The Logic and Principles behind the "China Miracle" and China's Economic Transformation and Upgrading

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Abstract. This paper analyzes the logic and reasons behind China's economic growth miracle and economic transformation and upgrading from both theoretical and empirical perspectives, which is helpful for understanding the factors of China's economic development. It is found that China's economic development has the characteristics of extensive and market-oriented, accompanied by some problems, such as the lack of quality and innovation, possibly caused by fiscal decentralization and competitive tournaments. By using data to analyze the trend of China's economic transformation, we find that it is constantly improving.

Keywords: China Miracle; Economic Development; Transition Trend.

1. Introduction

Since the reforming and opening-up policy put in place, China's economy has taken off rapidly and maintained a long-term growth rate of more than double digits, which is regarded as the "Chinese miracle" of modern China. This miracle in China has not only brought a great deal of wealth to the Chinese people, but also greatly increased the employment rate, making the Chinese economy, compared to the 1980s before, has undergone earth-shaking changes. This miracle has laid the foundation for China's sustainable development for decades to come. In terms of economic development, China has shown the characteristics of rapid growth and focusing on only quantity, but the need of improvement of quality of goods is ignored. Therefore, since the 18th National Congress of the Communist Party of China, China has made it clear that while increasing the speed and quantity of economic development, the improvement of quality should not be left behind. As China moves from "high-speed development" to the stage of "high-quality and efficient" development, the transformation and upgrading of the economy gradually becomes more important, and China's economic focus gradually begins to shift, thus further promoting China's sustainable development. But trade-offs have also emerged in recent decades. In terms of economy, quietly rising inflation rate and some periods of stagflation; Above environmental protection, a large number of carbon dioxide emissions, waste and pollution of purified water. Part of the reason is caused by extensive economic growth mode, so the potential economic development point remains to be explored.

This paper discusses the forms and influencing factors of political economy domestically and abroad. Theoretically, it has certain theoretical and practical significance. It hopes to provide a theoretical framework to explain the political and economic factors behind China's economic miracle and provide some theoretical reference and support for the subsequent research. In theory and practice, this paper attempts to analyze the influencing factors behind, so as to provide reference and basis for scientific identification of the reasons for China's rapid economic development. In practice, the indicators and variables of China's economic development will be studied from the perspective of current politics, which can provide support for the understanding of the "China Miracle" for current politics and provide suggestions for China's economic transformation and development under the new political and economic form.

The possible contribution (innovation) of this paper is mainly reflected in the following aspects: In the past, the explanation of the Chinese miracle and the literature on the study of China's economic transformation may be relatively few. This paper, starting from the reasons of the Chinese miracle, analyzes the reasons for the transformation and development of the Chinese miracle from both theoretical and practical perspectives, and makes some meaningful additions to relevant articles, hoping to make certain contributions to the theme. This paper discusses the Chinese miracle and the

factors and challenges of China's economic development and transformation from both domestic and foreign perspectives, so as to have a more comprehensive understanding of this problem. This paper finds that there are many domestic and foreign political and economic factors that affect China's economic development, some of which bring benefits to China's economic growth, while some bring difficulties. China's economic transformation and development may need to give full play to the influence of different factors or pay full attention to different influencing factors and pay attention to how the domestic political and economic situation changes. Thus, it will provide a more stable and reliable environment for China's economic transformation and development.

2. Specific Features of China's Economic Miracle

So, what are the specific features of China's economic miracle? First, the most important manifestation of China's economic miracle is that the Chinese economy has been growing at a high speed for a long time. Around the world, it has been one of the greatest stories of economic growth and recovery since the second world war. Since the reform and opening up, China's economic growth rate has been rapid development, basically at a double-digit growth rate. The speed of economic growth has brought about changes in many aspects of Chinese society, one of which is the abundance of material wealth. With the increase of China's GDP and annual growth rate, the material wealth foundation of the Chinese people has been strengthened year by year, and the asset base of the Chinese government has also been gradually improved. This has laid the foundation for the sustainable development of China and is an embodiment of the high-speed development of China's economy. Second, with the continuous development of economy, the income level of residents also increases year by year. Although the increase of income level is mainly reflected in urban residents, there are certain regional differences and inequalities. The income level of rural residents has been improved, but it is still relatively slow compared with that of urban residents. However, both China's rural areas and villages have undergone great changes after the reform and opening up, changing their original appearance. The improvement of residents' income level also brings the increase of residents' living happiness level. The third is the active market economy. The development of China's economy has also promoted the development of the socialist market economy with Chinese characteristics and improved the degree of activity of the economy. This can be seen in the rapid development of the socialist market economy in Jiangsu, Zhejiang, Shanghai and southeast coastal areas of China, which has made important contributions to the local economic growth, such as providing employment opportunities. Is a manifestation of China's economic growth miracle. The above three points can reflect the miracle of China's high economic growth rate and lay the foundation for China's further development.

Compared with other developing countries, China has its own particularity. China can maintain a relatively high economic growth rate for a long time, mainly because of its own special reasons. There are many countries with weak economic foundation in the world, but why can China stand out from them? The reasons for the existence of such rapid economic growth may be as follows: first, the institutional environment with Chinese characteristics: promotion tournaments and fiscal decentralization. The Chinese government has used these two methods to boost the enthusiasm and motivation of local officials. The Chinese government has adopted such a competitive framework to push local officials to develop the economy and promote officials based on economic performance. That is why fiscal decentralization is needed. Local officials need to develop, to fulfill their plans, they need money, so the central government chooses to delegate money. When local officials have both financial resources and motivation, they will contribute to local economic development. But the central government still has the capacity for macro-control. Ii. Institutional dividend: Labor and resources: The Chinese government has certain comparative advantages in these two aspects, and there is a dividend. The Chinese government has made full use of the advantages of labor force in terms of quantity and cost, and has given full play to the advantages of cheap labor force. It has invested a large number of production factors into sectors that can bring a large number of economic

benefits in the short term, such as textile, steel, chemical and other industries, providing economic performance for regional development and becoming an important institutional dividend for China's economic development.

The miracle of China's economic growth comes from China's unique institutions, which have laid the foundation for long-term sustainable development. But such an economic miracle also has certain, multifaceted effects. So, what are the certain benefits and consequences of such an economic miracle? First of all, such an economic miracle will naturally bring some benefits, positive side. The level of China's economic development has been raised in an all-round way. Escape from poverty. The speed and aggregate of China's economic development are constantly improving. In this process, the structure, quality and efficiency of China's economic growth have also been improved. Great changes have taken place in urban and rural areas, infrastructure networks have been continuously improved, and medical, environmental, health and public services have gradually improved. At the same time, getting rid of poverty is also an important point. With a certain economic foundation, the government has the ability to strengthen the redistribution of income and help rural areas get rid of poverty and reach a well-off society by means of employment assistance, industrial support and subsidies. Therefore, China's economic development miracle has brought certain benefits and positive help to China's society and economy. However, it should not be ignored that China's economic growth often conflicts with other macro-development goals, making the Chinese government face certain trade-offs and bringing certain negative impacts to China's society. For example, the destruction of ecological environment -- the consumption of a large number of resources (including a large amount of non-renewable energy, at the same time, there is a certain degree of waste), the development of polluting industries to achieve economic development and deregulation (deregulation) and so on. In this process, the ecological environment may be destroyed, resources may be short, and resource advantages may be gradually lost. Due to the extensive characteristics of economic development, a large number of carbon emissions increase the pressure of energy conservation and emission reduction, and it has suffered certain pressure in the international community. At the same time, the development of scientific and technological innovation is relatively backward, because of the Chinese characteristic system mentioned above, few local governments are willing to spend a large amount of financial time on scientific and technological development which cannot produce certain economic benefits in the short term.

3. Measurement of China's Economic Transformation and Upgrading

3.1 Index System Construction

Table 1. Index system of China's economic transformation

China's economic transformation and upgrading	GDP (CNY)
	Upgrading of industrial structure
	The contribution of tertiary industry to GDP
	The pull of the secondary industry to GDP
	The contribution of tertiary industry to GDP
	The contribution of the secondary industry to GDP

As for the construction of the index system of China's economic transformation and upgrading, the following indicators are used, which are shown in Table 1. They are GDP per capita (yuan), industrial structure upgrading, tertiary industry's pull to GDP, secondary industry's pull to GDP,

tertiary industry's contribution to GDP and secondary industry's contribution to GDP. This paper uses data from 2000 to 2020 as a sample basis for exploring China's transformation and upgrading.

3.2 Measurement Method

In order to find out the level of China's economic transformation and upgrading, this paper uses entropy weight method to synthesize six indicators in the index system in Table 1. Through a series of operations, entropy weight method can bring relatively reasonable and effective results, which can effectively support the exploration of the level of China's economic transformation and upgrading. The formula of entropy weight method is as follows:

(1) Establish the original matrix. Establish the original index data matrix: with m years and n indexes, a matrix with m rows and n columns can be established. Let any data in the matrix be X_{ij}, in order to represent the actual value of indicator j in year i

(2) Data standardization. The specific methods are:

In the positive direction:

$$y_{ij} = [x_{ij} - \min(x_{1j}, x_{2j}, ..., x_{nj})] / [x_{\max}(x_{1j}, x_{2j}, ..., x_{nj}) - \min(x_{1j}, x_{2j}, ..., x_{nj}) * 100$$

In the negative direction:

$$y_{ij} = [x_{\max}(x_{1j}, x_{2j}, ..., x_{nj}) - x_{ij}] / [x_{\max}(x_{1j}, x_{2j}, ..., x_{nj}) - \min(x_{1j}, x_{2j}, ..., x_{nj}) * 100$$

(3) Calculate the entropy of index j

$$e_j = -k * \sum_{i=1}^{m} [p_{ij} * \ln(p_{ij})]$$

$$k = 1 / \ln m, p_{ij} = y_{ij} / \sum_{i=1}^{m} y_{ij}$$

(4) Calculate the weight of index j

$$w_j = (1 - e_j) / \sum_{j=1}^{n} (1 - e_j)$$

(5) Estimate the quality of urbanization $u_i = \sum_{j=1}^{n} (y_{ij} * w_j)$

In this article, the results calculated by the six indicators will be referred to as' ECO '.

3.3 Analysis of Measurements Results

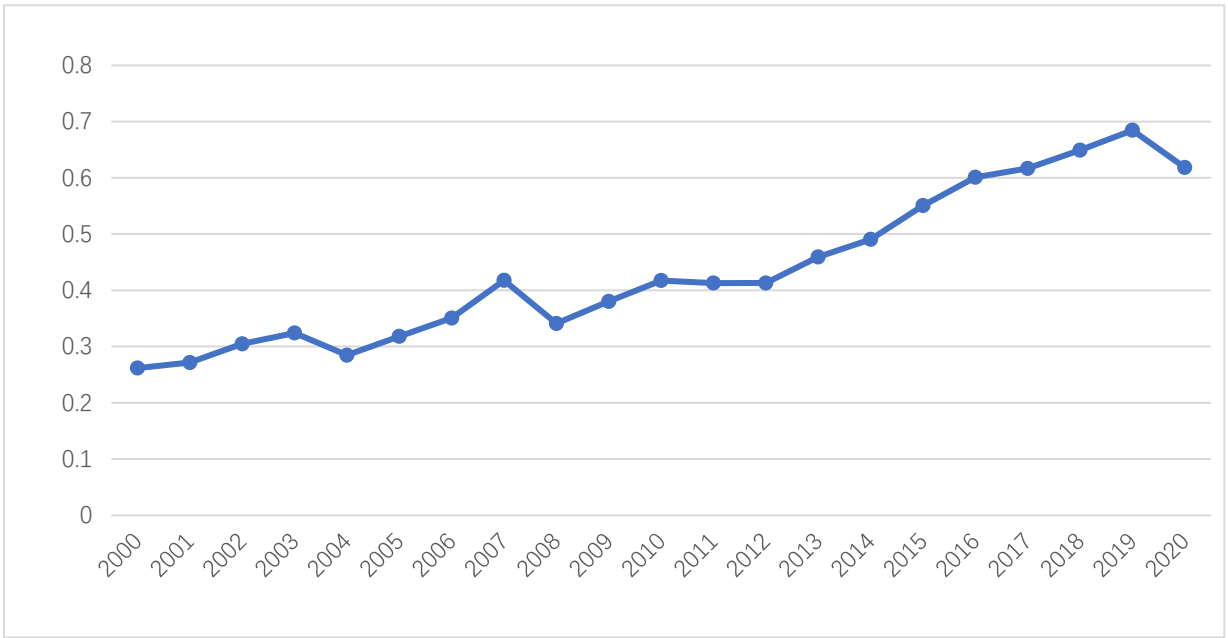

Figure 1. ECO index

Based on six indexes and entropy weight method, the ECO index between 2000 and 2020 is obtained in this paper. Since the beginning of the 21st century, the Chinese government has not only

focused on improving the speed of China's economic development, but also made efforts to promote economic transformation and upgrading, and has taken many measures in these two aspects. On the one hand, from the perspective of industrial structure, governments at all levels vigorously develop high-tech industry and adopt some fiscal, financial and investment measures to encourage the development of high-tech industry and some high-end manufacturing industries, providing impetus for the upgrading of industrial structure. On the other hand, the Chinese government has not only promoted the speed of China's economic development, but also promoted the quality development of products and services in various industries, so that the two can develop in a coordinated way. It is also actively exerting comparative advantages such as labor force and land to enhance the resilience of economic development and lay a foundation for economic transformation and upgrading. At some important point in time, especially when the external environment interferes. For example, in 2003, ECO was 0.32, but in 2004, it dropped to 0.28; The two time points of 2008 and 2020 also have a big drop compared to the previous time. These may be partly caused by the global financial crisis and the virus epidemic, which have dealt a major blow to China's economic transformation. Some enterprises and industries cannot survive in the economic downturn, which leads to the difficult problem of transformation, and finally slows down the speed of China's economic transformation. This shows that not only the domestic environment will have a certain impact on China's economic transformation, but also the foreign environment will have a great impact on China's economic transformation. Therefore, the influence of the government in macro-control is very important. The macro-control of the government can avoid some shocks and make the economic development stable, which also reflects the superiority of our system in a disguised way. With regard to ECO index, especially since 2012, after China's economic growth became normal, the growth rate increased year by year until 2017, when it began to decline. But the trend of China's economic transformation and upgrading is becoming more and more obvious. This is largely because the Chinese government has accelerated the promotion of industrial product quality, accelerated the elimination of inferior industries, promoted high-emerging industries, and substantially promoted the transformation and upgrading of old industries.

4. Analysis of Influencing Factors of China's Economic Transformation

In order to test the impact of China's economic transformation and upgrading, urbanization, per capita GDP, ratio of fiscal expenditure to GDP, ratio of total exports and imports to GDP, total population and railway mileage are selected as variables in this paper. ECO was used as the dependent variable for empirical regression.

Table 2. The parameters of the indicators after empirical regression

ECO	
Urban	2.01
GDP / capita	-0.37
Fiscal expenditure	-0.37
railway	-0.44
population	9.98
Trade	-0.21

It is found that there is a positive correlation between Urban and Eco, indicating that urbanization is conducive to economic transformation and upgrading, which may be because urbanization can promote the transfer of surplus rural labor force to cities, so as to further provide impetus for economic transformation and upgrading. The negative correlation between GDP per capita and ECO indicates that growth in GDP per capita is not conducive to China's economic transformation. This may be due to the extensive economic growth model China has adopted in the past few decades, which is mainly driven by investment and consumption (or factors) rather than innovation. The relationship between railway mileage and ECO index is also negatively correlated, which also indicates that the growth of

railway mileage is not conducive to China's economic transformation. It may be similar to per capita GDP, which is mainly for economic growth, but neglects economic transformation. There is a negative correlation between government intervention (fiscal policy) and ECO, indicating that government intervention is also detrimental to economic transformation and upgrading. It may be because sometimes excessive government intervention leads to market failure, resource misallocation factor market distortion and resource waste. Meanwhile, Chinese government resources usually flow to state-owned enterprises, which are relatively difficult to transform, or are used for investment. Lead to economic transition difficult. There is also a negative correlation between trade openness and ECO. This may be because trade is concentrated in small, medium and low-end manufacturing industries, which means a lack of innovation and is not conducive to economic transformation. There is a positive correlation between population growth and ECO, indicating that population growth is conducive to economic transformation and upgrading. It may be because population growth has increased the supply of high-end labor force to the labor market, which can help economic transformation and upgrading

5. China's Economic Development in the New Era

5.1 China's Economic Transformation and Development Should Pay More Attention to Quality Rather than Speed

As mentioned above, governments have long used to promote economic development and transformation through a competitive framework and fiscal decentralization along with extensive economic development. The competition framework adopted by the Chinese government mainly measures the speed and total GDP growth. In other words, local governments may ignore the quality aspect in the process of economic development, but only unilaterally pursue economic promotion and the development of primary and secondary industries, such as coal mining, iron making, dyeing or chemical industry, which are relatively simple and crude. It can help economic development in the short term, but it is not sustainable in the long run, and it is harmful to the environment. As a result, economic transformation and development are more difficult and directly inhibit the improvement of the quality of China's economic development. Blindly focus on the speed of economic development, but lack of attention to quality and innovation, will eventually make the enterprise efficiency is low, resources are wasted, the environment is polluted, and long-term planning development is difficult. Therefore, from extensive development to detailed development becomes particularly important. More attention needs to be paid to the quality of products and services, and more innovation needs to be invested. Therefore, in the case that China's economic development has entered a new normal, the government has gradually transferred the standard from the speed of economic development to the quality of economic development, such as industrial structure, environmental protection, improvement of people's livelihood and other projects, rather than the simple increase of GDP. The quality of economic development cannot be achieved overnight. China's central government should build a new competition system and provide continuous support in the long run, so that local officials pay more attention to the quality of development. It needs to give local governments longer time to promote the transformation of economic development mode. At the same time, more investment in innovation, so that the industry has a competitive advantage in the world, at the same time can have a deep development space in the long run.

5.2 Relying on Innovation to Drive Economic Transformation and Development

Innovation is a key driving force for economic transformation and development. However, China's high rate of economic growth is largely dependent on factor inputs rather than on advances in innovation and technology. As China's economy shifts to high-quality development, China's economic transformation and development must abandon the traditional development model driven by factors and investment, and be transformed into more technological innovation. In this process, local governments need to train more high-quality talents, increase scientific innovation and

investment, and provide a better technological and innovation environment for economic transformation and development. At the same time, it is necessary to increase the breakthrough of basic research, high-tech technology and core technology, apply various emerging technologies to economic development, industrial production and people's life, and improve all aspects of economic development through scientific and technological capabilities. In addition, it is worth noting that innovation and development also need a good institutional environment and policy support, so it is necessary to increase financial and fiscal support, build a good entrepreneurial and financial environment, rely on these technologies or innovations to further drive high-quality economic development. It is foreseeable that although China has made some progress in its economic development transformation, it is still far from the level of developed countries. In an innovation-driven environment, China still has a large space for economic growth. Therefore, it is necessary to increase the development of innovation and technology.

5.3 We Will Foster High-End Industries and Promote Economic Structural Transformation and Upgrading

The transformation and upgrading of economic structure and industrial structure is in line with the law of the market. Some industries and companies with poor development and low quality, especially traditional industries, cannot survive in the market because their technology and efficiency are relatively backward, so that they are eliminated by the market, so that only better enterprises can survive and make profits from it. The industrial structure often evolves from the primary industry to the secondary industry and the tertiary industry. Therefore, in the process of economic development, the government should respect the law of economic and industrial structure transformation, and give full play to the important role of the market in the process of economic transformation and upgrading. The structural transformation of economy is a process of recombination and reallocation of elements. With the transformation and upgrading of the economy, backward industries cannot obtain resources and are eliminated immediately. We need to respect the common sense of this economic transition, reduce unreasonable government intervention and administrative intervention, so that factor resources can adjust and flow freely in accordance with the law of market economy, so that the economic structure will develop towards a higher end. The government needs to increase investment in high-end industries, strengthen the cooperation between domestic and foreign governments, and give full play to the comparative advantages of various regions. For example, the central and western parts of China can give full play to their labor resources, while the southeast can give full play to their technological advantages, and jointly develop some high-tech industries. The eastern region needs to strengthen its assistance to the industrial development of the central and western regions. For example, it should help the central and western regions reduce pollution and low added value caused by environmental development, and foster some new industrial growth points to lay a foundation for the economic transformation and upgrading of the central and western regions. In addition, we should also note that the transformation and development of the industry needs to be combined with the characteristics of various economies. We should not blindly apply the template or unilaterally pursue high-tech development, which will lead to the unreasonable industrial structure. We should proceed from the reality.

6. Conclusion and Reflection

China's economic growth has made miraculous achievements, in-depth analysis of the reasons behind China's economic growth miracle is of great practical significance. This paper discusses the reasons of China's economic miracle and the process of transformation from a theoretical and empirical perspective. We find that although China's economic growth has made great achievements, some problems have also appeared along with the economic growth. For example, extensive economic growth brings less innovation, low technology, and does not pay attention to quality development. The reason for such rapid growth may be the peculiarities of China's central and local

government institutions, such as competitive tournaments and fiscal decentralization. At the same time, the transformation and upgrading of China's economy also show a trend of fluctuating upward trend at the same time of China's economic growth. It can be seen that China's economic transformation and development are affected by multiple factors. This paper puts forward some suggestions from the perspectives of innovation, industry and human capital, hoping to help China's economic development and its economic transformation and upgrading.

China's economic growth and economic transformation and upgrading are influenced by various factors, but in recent years, the impact of the international situation on them is particularly prominent. In the context of globalization, the COVID-19 pandemic, the Russia-Ukraine war, the deterioration of Sino-US relations and the rise of prices in the US and Europe and the decline of purchasing power are all impacting the Chinese market, making China's economic development and transformation more difficult. In such an environment, it becomes particularly important to give up part of the past thinking and explore a new path in line with the current environment and times. In the global economy is showing a downturn, China's export is declining, export difficulties, international pressure under the circumstances, how to play their own advantages, to break a way out of the difficulties is what we need to do now. China has made great progress in the past 20 years. However, under such an impact on the world, how to regain the confidence of consumers in such a stagflation situation and achieve the true sense of economic internal circulation is needed.

References

[1] Yin L, Wu C. Promotion incentives and air pollution: From the political promotion tournament to the environment tournament[J]. Journal of Environmental Management, 2022,317:115491.

[2] Tang P, Jiang Q, Mi L. One-vote veto: The threshold effect of environmental pollution in China's economic promotion tournament[J]. Ecological Economics, 2021,185:107069.

[3] Huang J. Sulfur dioxide (SO2) emissions and government spending on environmental protection in China - Evidence from spatial econometric analysis[J]. Journal of Cleaner Production, 2018,175:431-441.