Chapter 2
THEORY AND HISTORY OF TRADE POLICY:

Trade is a principal way to link a number of economies through the extension of market from the national to the international level. Analysis of trade behaviour raises two types of question, the first type belongs to the realm of positive economics and the second to welfare (or normative economics). Examples of the question of the first type are why do nations trade? What commodities do they trade? with whom do they trade? why is it that some countries show spectacular export performance while other do not? Thus the first type of issues refer to the analysis of the determinants of trade behaviour at the various level of the trade activity. The second type of question is concerned with the normative prescription as to what should be the choice commodity composition of imports and exports, choice of importing and exporting firms, choice of trade strategies or policies etc., obviously normative analysis implies specification of a welfare criterion for the choice problem. Analysis of the issue one type may, of course, provide answers to the questions of the other. Trade theory has developed in both the directions beginning from the
THEORY OF ABSOLUTE ADVANTAGE: Adam Smith became the first prophets in international economics because of the influence of his vigorous attacks on mercantilist restrictions and his alternative economics premises of "laissez-faire", free trade. He gave a focus to preceding economic thought by his systemisation and elaboration of its revolutionary principles and above all, because of his identification of the concept of "absolute advantage" which provided the foundation stone of what was subsequently developed by others into a law of comparative advantage.

Adam Smith saw the main benefits of trade as allocative efficiency gains; increased 'enjoyments' and the stimulus to economic growth provided by widening the extent of the market.

Smith emphasised one possible function of trade, which was neglected by subsequent writers and not incorporated in
the development of classical comparative cost theory that trade provided a 'vent-for-surplus' function, whereby a country's 'superfluities' of production could be exchanged for something else, which may satisfy a part of its wants and increase its enjoyments.

Thus Smith's particular contribution was the exposition of a 'productivity' theory of the virtues of trade: that is specialisation is limited by the size of the market and that in the post-trade situation external trade widens the extent of the market, and results in 'new divisions of labour and improvements of art, thereby arising productivity within each trading country and further promoting economies of scale. Little attention was given to labour or capital mobility. He did, however, recognise both the 'natural protection' afforded geographically by transport costs and the importance of the availability and quality of transport facilities and realised that, in the extreme case where transport costs more than outweigh production cost differentials, some goods may not enter into international trade at all. Smith argument seems convincing but it is not very deep, it was left to Torrens and Ricardo to produce the stronger and more subtle arguments for the benefits of trade.
Torrens is to be credited as being responsible for sowing the seed of the idea of comparative advantage case which was to be given explicit germination by Ricardo. Torrens developed Smith's ideas concerning the advantages of the division of labour between different areas. He claims that the gain from trade is the excess of what is obtained indirectly via trade over the amount directly produced domestically by the same quantity of resources, he implicitly suggested that benefit would arise from different domestic cost relationships. However, it lacked the final emphasis upon the comparison of ratios which is the ultimate essence of the principle. The main credit for this rests with Ricardo who was the first economist to advocate a theory of international trade distinct from the theory of intra-national trade because of an alleged condition that labour and capital were immobile between nations while they were free to move within one nation.

THEORY OF COMPARATIVE ADVANTAGE: Ricardo presented his comparative cost discussion with reference to the domestic relative real labour cost values obtaining in each country in the pre-trade closed economy position. These values are not expressed in terms of money as the common denominator put by reference to the days of unskilled labour
required to produce defined quantities of each of the two products under consideration to which disparate rates are reducible in principle. Thus the relative value of goods is determined by the amount of labour so applied. This labour theory of value requires that capital and labour are employed in the same proportions in the production of all commodities.

Within the static operational context of a two nation, two-commodity model, where labour is mobile nationally but immobile internationally, with perfect competition prevailing in all factor and product markets, constant costs of production (no economies or diseconomies of scale), zero transport costs and barter trade, production is measured nationally in terms of its relative domestic real labour costs of production. In comparing national sets of labour costs ratios, a basis for trade is shown to exists where absolute and comparative advantage persists but not where equal advantage exists.

1. A nation tends to export those commodities which, as compared with their relative (real labour) costs abroad are less in relation to the real labour cost of other commodities. Conversely, the imports of a
nation tend to be those of which the comparative real labour costs of production at home are greater than abroad.

2. The basis for profitable trade is established by intra-country differences in relative (labour) costs; inter-country differences in absolute levels of productivity in all products are no barrier to trade.

3. The gain to a country consists in getting indirectly through product specialization and the exchange of the quantities surplus to domestic requirements, more goods, or better quality goods, than could be produced at home by the employment of the same quantity of labour resources (though the possible gain could be used to obtain increased leisure)

4. At the global level, the gains from trade will be qualitatively greater, the wider the zone of profitable exchange and quantitatively greater, the larger the volume of the actual trade flows.
5. At the national level, the further the ultimate barter terms of exchange from its autarkic cost ratio (and the nearer that ratio is to the partner country's autarkic cost ratio) the larger will be the national share of that country of the given global trade gain.

Thus, comparative cost theory provided an abbreviated account of the conditions of supply while it remained quiet about demand. It was J.S. Mill, who answered these questions giving his concept, generally called "Law of Reciprocal Demand" and sometimes the "Equation of International Demand".

Mill presented his discussion on the base of reciprocal Demand, i.e. that the produce of a country exchanges for the produce of other countries at such values as are required in order that the whole of her exports may exactly pay for the whole of her imports.

Marshall and Edgeworth gave the classical model its final integrity, by adding the general equilibrium analysis depicted by means of 'offer curves', on the assumption that the operations of monetary institutions did not in the long
area seriously effect the dimension of the real quantities or the forms of the "real quantity" functions. Thus, for the first time, a model of international trade relations had been provided in which changes in both demand and supply were analysed and international trade flows were shown to depend not only on comparative costs, i.e. supply, but on the conditions of demand.

Ricardo's classical mutual interdependence theory of comparative advantage, as reinforced by Mill's reciprocal demand analysis and extended by Marshall's and Edgeworth's neo-classical graphical presentations, dominated international economic thought for over a century, despite continental criticism. It was replaced by a new theory that evolved as a result of Heckscher's article Foreign Trade and the Distribution of Income (1919), Ohlin's book International and Interregional Trade (1933) and subsequent additions contributed by Samuelson (1948).

THE NEO-CLASSICAL HECKSCHER-OHLIN THEORY: More explicit developed and comprehensively model presented by Heckscher-Ohlin, provided for the first time, an analysis that was capable of integrating the factor markets into international trade theory, subsuming an analysis of price
formation in both the product and factor markets. The essence of factor endowment theory of comparative advantage is (a) a factor proportions theorem relating to trade causation and (b) a factor price equalisation theorem relating to the pricing of factors of production in an open economy. Briefly summarised, the rationale of each part of the theory is as follows:

(a) The Factor Proportions Theorem: the explanation for comparative advantage. The H-O analysis establishes that comparative advantage is determined by the absolute distribution of resources as between countries and particularly by the relative factor endowment ratios within countries. Given inter-alia that relative factor endowment ratios differ and that different factor intensities are assumed to underlie the production functions of the traded goods, the conclusion is drawn that an economy's exports will embody intensively that country's relatively abundant factor and that imports will embody intensively the factor that is domestically relatively scarce. Trade flows are therefore presumed to be intimately related to inter-country differentials in the relative composition of productive resources. (b) The Factor Price Equalisation theorem: a price theory explicitly defines the nature of equilibrium in
the factor market. Equilibrium requires not only that the prices of the commodity outputs be equalized but also, under certain restrictive assumptions, the international equalisation of factor (input) prices.

Thus H-O theory provides a complete answer to the question what is the minimum difference between countries which would be sufficient to explain the existence of trade, namely are difference in the relative endowment of factors between countries.

THE EMPIRICAL RELEVANCE OF THE HECKSCHER - OHLIN THEOREM: THE LEONTIEF PARADOX: The above was the theoretical foundation of the Heckscher - Ohlin theory, but the most interesting empirical test of the Heckscher Ohlin theory that has been made so far is a study undertaken by Wassily Leontief in the early 1950s. To perform his test, Leontief used the 1947 input output table of the US economy, and observed that US export industries use relatively more labour than do import competing industries. Hence the United States exports labour intensive goods and imports capital intensive goods.

Leontief was criticized by Valavanis - Vail, Ellsworth,
Swerling, Buchanan and Diab on methodological and statistical background. However, Leontief refined his measurements, and found that US import replacements were still more capital intensive relative to US export, even though their capital intensity over US exports was reduced to only 6 percent. Baldwin, (1971) in a more recent test, using the 1958 US production structure but the 1962 composition of US exports and imports, found that the US import competing sector was 27 percent more capital intensive relative to the US export sector.

Leontief methodology was used by a number of economists to study the trade pattern of other countries as well. Other paradoxes were revealed with respect to Japanese, Indian and Canadian trade patterns. (Bhagwati 1965). Thus Taemoto and Ichimura (1959) studied Japan's trade pattern and discovered another paradox: Japan a labour abundant country exports capital intensive and imports labour intensive, commodities. They argued that Japan may be expected to have a comparative advantage in labour intensive commodities when trading with the advanced countries and in capital intensive commodities when trading with the underdeveloped countries. Finally Bhardwaj (1962a) studied India's trade pattern and found that Indian exports are
labour intensive relative to Indian imports. This is, of course, apparently consistent with the Heckscher-Ohlin hypothesis. Nevertheless, when Bhardwaj (1962b) considered the Indian trade with the US, he found that Indian exports to the US are capital intensive relative to Indian imports from the United States.

Leontief was criticized because he took only one country into account. He only computed factor requirements for marginal change in the production of American exports and imports competing goods. Here B.S. Minhas study is relevant to quote. Minhas finds that factor reversal are quite common because the elasticity of substitution differs between industries, and that these factor reversal occur in the empirically relevant range of relative factor prices (i.e. factor/price ratios prevailing in such diverse countries as the United States and India). This result would tend to reinforce theoretical possibility of factor reversals as an explanation of the Leontief paradox and also tend to minimize the practical relevance of the factor price equalization theorem and the Heckscher-Ohlin theorem.

However Leontief Paradox proves a watershed in international trade theorising. The apparent malfunctioning
of the Heckscher-Ohlin theory caused theorists to be less reverential and inhibited. It was realised that the admission of cross-country differences in production functions must be supplemented by information about the manner in which differences manifest themselves. This resulted in much innovative activity and a plethora of more empirically directed propositions concerning the impetus behind particular trade flows and patterns. The main contention of these propositions is to highlight the technological superiority and product cycle as main determinants of trade flows.

THE KRAVIS "AVAILABILITY" THESIS: Kravis advanced the idea that a substantial part of international trade was an exchange between goods available in one or a few nations but not in others. With respect to "availability", he referred to two main types of goods; goods "not available" in the absolute sense; and goods where for reasons of high domestic inelasticity of supply an increase in output can be achieved only at a high cost.

With respect to technological progress, availability is paramount because of the stimulus to exports which it provides, the advantages that flow from the possession of
the newest products and of the most recent improvements on all kinds of goods. Benefits materialise from this because "demonstration effect" may be expected to create an almost instantaneous demand abroad for new products. Thus, a country's export industries are likely to embody higher rates of technical progress than the same industries in its trading-partner countries.

A further reason put forward by Kravis to support his availability explanation of trade flows is that in the real world free trade is abused, as government controls and cartels tend to shut out imports that could be produced at home even at a slightly higher cost, with the result that imports may be confined to goods unavailable only at formidable costs.

LINDER'S "DEMAND" THEORY: Linder basic contention is that the range of exportable products is determined by internal demand. It is a necessary, but not a sufficient, condition that a product be consumed (or invested) in the home country for this product to be a potential export product.

Linder argues that internal demand determines which
products may be imported. The more similar the demand structure of two countries, the more as a country grows and its per capita income increases, the demand structure of that country will change. As a consequence, the range of potential - and thus also actual - exports will change. This will introduce an element of gradual change in the pattern of specialisation.

In general, he suggests that apart from the constraining forces in trade, (distance, transport costs and man-made obstacles), the volume of trade will be greater the larger and similar the per capita income of the trading countries, and the greater and overlap in the commodity composition of the potential export range of any pair or group of countries. Thus "relative factor proportions, to the extent they influence relative commodity price structures at all, need not be reckoned with in respect to goods outside the overlapping demands.

NEO-TECHNOLOGY AND PRODUCT CYCLE EXPLANATIONS: The analysis of technological superiority as source of trade, first put forward by Posner, argues that as technical changes do not occur simultaneously in all countries, transient advantages will occur in technically advanced
countries that per-se are a cause of trade. Both the ability to produce superior products and the possession of superior production technology constitute sources of comparative advantage in trade additional or alternative to that based on relative factor abundance.

The standard H-O model leaves largely unanalysed both the possibility that differences in real (absolute) factor prices resulting from technological differences would promote the diffusion of technology among countries, with consequent changes in comparative advantage and trade patterns; and the possibility that the same influences would promote the international migration of factors of production, with effects on the distribution of factors of production and of economic activity among countries and/or among geographical regions.

The analysis of technological superiority as a source of trade, put forward by Posner was followed up by Hufbauer and became entangled with economies-of-scale factors, concomitant with related theories of product-cycle by Vernon and others. Hufbauer conceptualized a distinction between 'technological gap' trade as the aboriginal source and 'low-wage' trade, which later developed with the gradual
international transfer by export or imitation of the new produce/process to countries where they can be applied more cheaply than in their country of origin. However, no explanation was attempted as to why such innovations occur in some countries rather than in others, and the explanation ignored other possible reasons for the diffusion of production from technically advanced to less-developed countries, such as the availability of relatively low capital costs or the need to have access to a large protected market. The gap was partially filled by product-cycle and economies-of-scale models.

Vernon suggested a three-stage cycle: the new product, the maturing product and the standardised product. He generally supports Linder's view that new products will tend to be produced first within the national economy for which it was designed inter alia due to close contact with consumers, and suppliers of inputs barriers to international trade. He posits an inter-country transfer of specialisation, such that production occurs in the first stage in a developed country and is subsequently transferred to a less-developed country (LDCs) at the third stage. Stage one is centred on a developed country for the reasons already stated and because, on the demand side, high unit labour
costs are an incentive for labour-saving investment goods and high incomes involve sophisticated and differentiated consumer products; and on the supply side, the research and development costs of new products is high, and developed countries have a relatively large endowment of the skilled labour required (scientists, engineers, etc.). Stage II gives rise to a transfer to other LDCs as the process becomes more standardised. The standardised product in Stage III is for LDCs since assembly line production requires fairly unskilled labour.

The main contention of above formulations is that countries pass through different phases in regard to technological levels, product-diversification and product differentiation etc. Those countries which have started early in the manufacture of new goods with differential characteristics, can have advantage in exporting them while those which lag behind, have to take up only standardised goods for exports. This special advantage of the innovators and leaders determines the pattern of trade. Thus, the different formulations of new-technology school highlight the importance of the technology factor as a determinant of trade flows.
Fundamental departure from the premises of the factor proportions and neo-technology school is to be found in the formulation of Revealed Comparative Advantage (RCA) presented by Bela Blassa. (1965). RCA approach is the first attempt to recognise explicitly that the trade flows are the final effects of a multiplicity of factors and that the pattern of comparative advantage of a country cannot be identified well by examining only one or two determinants of trade flows but by the analysing the observed trade flows in totality. Based on the concept of revealed preference in value theory, it is suggested that observed trade flows of a country among a group of countries should be used to construct indices of revealed comparative advantage.

Though the approach does not provide any generalised theory of trade behaviour, it makes a significant contribution by pointing out that the world is replete with various types of heterogeneities, distortionary and discriminatory policies and as such the factor proportion theory or any such proposition based on partial indices in a simplified framework of assumptions cannot provide adequate guidelines to understand the reality.

Added to this, recent contributions of new concepts
such as effective rate of protection (ERP) and domestic resource cost (DRC) have emerged largely in the context of analysing the effects of trade policies on the domestic production activities and the trade flows.

A CRITICAL REVIEW: The brief account of the different theories of determinants of trade discussed in the previous sections brings out two basic features common to almost all of them: (i) Each theory provides only a partial truth. There is no attempt to identify the relative importance of the different determinants of trade behaviour. In the real world where several assumption of the factor proportions theory, for instance, do not hold good, it would be useful to know whether distortions introduced by tariffs, subsidies and trade policies in general are stronger determinants of trade behaviour than factor-proportions and factor endowments. Such questions are left out of the preview of these theories. (ii) Many features relevant to the institutional framework of the developing countries are not included in them. In view of these limitations, the theories have less operational value to the developing countries. Thus the need of a unified trade theory for developing countries becomes obvious which includes various specific aspects of the trade activity in the developing
country such as planning strategy institutional structure, market imperfections etc.

**STRATEGY OF PLANNING:** The level and commodity composition of the exports and imports of developing countries are closely related to the development strategy adopted by the planning authority of the country. Trade activity cannot, therefore, be viewed in isolation from the process of over-all planning for allocation of resources. In developing countries, planning has several objectives some of which are based on purely economic considerations while others are prompted by sociological factors and/or political pressures. It is planning which implies deliberate effort on the part of the planner to generate resources and allocate them in a desired manner, the choice of the commodities for import-substitution, imports and exports depends upon the strategy of planning adopted by the planner. Hence, the process of planning, the objectives of planning and trade-activity should be considered simultaneously in the explanation of the latter.

**INSTITUTIONAL STRUCTURE:** Analysis of the trade flows for developing countries cannot be meaningful unless the aspects of the institutional structures of the economy
are explicitly introduced in it. In developing countries, socio-political-cum-cultural institutions of different background and objectives are present. They influence the attitudes and decisions of the various decision-making entities. For example, agriculture may not be modernised because farmers are not open-minded to receive the new methods of cultivation. The quality of "export-consciousness" may not be present among the people who have, for several decades, developed the habit of inward-orientation. Further, it is obvious that availability of perfect institutional network to disseminate information of new techniques, market demand-patterns, changes in tastes, credit facilities, and deal with procedural matters with the government etc. goes a long way in determining the nature and pattern of the exports and the imports.

HETEROGENOUS FACTORS: The third feature of the developing economies to be built into the trade theory, pertains to the lack of homogeneity in the factors and products entering trade and the quality problem. Invariably, an import-substitute and an imported good differ in their quality-aspects. An exportable product may be different from a similar commodity supplied by a developed
Associated with this are the advantages of the established brand names, patents, etc., and the attitudes of the people of the developing countries to prefer the imported goods to the local products even when the two goods are comparable in quality. Thus quality differences in products, either real or apparent, induce trade flows independently of the cost considerations.

**Market Imperfections:** The fourth aspect is the common phenomenon of market-imperfections. In most developing economies, government plays a significant role as an investor and also as a catalyst for the investment activities of the private sector. Adoption of policies of "import-restrictions", "industrial-licensing", "export-subsidies" etc., by the government which generally create many distorted effects in the economy. For instance, government may impose import restrictions on the import of certain commodity, but in the protected domestic market the import license would now carry huge scarcity premia with the result that the person possessing the import license would realise more profits than similar domestic producers, as there is generally craze for imported goods. Which may develop a parallel black market for import licenses by all possible methods.
GOVERNMENT POLICIES: Related to the factor stated above is the more general aspect of the various policies adopted by the government. Policies of import-restrictions, exchange, controls etc., often encourage domestic production of import-substitutes at high costs and thus distort the pattern of import-flows. Similarly, export-subsidies-explicit or implicit—may enable the country to export a wide range of products. Complex policy system may contain mutually inconsistent set of policies and the government may not be aware of the "final effect" of these policies. Further, the pressures of the various shades of political thoughts and ideologies (in a democratic set up), the influence of vested interests, the pressures due to considerations such as regional balance, external prestige; defence needs etc., would have significant effects on the choice of policies by the government and consequently on the pattern of trade flows.

Trade vs. aid is another issue of vicious nature. Trade influences the magnitude of aid requirement while the aid inflow, has also significant effect on the nature and pattern of trade. The effect of "tied aid", bilateral aid, arrangement for domestic currency payments etc. seem to undermine the role of cost-aspects of determinants of trade
flows. Added to this are the aspects of established trade relations, bilateral trade agreements, regional trade blocks which influence the nature of the trade flows. Further, multinational corporations, private foreign investments, trade in know-how and skills, also influence the trade patterns.

Thus, it is pertinent to consider the above mentioned factors to determine the trade behaviour of a country and for a sound analysis of trade flows among the developing countries.