

Theories of International Trade: An Overview

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Abstract—Over a period of time the development in theories of international trade have gone significant change. The earlier theories (prior to 1970s) 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.

Keyword: Imperfect Competition, Perfect Competition, Technology, World Trade,

1. INTRODUCTION

As pointed out in the introduction, Balance of payments (BOP) is a systematic record of all economic transactions between the residents of the reporting country and the residents of the rest of the world for a given period of time. It is pertinent to note that international trade theories and policies represent microeconomic aspect of international economics, while balance of payments represents macroeconomic aspect of international economics. Before analyzing the study of balance of payments in detail it is important to know how the concept has evolved in the field of international trade. An insight into various theories of international trade provides a basis for the evolution of the concept of balance of payments. The theories of international trade can be broadly classified into - (I) Mercantilist view (II) Classical theories of trade (III) Modern theory of trade (IV) New Theories of trade.

2. MERCANTILISM

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 (also known as specie), 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.

3. 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 is 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?

4. 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.

5. 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 (labor) of production.

Adam Smith's theory is based on labor theory of value, which asserts that labor is the only factor of production and that in a

closed economy goods exchange for one another according to the relative amounts of labor they embody. The principle of absolute cost advantage points that a country will specialize and export a commodity in which it has an absolute cost advantage.

6. 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, Taussig 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.

7. 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.

8. 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 Bertil 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.

9. HECKSCHER – OHLIN THEORY

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 (P_K / P_L) 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.³ 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.

10. EVALUATION OF HECKSCHER – OHLIN THEORY

It is clear from the above that the Heckscher – Ohlin (hence forth, H-O) theory 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.

11. CONCLUSION

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. The mercantilist theory was highly nationalistic in its outlook which favoured 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 *laissez faire*. Adam Smith’s theory was strongly criticized by David Ricardo and

others. David Ricardo argued that it is the differences in comparative costs which forms 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 economists 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 analysed 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 to 1970s) 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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