effect on terms of trade. We, therefore, conclude that the impact of economic development on India's terms of trade was weak and, therefore, failed to check its unfavourable movement in the face of countervailing forces.
1.19 The basic contention that emerges from this work is that the fluctuations in India's net barter terms of trade, through its adverse effects on balance of payments and distribution of global gains from trade, is working as a constraint on her economic development. Our conclusion broadly supports the basic hypothesis of Prebisch-Singer-Wyrdal Doctrine.

1.20 In the interest of economic development, we should try to reduce the constraint imposed by fluctuations in India's terms of trade. The solution to the problem of adverse terms of trade is to restructure the distributional pattern of productive resources - from sectors where the foreign exchange realisation per unit is declining to those where the unit value realisation is increasing. The solution to improve the income terms of trade is a high growth rate in export quantum.

1.21 We have suggested the following measures to achieve these basic objectives:

A. Policy of price stabilisation;
B. Increase the price elasticity of exports;
C. Diversification of commodity composition of trade;
D. Diversification of markets;
E. Higher degree of import substitution;
F. Transfer of appropriate technology;
G. Change in the international trade order.
1.22 The adoption and vigorous implementation of the suggested measures can exert a healthy influence on India’s terms of trade by stabilising unit values of India’s imports and exports; increase the price elasticity of exports and exportables; diversify the commodity and country composition of India’s foreign trade; and accelerate the rate of industrialisation through a higher degree of import substitution and adoption of appropriate technology. In this way, these measures will help in improving not only the general terms of trade but also the sectoral terms of trade. We have also suggested that for an effective implementation of these measures, a reform in the present international trade order is essential.

1.23 The implementation of this policy prescription will solve the twin problems of adverse effects of terms of trade on balance of payments and national income. It will lead to a more viable distribution of internal resources which will help to reduce the intensity of negative effects of terms of trade on the economy. Improvement in the terms of trade will mean a greater inflow of external resources that can be invested for productive purposes. Positive movement in income terms of trade
will enhance the import capacity of India's export earnings which will enable her to import a greater amount of strategic development inputs. We are, therefore, of the opinion that the terms of trade policy suggested by us will impart stability and strength to India's external sector through its restructuring. It will also accelerate the rate of India's economic growth by increasing her share in the gains from trade and thus will help in augmenting the net national income.