INTERNATIONAL TRADE & ECONOMICS LAW: THEORIES OF INTERNATIONAL TRADE AND ECONOMICS

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INTRODUCTION:

The history of International Trade and Economics speaks of the three most basic and important domains, namely; Goods, Services, and Intellectual Property. Initially, trade was carried out by the '*Barter System'* method in order to carry out trade of goods between various Nations. However, with the passage of time and development in various sectors, the rise of materialistic needs of the various Nations has led to International Relations and thus resulted in International Trade Practices. For example, one may consider the import of cotton into the European Union. The rise of materialistic needs and the inability to satisfy the same by themselves on account of various geographic and climatic conditions ultimately resulted in the import of cotton into the European Union. Early on, the Countries, strived for "*Economic Independence"* but this led to wars and thus over time, and with experience, the Nations realized that in order to reduce the chances of occurrence of wars they needed to establish a system of "*Economic Dependence"* between Nations. The former system, was recognized by scholars like Adam Smith post World War-II which acted as the catalyst in bringing about the change. Thus began the propounding of various theories by the various scholars which was vital to the conception of what we know today of International Trade and Economics. The theories of International Trade can be broadly classified into; Mercantilist view, Classical theories of trade, Modern theory of trade and lastly, the New theories of Trade.

MERCANTILISM:

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It was only after the publication of The Wealth of Nations by Adam Smith in 1776, the subject of economics emerged in an organized scientific form. Prior to that during the 17th & 18th centuries in Europe a group of men – like merchants, bankers, traders, government officials and philosophers, wrote essays and pamphlets on international trade that advocated an economic philosophy known as mercantilism. The term mercantilism first acquired significance at the hands of Adam Smith. Mercantilism, as the term implies is closely associated with trade and commercial activities of an economy. Mercantilist theory was highly nationalistic in its outlook and favored state regulation and centralization of economic activities including foreign trade. The mercantilists believed that a nation's wealth and prosperity is reflected in its stock of precious metals, namely, gold and silver. At that time, as gold and silver were the currency of trade between nations, a country could accumulate gold and silver by exporting more and importing less. The more gold and silver a nation had the richer and more powerful it was. They argued that government should do everything possible to *maximize exports* and *minimize imports*. However, since all nations could not simultaneously have an export surplus and the amount of gold and silver was limited at any particular point of time, one nation could gain only at the expense of other nations. In other words, mercantilists believed that trade was a zero sum game (i.e. one's gain is the loss of another). For mercantilists, the objective of foreign trade was considered to be achievement of surplus in the balance of payments. Hence, they advocated achieving as high trade surplus as possible. In this context, Blaug (1978) points out that – "The core of mercantilism, of course, is the doctrine that a favorable balance of trade is desirable because it is somehow productive of national prosperity…. When mercantilist authors speak of the surplus in the balance of trade, they mean an excess of exports, both visible and invisible, over imports, calling either for an inflow of gold or for granting of credit to foreign countries, that is capital exports. In other words, they were roughly thinking of what we would now call 'the current account' as distinct from 'the capital account' in the balance of payments." The mercantilist ideas were strongly criticized in the 18th century by economists like David Hume, Adam Smith and David Ricardo. For instance, Adam Smith criticized mercantilists on the ground that the mercantilists falsely equated money with capital and the favorable balance of trade with the annual balance of income over consumption. Thus, Blaug (1978) critically points out that - "The idea that an export surplus is the index of economic welfare may be described as the basic fallacy that runs through the whole of the mercantilist literature." Another flaw of mercantilism is that it they viewed trade as a zero sum game. This view was challenged by Adam Smith and David Ricardo who demonstrated that trade was a positive sum game in which all trading nations can gain even if some benefit more than others. From the above analysis it is seen that the concept of balance of payments or balance of trade was evolved for the first time in the writings of mercantilists. As pointed out earlier, at that time economics was not yet developed in an organized form, so the concept of balance of payments / balance of trade was evolved in a vague form. In spite of various flaws in the ideology, due credit may be given to the mercantilist writers in the development of the concept of balance of payments / balance of trade.

Three Basic Issues of International Trade It is to be noted that mercantilists failed to address three relevant issues of international trade which are;

1) **Gains from trade –** The first important issue are about the gains from trade. Do countries gain from international trade? Where do the gains come from, and how are they divided among the trading countries?

2) **Structure of trade –** The second relevant issue is the structure or direction or pattern of international trade. In other words, which goods are exported and which are imported by each trading country? What are the fundamental laws that govern the international allocation of resources and the flow of trade?

3) **Terms of trade –** The third relevant issue is the terms of trade. In other words, at what prices are the exported and imported goods exchanged?

CLASSICAL THEORIES OF INTERNATIONAL TRADE:

It was the classical economists like Adam Smith, David Ricardo, Robert Torrens and John Stuart Mill, who explained these three issues through their theories which can be grouped under classical theories of international trade.

Absolute Cost Advantage Theory

It was Adam Smith who emphasized the importance of free trade in increasing wealth of all trading nations. According to Adam Smith, mutually beneficial trade is based on the principle of *absolute advantage*. His theory is based on the assumptions that there are two countries, two commodities and one factor (labour) of production. Adam Smith's theory is based on labour theory of value, which asserts that labour is the only factor of production and that in a closed economy goods exchange for one another according to the relative amounts of labour they embody. The principle of absolute cost advantage points that a country will specialize and export a commodity of which it has an absolute cost advantage.

Comparative Cost Advantage Theory

According to Ricardo, it is not the absolute but the *comparative differences in costs* that determine trade relations between two countries. The comparative cost theory was first systematically formulated by the English economist David Ricardo in his Principles of Political Economy and Taxation published in 1817. It was later refined by J. S. Mill, Marshall, Tausig and others. According to Ricardo, differences in comparative costs form the basis of international trade. The law of comparative advantage indicates that each country will specialize in the production of those commodities in which it has the greatest comparative advantage or the least comparative disadvantage. *Thus, a country will export those commodities in which its comparative advantage is the greatest and import those commodities in which its comparative disadvantage is the least.*

Evaluation of the Comparative Cost Theory

The comparative cost doctrine is not complete in itself. It has been severely criticized by economists due to its unrealistic assumptions. Prof. Bertil Ohlin critically pointed out that the principle of comparative advantage is not applicable to international trade alone; rather it is applicable to all trade. Furthermore, the theory does not explain why there are differences in costs. Ricardo's theory of comparative advantage did not explain the ratios at which the two commodities would be exchanged for one another. In other words, it does not indicate what the terms of trade are. It was J. S. Mill who discussed this issue in detail his theory of reciprocal demand. The term *'reciprocal demand'* indicates a country's demand for one commodity in terms of the quantities of the other commodity which it is prepared to give up in exchange. Thus, it is the reciprocal demand that determines the terms of trade which, in turn, determines the relative share of each country. Equilibrium would be established at that ratio of exchange between the two commodities at which quantities demanded by each country of the commodity which it imports from the other, should be exactly sufficient to pay for one another. Mill's theory of reciprocal demand relates to the possible terms of trade at which the two commodities will exchange for each other between the two countries. The terms of trade here refer to '*the barter terms of trade'* between the two countries i.e. the ratio of the quantity of imports for a given quantity of exports of a country. The Ricardian theory, though based on a number of wrong assumptions, is regarded as an important landmark in the development of the theory of international trade.

MODERN THEORY OF INTERNATIONAL TRADE:

One of the main drawbacks of Ricardian theory of comparative cost was that it did not explain why differences in comparative costs exist. In 1919, Eli Heckscher propounded the idea that trade results from differences in factor endowments in different countries. The idea was further carried forward and developed by Ohlin in 1933 in his famous book *Inter-regional and International Trade*. This book forms the basis for what is known as Heckscher – Ohlin theory or modern theory of international trade.

Heckscher – Ohlin Theory

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The Heckscher – Ohlin theory is based on most of the assumptions of the classical theories of international trade and leads to the development of two important theorems –

(a) Heckscher – Ohlin theorem and

(b) Factor price equalization theorem.

Heckscher & Ohlin have explained the basis of international trade in terms of factor endowments. According to Heckscher & Ohlin, regions or countries have different factor endowments. It means that some countries are rich in capital while some are rich in labour. In their theory, the concept of factor endowments or factor abundance is used in relative terms and not in absolute terms. Moreover, they have defined the concept of factor endowment or factor abundance in terms of two criteria (a) Price criterion and (b) Physical criterion.

(a) Price criterion - As per price criterion, a country is said to be capital abundant if the ratio of price of capital to the price of labour (PK / PL) is lower as compared to the other country. This criterion considers both demand for and supply of factors.

(b) Physical criterion – As per physical criterion, a country is said to be capital abundant if the ratio of the total amount of capital to the total amount of labour (K/L) is greater as compared to other country. This criterion considers only supply of factors. On the basis of above criterion the Heckscher – Ohlin theorem states that – " *A nation will export the commodity whose production requires the intensive use of the nation's relatively abundant and cheap factor* and *import the commodity whose production requires the intensive use of the nation's relatively scarce and expensive factor ."* In other words, the countries in which capital is cheap & abundant will export capital - intensive goods and import labour – intensive goods. On the contrary, the countries in which labour is cheap & abundant will export labour – intensive goods and import capital-intensive goods. Thus, for them it is the differences in factor intensities in the production of goods along with actual differences in factor endowments of the countries which explain international differences in comparative costs of production.

The Heckscher –Ohlin theory further leads to the development of *factor price equalization theorem*. The factor price equalization theorem indicates that free international trade will ultimately lead to equalization of commodity prices and factor prices. Economists Paul Samuelson & Wolfgang Stolper have further contributed to this theory and have formed Stolper – Samuelson theorem.[1] Stolper –Samuelson theorem explains the effect of change in relative product prices on factor allocation and income distribution. It postulates that an increase in the relative price of a commodity raises the return or earnings of the factor used intensively in the production of that commodity. In other words, an increase in the relative price of labour intensive commodity will increase wages. Similarly, an increase in the relative price of capital intensive commodity will increase the price of capital. This implies that free trade would raise the returns to the abundant factor and reduce the returns to the scarce factor.

Evaluation of Heckscher – Ohlin Theory

It is clear from the above that the Heckscher – Ohlin theory [2] is superior to Ricardian theory. It accepts comparative advantage as the cause of international trade and explains the reasons behind the differences in comparative cost. Thus, it supplements the Ricardian theory of comparative cost. However, one of the limitations of H-O theory is that it is based on *static model of given factor endowments and given technology*.

NEW THEORIES OF INTERNATIONAL TRADE:

It is observed that the Ricardian theory and H-O theory provided good explanations of trade theory till the first half of the 20th century. However, in due course many researchers observed that comparative advantage seemed to be less relevant in the modern world. Economists now believe that the traditional trade theories (i.e. Ricardian theory and H-O theory) fail to provide a complete

[1] *Stolper W. F. & Samuelson P. A. (1941) – "Protection & Real Wages" – Review of Economic Studies, Vol. 9, No. 1, pp. 58 -73.*
[2] *Hereinafter, H-O theory.*

explanation of the structure of the world trade. The world trade data now contains several empirical regularities or stylized facts that appear to be inconsistent with the traditional theories. Thus, the assumptions of H- O theory like – perfect competition, constant returns to scale, and same technology are invalid in today's context of world trade. Hence, economists have modified H-O theory by relaxing most of its assumptions and have developed new trade theories or complementary trade theories. These new theories are based on economies of scale, imperfect competition, and differences in technology among nations.

The new theories can be broadly categorized into three types –

(1) Neo – technological trade theories

(2) Intra-industry trade models

(3) Strategic trade policy models.

Neo – Technological Trade Theories

The neo-technological trade theories emphasize the importance of technological innovation and the technological gap across firms and countries as a major source of international trade. The main theories are as follows:

(a) **Kravis' Theory of Availability** – In the Kravis' (1956) [3] model, technological innovation as a basis of trade operates through his product availability hypothesis. The availability approach seeks to explain the pattern of trade in terms of domestic availability and non-availability of goods. Availability influences trade through demand and supply forces. According to him, a country produces and exports those goods which are *'available'*, that is, goods developed by its entrepreneurs and innovators. By availability he means an elastic supply. In short, as per Kravis'

[3] *Kravis I. B. (1956) – "Availability & Other Influences on the Commodities Composition of Trade"– Journal of Political Economy, Vol. LXIV, April, pp. 143 – 155.*

theory of availability, international trade takes place because of differences in the availability of certain products among countries.

(b) **Linder's Theory of Volume of Trade and Demand Pattern** – Linder (1961)[4] in his theory gave importance to demand side factors like similarity in income levels across nations and income distribution characteristics in determining pattern of trade. As per this theory, international trade takes place between those countries which have similar income levels and demand patterns. Thus, Linder's theory explains the reasons for large volume of trade in manufacturers among developed countries. The theory highlights the fact that the lion's share of world trade is among the developed countries with broadly similar per-capita incomes rather than between the developed and underdeveloped countries.

(c) **Posner's Imitation Gap or Technological Gap Theory** – M.V.Posner (1961) [5] analyzed the effect of technology on trade. He regards technological changes as a continuous process which influences the pattern of international trade. The model is based on the assumption that trading countries have similar factor endowments and identical production functions for established products. But, the technology is different between the trading countries. This difference in the technology leads to introduction of new products and new production processes by a firm in a country. As a result, an innovating firm which creates a new product might acquire a temporary comparative advantage in the exports of its products to other countries. This comparative advantage could be called as '*technology gap*'. To conclude, the technological gap theory is more realistic than the traditional theories because it analyses the effect of technical changes on the pattern of international trade.

(d) **Vernon's Product Cycle Theory** – Vernon (1966)[6] has put forth the product cycle hypothesis. Vernon's model is a generalization and extension of the technological gap model. It states that the development of a new product moves through a cycle or a series of stages in the course of its

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[4] *Linder S. B. (1961) – An Essay on Trade & Transformation - New York, John Wiley.*

[5] *Posner M. V. (1961) – "International trade & Technical change" – Oxford Economic Papers, Vol. 13, No. 3, pp. 323 - 341.*

[6] *Vernon R. (1966) – "International Investment & International Trade in the Product Cycle" - Quarterly Journal of Economics, Vol. 80, No. 2, pp. 190 – 207.*

development, and its comparative advantage changes as it moves through the cycle. As a new product passes through different stages in a domestic market, in the similar way it passes through different stages in the international market. Generally, a product passes through the three stages during its life time. These stages are - (a) New product stage, (b) Maturing product stage and (c) Standardized product stage. To conclude, we can say that the Posner's technological model stresses the time lag in the imitation process, while Vernon's product cycle model stresses the standardization process. Both the models, try to explain dynamic comparative advantage for new products and new production processes, as opposed to the basic H-O model which explains static comparative advantage.

Intra – Industry Trade Models

Intra – industry trade refers to trade between identical countries which are exporting & importing similar but differentiated products. The intra- industry trade models developed after 1970s take into account firm level internal economies of scale and product differentiation in explaining trade between identical economies. In the late 1970s, several researchers like - Krugman, Dixit & Norman, Lancaster etc. independently formalized the idea that economies of scale and imperfect competition can give rise to trade even in the absence of comparative advantage. It was the Grubel & Lloyd's (1975)[7] study which formed the basis for the development of intra-industry trade models. They found that international trade was maximum between identical (capital abundant) developed countries, and these countries, exported and imported similar but differentiated products. It was Krugman (1979) who formalized it into a systematic general equilibrium model by taking Dixit & Stiglitz's (1977)[8] general equilibrium theory of monopolistic competition for the first time. The main intra –industry models are as follows: (1) **Krugman's Model**

[7] *Grubel H. & Lloyd P. (1975) – Intra – Industry Trade: The Theory and Measurement of International Trade in Differentiated Products- London, Macmillan.*

[8] *Dixit A. K. & Stiglitz J. (1977) – "Monopolistic competition & Optimum Product Variety" – American Economic Review, Vol. 67, No. 3, pp. 297 -308.*

(1979)[9]– Paul Krugman's model marks a distinctive and realistic departure from the traditional models because it recognizes the role of economies of scale and monopolistic competition in international trade. Krugman in his model points out that trade is possible between the two countries having identical tastes, technology, factor endowments & income levels, because of product differentiation and internal economies of scale in production. Thus, the sources of trade between identical economies lies in product differentiation and internal economies of scale in production of manufactured goods under a monopolistic competitive framework. The implications of his model are as follows; (a) Trade increases the choice of goods available to consumers and thereby improves consumer welfare. (b) Trade can cause an increase in demand, production and real income, facilitated by economies of scale.

(2) **Brander – Krugman Model (1983)**[10] – The Brander- Krugman model of intra-industry trade is based on oligopolistic competition. This model considers the application of the concept of dumping in international trade. The Brander- Krugman model considers a situation in which two firms of two countries resort to dumping in each other's domestic market. Hence, their model is also known as *reciprocal dumping model.* Dumping in the context of international trade means a practice in which a firm sells its products in foreign market at a price much lower than its domestic price. The situation in which dumping leads to a two way trade in the same product is known as reciprocal dumping. The possibility of dumping in international trade was first noted by Brander (1981)[11] and then extended by Brander & Krugman (1983). The Brander- Krugman model suggests that with the opening up of trade the monopoly situation turns into a duopolistic market structure, which is a form of oligopolistic competition. Thus, their reciprocal dumping model explains the intra-industry trade in homogenous products under oligopolistic competition. However, the model fails to explain the net effect of such peculiar trade on a nation's economic welfare.

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[9] *Krugman Paul R. (1979) – "Increasing Returns, Monopolistic Competition and International Trade "– Journal of International Economics, Vol. 9, No. 4, pp. 469 - 479.*

[10] *Brander James & Krugman Paul (1983)- "A Reciprocal Dumping Model of International Trade "– Journal Of International Economics, Vol. 16, Nos. 3 – 4, pp. 313 – 321.*

[11] *Brander James (1981) –" Intra-Industry Trade in Identical Commodities" – Journal of International Economics, Vol. 11, No. 1, pp. 1 – 14.*

Strategic Trade Policy Models- The strategic trade policy models provide certain theoretical justification for policy intervention such as home market protection and export subsidies towards increasing exports and national welfare. In the broader sense, the strategic trade policy models are an extension of intraindustry trade models. These models are developed in a partial equilibrium framework by assuming oligopolistic competition. The basis of these models lies in the trade war between industrialized countries such as United States, Japan, and the European Community. Two strategic trade theory models are as follows: (a) Krugman's Model (1984)[12]– Krugman's strategic trade policy model shows that import protection of domestic producers could lead to export promotion. In this model three forms of economies of scale are taken into account - (a) Static internal (to a firm) economies, (b) Economies in Research & Development and investment, (c) Dynamic economies of learning by doing. (b) Brander & Spencer's Model (1985)[13]– Brander & Spencer's model shows that export subsidies could help domestic producers to capture third country markets at the cost of foreign rivals. This is a two stage model in which governments (simultaneously) choose subsidy levels in the first stage and firms (simultaneously) choose output levels in the second stage. There is no domestic consumption in either country. i.e. firms produce only for the third country market. The model assumes foreign firm does not receive export subsidy. An export subsidy to a domestic firm is considered as a reduction in its cost of production. Hence, it becomes profitable for the domestic firm to expand its sale in the third country market, and capture a large market share at the cost of the foreign rival. Briefly, it can be said that the new theories are quite capable of explaining the pattern of world trade today.

CONCLUSION AND ANALYSIS:

The main issues with respect to theories of international trade can be summarized as follows – To begin with "*mercantilists*" view dominated the economic philosophy during 17 & 18th centuries.

[12] *Krugman Paul R. (1984) – "Import Promotion as Export Promotion" in - Henry Kierzkowski (Ed) - Monopolistic Competition and International Trade – Oxford, Oxford University Press.*
[13] *Brander James & Spencer Barbara (1985) – "Export subsidy and International Market share rivalry"– Journal of International Economics, Vol. 18, Nos. 1 – 2, pp. 83 – 100.*

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The mercantilist theory was highly nationalistic in its outlook which favored state regulation and centralization of economic activities. Mercantilists believed that trade is a zero sum game and the objective of foreign trade was to achieve surplus in balance of payments. Hence, the concept of balance of payments or balance of trade was evolved for the first time in the writings of mercantilists. However, they failed to address the issues such as – gains from trade, structure of trade and terms of trade. Adam Smith emphasized the importance of free trade in increasing wealth of all trading nations. His theory of international trade was based on the principle of absolute cost advantage. He advocated a policy of Lassiez -faire. Adam Smith's theory was strongly criticized by David Ricardo and others. It is safe to say that Smith's "*productivity*" doctrine is instructive more in relation to the ideological than to the actual economic forces which characterized the 19th century expansion of international trade to the underdeveloped countries. David Ricardo argued that it is the differences in comparative costs which form the basis of international trade. His theory was based on the principle of comparative cost advantage. According to him, each country will specialize in the production of those commodities in which it has the greatest comparative advantage or the least comparative disadvantage. The credit of developing modern theories of international trade (in early 20th century) goes to the two economist's viz. Eli Heckscher and Bertil Ohlin. Heckscher – Ohlin have explained the basis of international trade in terms of factor endowments. According to them, international trade results from differences in factor endowments in different countries. Thus, according to them, capital rich countries will export capital intensive goods and import labour intensive goods. On the other hand, labour rich countries will export labour intensive goods and import capital intensive goods. The Ricardian theory and Heckscher – Ohlin theory were relevant till the first half of the twentieth century because till that they could satisfactorily explain the pattern of world trade. Later on several economists modified the Heckscher – Ohlin theory by introducing the role of economies of scale, imperfect competition, differences in technology etc. The international trade theories which are developed after 1970s have explained the international trade by considering increasing returns to scale, technological innovation, product differentiation, oligopoly, etc. For instance, Posner's technological gap theory and Vernon's product cycle theory have analyzed the effect of technical changes on the pattern of international trade. Another important development in the theories of international trade in the late

1970s is the development of intra – industry trade models. The intra – industry trade models emphasize that economies of scale and imperfect competition can give rise to trade even in the absence of comparative advantage. Some of the important intra-industry models are developed by Krugman (1979), Brander & Krugman (1983), etc. The strategic trade policy models developed in the second half of 1980s are extension of intra-industry trade models. These models are developed by assuming oligopolistic competition and the basis of these models lies in the trade war between industrialized countries such as United States, Japan & the European Community. Krugman (1984) and Brander & Spencer (1985) have made notable contributions to the strategic trade models. To conclude, over a period of time the development in theories of international trade have gone significant change. The earlier theories (prior to1970s) assumed only two products, two commodities, two factors, two countries, perfect competition, constant returns to scale, constant technology, etc. While the new theories which are developed after 1970s are based on more realistic assumptions like – change in technology, imperfect competition, changing returns to scale, etc. Hence, the new theories which are developed after 1970s and 1980s are quite capable of explaining the pattern of world trade today. Economists like Krugman & Obstfeld have observed that about one – fourth of world trade consists of intra – industry trade. The gains from intra – industry trade are considered to be over and above that from comparative advantage. It is also believed that in future, intra – industry trade will be dominant between countries which have similar level of economic development.

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