

The Development of International Trade Theory

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Keywords: Traditional trade theory; New trade theory; New new trade theory

Abstract: Constant developing of globalization and technology brings much new and complicated international trade practice. International trade theories have been keeping up with those changes. It developed from traditional international trade theory to the new international trade theory and even to the new new international trade theory. The aim of this paper is to comprehensively describe its process, analyze its reason, summarize its law, predict its trend and get some beneficial inspirations.

1. Introduction

International trade theories developed from static to dynamic, from single sector to multi-sector, from supply side to demand side, from perfect competition to imperfect competition, from product homogeneity to product heterogeneity, from constant returns to scale to increasing returns to scale, from firm homogeneity to firm heterogeneity, from single industry to national system, from macro to micro, from theoretical logic to empirical study. This is a process of gradually relaxing hypothesis to solve practice problems. Every progress is a dialectical negation of the past and continuous "sublation".

2. Traditional Trade Theory

2.1. Mercantilism.

Mercantilism was developed to justify the primitive accumulation of Western European capital in the 15th-18th centuries, whose main part is about international trade theory. This theory represents the interests of commercial bourgeoisie. Mercantilism is divided into two phases: early mercantilism and late mercantilism. Early mercantilism originated in the 15th to the middle of 16th centuries, centered on currency balance theory, advocating implementation of administrative measures to ban currency exports and oppose commodity import, trying to keep each transaction a trade surplus. The representative was William Stafford from United Kingdom. The second half of the 16th century to the 17th century was the second phase of mercantilism, namely, late mercantilism. The central idea was trade balance theory, and the representative figure was Thomas Meng. In this period, it is acceptable to not keep each deal a trade surplus. They concern the total trade surplus and allow the currency to flow out to bring in more money. It can be seen from this that mercantilism regard international trade as a zero-sum game.

2.2. Absolute Advantage.

On behalf of the industrial bourgeoisie, Adam Smith opposed the mercantilism in his masterpiece "The Study of the Nature and Causes of National Wealth" (referred to as "The Wealth of Nations") written in 1776, demanding laissez-faire and proposing absolute advantage theory systematically. Adam Smith suggested that division of labor, based on absolute advantage of each country, can promote efficiency, and the absolute advantage comes from factor endowment and acquired learning. The fact that each country specializes in the production of goods with absolute advantage and then exchange each other to gain the goods in absolute disadvantage will increase the welfare of both countries. Adam Smith demonstrated that international trade will lead to a win-win results, thus promoting the development of free trade. However, he did not explain why the countries where

all commodities are in absolute disadvantage should trade. International trade theory needs further developing.

2.3. Comparative Advantage.

David Ricardo proposed a comparative advantage theory in his masterpiece "Political Economics and Taxation Principles", saying that specialization should base on comparative advantage, which comes from the difference in productivity of various countries. It is summarized as "choose the least of two evils, and the best of two options". A country has comparative advantage means that the opportunity cost of producing one product in the country is less than the other country producing the same product. If a country's products are all absolute advantageous to another country, then the country should specialize in producing the most advantageous products, and the other country produce the least disadvantageous products, and then international trade between them will increase the welfare of both countries. This theory shows that any country can gain profits by trade.

2.4. Protective Theory.

According to the actual condition of Germany, the German economist Liszt put forward the protective theory of infant industry, in which productivity theory is the core, the classification of economic developing stages is the main content, the protective tariffs are the means and the infant industries are the objects of protection. It is believed that a country should conduct protective trade policy to secure valuable time for some domestic firms to grow when they are emerging, promising but weak while free trade policy is preferred when they have strong international competitiveness. This theory marks the formation of protective theory. Since then two major schools of trade theories -free trade and protective trade theories- have formed.

2.5. H-O Theory.

Heckscher-Ohlin Theory, also known as Factor Proportion Theory. It explained that the root of comparative advantage lies in the different factor endowments of countries. The main content is that the relative price discrepancy of each country's goods is the direct cause of international trade. Specially, the relative price of goods depends on the prices of the factors inputted and the relative price of the factors results from the factors endowment of each country. According to this model, a country should export commodities with intensive factors endowment, and import ones with scarce factors endowment. Moreover, Samuelson believed that the flow of goods partially replaces the flow of factors, so the equalization of factor prices would eventually be achieved.

The United States, which has a high intensity of capital factors, should export capital-intensive goods and import labor-intensive goods according to H-O theory. However, by using the input-output method, Leontief found that the capital intensity of US imported substitutes is greater than that of exported commodities. Contrary to the H-O theory, this is called paradox of Leontief. Later, there were a series of explanations for the paradox, such as natural resources theory, human capital theory, factor intensity reversal theory, and trade barriers theory, etc. Those, to some extent, complement and improve the H-O theory.

3. New Trade Theory

3.1. Intra-Industry Trade Theory.

The traditional international trade theories provide a good theoretical explanation for inter-industry trade, but it cannot explain the trade phenomenon between similar developed countries, such as Japan's export of cars to the United States and the import of cars from the United States. Comparative advantage cannot account for this phenomenon. Intra-industry trade theory came into being.

The main causes of intra-industry trade

First, product differentiation. Product differentiation has become a country's non-price competitive advantage. It is divided into horizontal product differentiation such as color, size, and vertical one, such as quality. Product differentiation is one of the reasons for intra-industry trade.

Second, economies of scale. Economies of scale has two types: internal economies of scale and external economies of scale. The former means that production costs decrease as the size of the company expands. The latter means that production costs decrease as the belonged industry expands. Because the expansion of the industry will produce professional suppliers, information spillovers, and labor sharing. It is impossible for a country to produce all commodities, it only specializes in one or several products to achieve economies of scale, and then trade with others to meet the diversity of consumption.

Third, the similarity of consumer preferences. The Swiss economist Linde believed that the closer the income levels and structures among countries, the more similar the consumers' preferences. So the overlapping demands underlie the market expansion from domestic to global. And this explains the intra-industry trade from the demand side.

3.2. Product Life Cycle Theory.

The product life cycle theory is proposed by Fei Nong. He believes that products also have longevity, just like human life. The products have a research and development period, growth period, maturity period, sales decline period, and quitting period. Different countries are at different periods for their different technologies, which will bring a dynamic comparative advantage, thus forming trade among them.

3.3. Technological Gaps Theory.

Industrial trade in industrialized countries is caused by technological gaps. All countries can generally be classified into two types: innovation countries and imitation countries. At the beginning, the innovation countries which are in an advantageous position export to imitation countries. However, for technical cooperation, patent transfer, etc., the technology has flowed abroad, and the imitation countries have slowly mastered the production methods to carry out mass production. Products are reduced from R&D-intensive, capital-intensive to labor-intensive, comparative advantages shifting to imitation countries, and finally, trade pattern changes.

3.4. The Theory of Competitive Advantage of Nations.

Michael Porter's national competitive advantage theory (known as the 'diamond model'), holds that a country's competitive advantage comes from six aspects: production factors, demand condition, related supported industries, firms and organizations, strategy and competition, as well as opportunities and government. He believed that a country went through four phases: factor-driven phase, investment-driven phase, innovation-driven phase, and wealth-driven phase. This theory explains a country's comparative advantage from the national level.

3.5. Strategic Trade Theory.

Since the 1980s, Western economists, represented by James Brown and Barbara Spencer, have proposed strategic trade theory, which advocates government intervention, saying that because of imperfect competition and externalities, the government can subsidize to help oligarchs to occupy overseas markets and promote domestic trade. The theory emphasizes the role of the government, whose policies can also build comparative advantages for domestic firms.

4. The New New Trade Theory

The new new trade theory includes trade models with heterogeneous firms and endogenous boundary model of the firm, explaining international trade from firm level. The theory makes a guidance for multinational corporations' internationalization path selection: export or foreign direct investment for global expansion strategy.

In recent years, for example, the top 10% companies accounted for 96% of the total US exports. It can be found that the export firms are a few higher-productivity ones with strong competitiveness. The new new international trade theory is just to explain this phenomenon.

In this regard, Meritz designed a model based on firm heterogeneity. The basic idea is that only

high-productivity firms can be competitive enough in the market to obtain more profits to pay the high fixed cost of FDI. This can actually explain the relationship between FDI and exports. Take an example of horizontal FDI, a firm can export goods directly to foreign countries, but it costs freight, or it can directly establish branches overseas, but it requires a lot of investment to build the fixed infrastructure, so only when the expected total freight is greater than the overseas fixed cost of construction, will the firm choose direct FDI. And total cost of freight is the number of goods exported multiplying the cost of shipping each time, the more the export, the higher the total freight, and it can be seen that only large-scale, high-productivity firms will have the competitive power to obtain large trade volume. Firms with low productivity will only choose to export, or they just confine themselves to meet the domestic market and do not choose to export goods.

New and new international trade is a supplement to traditional international trade theory. It relaxes the assumption of firm homogeneity and studies the causes of international trade on a microscopic perspective. It also shows that free trade will bring some trouble to less-developed areas and low-productivity firms, because international trade is actually a process of resource reallocation. According to this theory, resources will flow to efficient firms or regions. Therefore, regional gap may be increased, which gives the country a good policy inspiration.

5. The Developing Path of International Trade Theory

One of the most important issues to be solved by international trade theory is the one of trade gains. For mercantilism, international trade is a zero-sum game, and Adam Smith believes that trade is a "win-win" game. Then David Ricardo expands the trade benefits to any country. This is a historic leap.

Comparative advantage has always been the most important concept in international trade theory. It underlies international trade. However, the deeper interpretation of the source of comparative advantage is factor endowment theory, which reveals that factor endowment underlies comparative advantage. This is another big step forward.

Leontief is the first person to verify factor endowment theory. The Leontief paradox has a big impact on international trade theory. There are many explanations for Leontief paradox at different levels, which enriched H-O theory, and since then researchers began to test the theory constantly. This is another great progress.

The traditional international trade theory, based on the assumption that the market is completely competitive and constant returns to scale, reveals the reasons for inter-industry trade. And new trade theories relax these two hypotheses to study the causes of intra-industry trade. The new trade theory based on the premise of imperfect competition and increasing returns to scale, which is closer to new international trade practice. Moreover, Linde has taken a different approach, explaining intra-industry trade from the demand side, proposing the theory of Preference Similarity, which provides a deep insight to analyze the trade phenomenon between similar developed countries.

However, the theories I have mentioned all explain international trade from a static perspective, while the product life cycle theory and technology gap theory further develop the international trade theories. They study the causes of international trade from a dynamic perspective, and reveal the truth of industrial transfer, vertical specification. This is the first time in the history of international trade theories.

Michael Porter put forward national competitive advantage theory, revealing international trade on system and national level and expounding how a country maintains a lasting comparative advantage dynamically. and It provides a theoretical basis for a country on how to innovate and maintain international competitiveness in the era of open economy.

Strategic trade policy theory emphasizes the protection of oligopolistic firms and high-end industries with technical spillovers, and encourages government to play positive role in industrial upgrading. This theory indicates that international division system, based on imperfect competition and economies of scale, is dynamic and random and that government policies and corporate strategies are interdependent and connected. So government can work out some industrial policies to obtain a beneficial equilibrium.

Before the new new international trade theory, all the theories were drawn on the hypothesis of firm homogeneity. However, with the popularity of international trade methods such as FDI and outsourcing, some economists began to study the boundary between trade and FDI, and to make a reasonable explanation about multinational corporations' internationalization path chooses. This brings micro-foundation to trade theory.

6. The Developing Trend of International Trade Theory

Today, global warming, air and water pollution and other global environmental problems are very prominent. This requires the cooperation of human society, building a community of destiny to face together. International trade is an effective way for human beings to be closely connected and communicate. Carbon tariffs and carbon trading rights have been paid more and more attention to tackle environmental problems, Green Trade is a new trend.

The flow of factors in the world is no longer restricted by national boundaries. Thanks to the developing of e-commerce, the internet has been fully integrated into international trade, and information exchange takes place in an instant. The factors such as labor、capital can flow freely around the world, and the foundation of factor endowment theory no longer exists, and new factors such as technology, information, knowledge and human capital are becoming more and more important. International trade theory will model those new factors inevitably.

Economic integration has also developed rapidly. This also requires international trade theory to strengthen the study of regional trade. Trade creation and trade transfer are always in parallel with each other, and intra-regional trade is increasing.

Global industrial chain, external economies of scale have played an increasingly important role in intra-industry trade. Industrial clusters, industrial transfers, and industrial upgrading all require new trade theories to explain.

The institution is related to trade environment and rules. It is also a part of a country's international competitiveness. The institution and policy can be coordinated to achieve better development. Institutional economics should also be better integrated into international trade theory.

In the era of economic globalization, the integration of international trade and international investment is getting stronger and stronger. They are sometimes complementary and sometimes unified. The rapid development of multinational corporations and the increase of intra-national trade in multinational corporations urgently require new trade theories to explain and guide.

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