

# Study on Forging Ahead Strategy of Developing Country from the Perspective of Comparative Advantage

## ETUDE DE LA STRATÉGIE D'ALLER DE L'AVANT DU PAYS EN DÉVELOPPEMENT DANS LA PERSPECTIVE DE L'AVANTAGE COMPARATIVE

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**Abstract:** New trade theory, which is the representative of the contemporary comparative advantage theory, has become the mainstream trade theory, but the theory is developed in the country whose market economy is relative developed, and therefore it has not analyzed problems from the perspective of developing countries.

New trade theory reveals the positive role that technology plays in trade, but it does not discuss how the developing country should do to realize catching up and surpassing by using technology and it does not give the instruction on how the developing countries can skip comparative benefit trap. From the perspective of comparative advantage, this paper establishes the game models between developed countries and between developed and developing countries, and points out that the developing countries can't narrow the gap with the developed countries and achieve national economy takeoff until they implement the Forging Ahead Strategy.

**Key words:** comparative advantage, forging ahead strategy, Game

**Résumé:** La nouvelle théorie du commerce, qui est représentative de la théorie de l'avantage comparatif contemporaine, est devenue la tendance générale de la théorie commerciale. Mais cette théorie est développée dans des pays dont l'économie de marché est relativement développée, et ainsi elle n'a pas analysé les problèmes sous l'angle des pays en développement.

La nouvelle théorie du commerce révèle le rôle positif de la technologie dans le commerce, mais elle ne discute pas comment les pays en développement doivent faire pour rattraper et surpasser avec l'aide de la technologie, et elle ne donne pas non plus l'instruction sur comment les pays en développement peuvent éviter le piège de bénéfice comparatif. Dans la perspective de l'avantage comparatif, le présent article établit des modèles de jeu entre les pays développés et les pays en développement, et indique que les pays en développement ne peuvent raccourcir l'écart avec les pays développés et accomplir l'essor de l'économie nationale que s'ils mettent en oeuvre la Stratégie d'aller de l'avant.

**Mots-Clés:** avantage comparatif, stratégie d'aller de l'avant, jeu

### 1. COMPARATIVE ADVANTAGES GAME MODEL BETWEEN DEVELOPED COUNTRIES.

From development of comparative advantage theory, we can see that the theory of comparative advantage is still the core of international trade theory, since it explains that international trade is the result of

comparative advantage. However, developed and developing countries will have completely different outcome when they take development strategy in accordance with the theory of comparative advantage. As for developed countries, they have their own comparative advantages in industries and products. We suppose that two developed countries can choose to develop advantage industries or advantage products (strategy 1), or to develop the non-advantage industries and non-advantage products (strategy 2). If both

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countries choose strategy 1, resources, labor and capital will be used in most effective way, and social wealth will be increased, as a result, the two countries will get the most benefits. If one country chooses strategy 1, while the other one chooses strategy 2, resources, labor and capital will be relatively wasted. If both countries choose strategy 2, resources, labor and capital will be wasted seriously. If  $(A_i, B_j)$  represents the advantages of both countries when the developed country A takes strategy i while developed country B takes strategy j, then the game model between developed countries from perspective of comparative advantage is shown as below.

		developed country A	
		strategy1	strategy2
developed country B	strateGY1	(5, 5)	(6, 4)
	strateGY2	(4, 6)	(4, 4)

According to the principle of forging ahead strategy and the theory of comparative advantage, developed countries should develop their advantage industries and products so that the productivity and social wealth can be increased, and thus each country can acquire its maximum profit. In other words, above model can prove that comparative advantage theory completely suited to international trade and the international division of labor between developed countries.

## 2. COMPARATIVE ADVANTAGES GAME MODEL BETWEEN DEVELOPED AND DEVELOPING COUNTRIES

The economic and various factors of production endowments in developing countries are far behind developed countries, the advantage of developing countries are their relative cheaper primary labor and certain non-renewable natural resources. However, as the globalization process is accelerating, capital, labor, resources and other production factors can flow freely in the international market, and the progress of technology and the increase in investment in human capital promote the substitution of capital for labor, and new materials for natural resources and as well as improve the quality of the labor force to make up for the lack of quantity, therefore, the comparative advantages of natural resources and labor force of developing countries are no longer monopoly advantages in international competition.

Second is due to different elements will bring different advantage. The experience tells us that export

of manufactured goods brings greater advantages than exports of primary products. Technology and capital-intensive products bring greater advantages than the general labor and resource-intensive products. However, in international trade, the terms of trade of exchange low-grade natural resources and labor-intensive products for capital-intensive and technology-intensive products are worsening. From the demand aspect, as for market share and price level, the former are on the decrease, while the latter are on the increase. And in a division of labor according to comparative advantage in international trade pattern, the exports of developing countries depend on the economic growth rate of developed countries. At the same time, developing countries face the pressure of domestic unemployment on one hand and the barriers of impeding the entry of the labor-intensive products made by developed countries on the other hand. From the supply aspect, the backward technology causes the growing production costs, and as a result, the developing countries are easily put to death if the demand the developed countries change. There is a huge factor endowment contrast between developed and developing countries, the developed countries endow with relatively abundant capital entrepreneurs and technical workforce and other important resources, and they have strong comparative advantage in technology-intensive and capital-intensive industries and products in the international trade and the international division of labor. Developed countries usually use their comparative advantage to obtain the maximum comparative advantage (strategy 1), we may assume that the developed countries may choose less developed industries or products to participate in the competition (strategy 2); as a developing country, if it takes comparative advantage strategy in accordance with the size of the opportunity cost to determine the location of the international division of labor, and use the labor resources and natural resources advantages to participate in the international division of labor (strategy 1), then it can only receive a relatively lower surcharge value.

And the implementation of the comparative advantage will reinforce this form of international division of labor, and developing countries will be in low value-added sectors in the long-term international trade. Because the elasticity of demand of the primary products are low, and the international prices of primary products fall, the worsening terms of trade of developing countries is inevitable, the result is that the rich will be richer and the poor will be poorer. From the industrial history of Latin American countries in the past 100 years and the car industrial history of China in the past 20 years we can see that if the developing countries develop their international trade following comparative advantage, they will inevitably be trapped in comparative advantage. In order to change the backward situation of developing countries in the economies and the unequal distribution of benefits in international trade, and to narrow the gap with

developed countries, developing countries must adjust their own development strategies, and won't tie themselves down to the comparative advantage strategy any more. Developing countries must formulate their own development strategies according to their specific national conditions, and choose several leading industries which are related to other industries and which can stimulate the national economy, and then make forging ahead strategy for the leading industries (strategy 2) to realize economic catching up and economic takeoff.

( $A_i, B_j$ ) represents the advantages of developed and developing countries when developing country takes strategy  $i$  while developed country takes strategy  $j$ , then the game model between developed and developing countries from perspective of comparative advantage is shown as below.

		developed country	
		strategy1	strategy2
developing country	strategy1	(2, 8)	(3, 6)
	strategy2	(6, 6)	(7, 6)

According to the principle of forging ahead strategy and the theory of comparative advantage, developed countries certainly will develop their advantage industries and products to involve in international trade and division of labor, if developing countries implement the forging ahead strategy, they will have chance to narrow the gap with developed countries and achieve national economic takeoff.

### 3. CONCLUSION

So far comparative advantage theory is still the core of division of labor-international trade theory, it still holds that the cause on international trade is comparative advantage. However, times have changed, so has the comparative advantage theory, compared with the strategy of Ricardian era, the new trade theory progressed greatly, but the principle of comparative advantage did not change, only the new causes of comparative advantage have been made. Modern comparative advantage theory represented by new trade theory has become the mainstream trade theory, but the theory is developed in the country whose market economy is relative developed, and therefore it has not analyzed the problems of developing countries. In the international trade between developed countries, according to the principle of forging ahead strategy and the theory of comparative advantage, developed countries should develop their advantage industries and products so that the productivity and social wealth can be increased, and thus each country can acquire its maximum profit. If the developing countries develop their international trade following comparative advantage, they will inevitably be trapped in comparative advantage and the result is that the rich will be richer and the poor will be poorer. Only when developing countries implement the forging ahead strategy, they will have chance to narrow the gap with developed countries and achieve national economic takeoff. After World War II, the practice of those countries such as West Germany, Japan and Asia's "Four Little Dragons" proved that developing countries can skip comparative advantage trap and achieve national economic rise, and the game models established in this paper also support such a conclusion.

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