

# Research on Digital Economy Promoting High-quality Development of Real Economy from the Perspective of China's Modernization

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## Abstract

The real economy occupies a dominant position in China's economic development strategy, and the high-quality development path of the real economy, characterized by efficiency improvement and reasonable growth, lays the foundation for China's style of modernization. To deeply shape the advantages of high-quality development of the real economy in China's style of modernization, improve the top-level design of high-quality development of the real economy, this paper first analyzes the current state of high-quality development of the Chinese economy from the perspectives of the output value of the three major industries, general budget revenue, and the level of household consumption. It further analyzes the relationship and shortcomings between the digital economy and high-quality development of the real economy, provides policy recommendations for optimizing the business environment for high-quality development of the real economy, extending the open space for high-quality development of the real economy, and innovating the business models for high-quality development of the real economy.

## Keywords

Real Economy; High-Quality Development; Digital Economy.

## 1. INTRODUCTION

In promoting the great rejuvenation of the Chinese nation through the style of Chinese modernization, high-quality development is its inherent requirement and top priority [1]. Using the real economy as the engine and foundation for high-quality development, fully leveraging the material and technological support effectiveness of the real economy, is a key measure for building a comprehensive socialist modernized country. The real economy possesses the distinctive ability to directly create societal wealth [2], making its high-quality development an intrinsic driving force for advancing the construction of Chinese-style modernization. The real economy refers to the total value of commodities created by producers in a country at a certain stage, and it is the crystallization of human efforts through physical and mental labor [3]. At the 20th Party Congress, General Secretary Xi Jinping emphasized the need to give full play to the leading role of the real economy, lead the development of China's economy, build a healthy and sustainable economic development system, and provide the material foundation for the development of socialism with Chinese characteristics [4]. At the current stage, China has achieved its first centenary goal and is advancing toward the second centenary goal. On the road to achieving the second centenary goal, there are significant challenges and pressures from various aspects. How to integrate resources from all sectors of society and inject new energy into achieving the second centenary goal has become an issue that Chinese social

development must address. The development of the real economy provides a breakthrough for this issue. The real economy serves as the backbone of China's overall development strategy, and its high-quality development can safeguard the Chinese economy. On the one hand, the high-quality development of the real economy can accelerate the flow of funds, alleviate the adverse effects of fund immobilization, and address issues such as the unreasonable industrial structure, product structure, and fund immobilization that still exist in China's diversified industrial development. Vigorous development of the real economy can expedite fund circulation and, to some extent, resolve the issue of fund immobilization, promoting returns on financial asset investments and transactions. On the other hand, the high-quality development of the real economy can enhance the level of economic development in China and optimize the structure of economic growth, addressing regional and sectoral imbalances. In China, approximately 56% of land resources are used to support agricultural development, 70% of labor resources enter industrial manufacturing and traditional retail sectors, and capital resources mainly flow into high-end manufacturing sectors. The scalable development of the real economy can effectively alleviate this differentiated and biased industry resource allocation pattern [5]. This study, by analyzing the current status and deficiencies of high-quality development of the real economy in China, holds significant practical significance for promoting the high-quality development of the real economy.

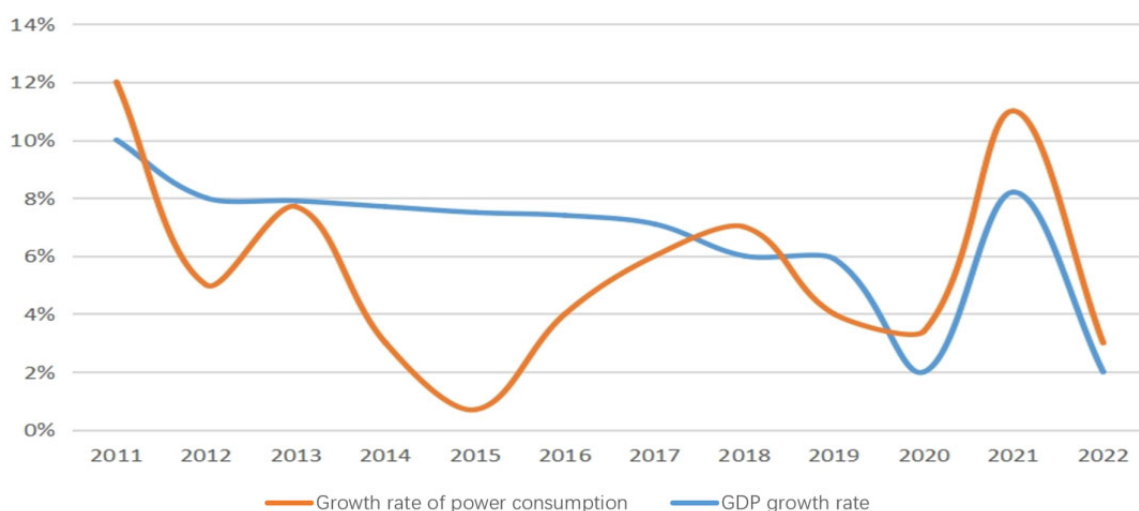
## **2. INDICATORS FOR MEASURING HIGH-QUALITY ECONOMIC DEVELOPMENT**

Entering a new era, the promotion of high-quality development of the real economy from the perspective of Chinese modernization can be seen as an international strategic competition based on industrial and technological revolution, to some extent [6]. China's economy has moved away from the previous model of pursuing high-speed economic growth and is gradually transitioning towards pursuing high-quality economic development. Therefore, China's current economic measurement indicator system has evolved from primarily relying on GDP measurement to incorporating multiple indicators, such as fixed asset investment, price levels, CPI, foreign trade, and the stock market. In the following discussion, we will mainly focus on five indicators: changes in the output value of the three major industries, general budget revenue, and household consumption levels.

There exists a close relationship between the output value of the primary industry and high-quality economic growth, mainly reflecting changes in agricultural development. It generally exhibits a positive relationship with economic growth; the higher the output value of the primary industry, the higher the economic development capacity, while a lower output value indicates a lower level of economic development. However, when considering the three major industries collectively, the proportion of the primary industry's output value in the economy is significantly lower than that of the secondary and tertiary industries, which is consistent with the economic development trends in many countries. If the primary industry's development level is high in an economy, it indicates a lower level of industrialization and relatively backward industrial development. Therefore, while pursuing the development of the primary industry, attention should also be paid to its proportion in economic growth, and excessive pursuit of high output value should be avoided. Looking at China's contribution of the primary industry to GDP from 2018 to 2022, there is a rising trend, indicating its importance in GDP growth and its linkage to China's policies, underscoring its significant role in driving GDP.

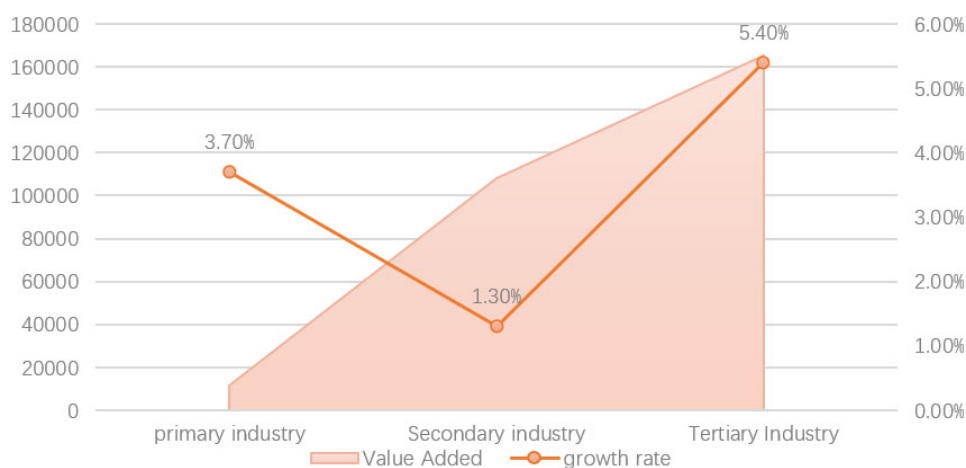
The secondary industry mainly refers to the manufacturing and construction sectors, which are considered as the dynamic barometers of economic development. It exhibits a positive relationship with economic growth and mainly impacts economic development through two pathways: the internal structure of the industry (such as the proportion of light and heavy

industries) and the product structure (the proportion of different categories of products). Additionally, the degree of technological innovation in energy use often has a positive effect on economic development, particularly when renewable or clean energy sources are employed. The high-quality development of China's economy is closely tied to the growth of the secondary industry's output value, with electricity consumption in industry being a critical indicator. Looking at the growth rate of industrial electricity consumption in the past three years, China's industrial electricity consumption has grown three times faster than GDP, indicating an upward trend in economic development. Furthermore, the electricity elasticity coefficient is used to further measure the degree to which electricity consumption reflects economic development. Comparing the electricity elasticity coefficient to one can gauge economic growth; if the coefficient is greater than one, it indicates a favorable trend in economic development, while if it is less than one, it implies that electricity consumption growth is slower than GDP growth, signifying a decline in economic growth.



**Figure 1.** Comparison of China's GDP Growth Rate and Electricity Consumption Growth Rate from 2011 to 2022

The tertiary industry mainly comprises modern services, and literature review suggests that there is a unidirectional causal relationship between the tertiary industry and economic growth. In other words, the development of the tertiary industry plays a certain role in economic growth, but conversely, economic growth does not have a significant impact on the growth of the tertiary industry. The output value of the tertiary industry exhibits a synchronous trend with economic growth. The faster the increase in the output value of the tertiary industry, the greater the potential for economic development. Conversely, a slower pace of development in the tertiary industry indicates lower economic development capacity. Furthermore, in terms of the contribution of the three major industries to the economy in China, the tertiary industry has a greater impact on economic growth than the primary industry but is smaller than the secondary industry. However, with economic development, the role of the tertiary industry in driving economic growth is gradually surpassing that of the secondary industry, becoming the primary force behind economic growth. Looking at the first quarter of 2023, the value added in the tertiary industry has shown the largest increase and the fastest growth rate.



**Figure 2:** Development Levels of Various Industries in China in the First Quarter of 2023

General budget revenue is one of the main sources of a country's income and mainly includes various forms of tax revenue. It exhibits a positive correlation with economic growth. Typically, as people's income levels improve, the corresponding increase in tax payments leads to higher government tax revenue, reflecting a better level of economic development. Conversely, when people's income levels are lower, tax payments decrease, resulting in lower government tax revenue and indicating poorer economic development. According to the Ministry of Finance's report on China's fiscal revenue and expenditure in 2022, China's general public budget revenue increased by 0.6% compared to the previous year, indirectly reflecting a positive trend in China's economic development.

Household consumption level refers to individual or family expenditures on goods and services, and its significance in reflecting economic growth cannot be understated. Consumer spending exhibits a year-on-year growth relationship with economic growth. The larger the consumer spending, the faster the economic growth during the same period, and vice versa. Going a step further from consumer spending, Engel's coefficient reflects the quality of economic growth. A lower Engel's coefficient indicates that the proportion of food expenditure in total household expenditure is smaller, with a larger share allocated to other areas. This suggests that people's living standards are higher, reflecting a better level of economic development, and vice versa. Looking at China's consumer spending data over the past five years, it generally shows an increasing trend, indicating a higher level of economic growth.

### 3. CURRENT STATUS AND SHORTCOMINGS OF THE DIGITAL ECONOMY

#### 3.1. Analysis of the Current Status of the Digital Economy

The development of the digital economy has injected new vitality into the real economy. Leveraging digital technologies such as the internet and artificial intelligence, the digital economy has transformed traditional production methods, accelerated the development of the real economy, expanded the scope of real economic development spatially, extended the industrial chain, and promoted the integration of market entities. The application of digital technology can be seen as a service to production enterprises. In this process, specialized companies should provide specialized services based on the needs of real enterprises, offering reasonable solutions. Within manufacturing enterprises, some departments originally engaged in productive services have been gradually separated due to the development of digital technology, such as industrial design, logistics, transportation, warehousing, and information service departments. These internal service sectors have taken the form of specialized

productive service industries. This division of labor can promote enterprise development, increase overall output value, and is an effective improvement. Digital technology has, on the one hand, reduced market transaction costs and, on the other hand, lowered organizational costs for enterprises. The evolution of enterprises in the future is uncertain. Productive services of digital technology require specialization and economies of scale. Moreover, diversity and small, yet specialized enterprises are also trends in enterprise evolution. The new forms of the digital economy and the broad market space it provides enable various enterprises to achieve significant growth in this space.

As a rising major nation in the new era, China's economic development level has achieved remarkable success, both in terms of global economic rankings and in the history of economic development. China possesses the world's most comprehensive industrial system, forming a modern industrial category with Chinese characteristics. Some manufacturing industries have surged to the forefront of the world. In the IFM forecast for 2022 GDP development, China ranks second with \$19.91 trillion, only \$5.44 trillion behind the United States, which appears to indicate that China's economic development lags behind the United States. However, a closer examination reveals that the real economy in China accounts for 42% of the total, whereas the United States only accounts for 18%. China's real economy is 2.4 times that of the United States. Furthermore, when looking at the core of the real economy, the manufacturing industry, China's manufacturing industry is twice the size of the United States'. Therefore, it can be concluded that China's real economy holds a dominant position in the world's development. Additionally, China's real economy development displays resilience. Since the reform and opening-up, China's real economy has shown a generally favorable development trend and has been less affected by international financial crises compared to other countries. Moreover, with long-term policy support, China's real economy continues to advance from the perspective of modernization.

**Table 1.** Latest Growth Rate Forecasts from the World Economic Outlook

(Real GDP, annual percent change)	Predictive value		
	2021	2022	2023
World Output	6.1	3.6	3.6
Developed Economies	5.2	3.3	2.4
USA	5.7	3.7	2.3
Euro Zone	5.3	2.8	2.3
Germany	2.8	2.1	2.7
France	7	2.9	1.4
Italy	6.6	2.3	1.7
Spain	5.1	4.8	3.3
Japan	1.6	2.4	2.3
U.K.	7.4	3.7	1.2
Canada	4.6	3.9	2.8
Other Advanced Economies	5	3.1	3
Emerging Markets and Developing Economies	6.8	3.8	4.4
Emerging Markets and Developing Economies in Asia	7.3	5.4	5.6
China	8.1	4.4	5.1

### 3.2. Shortcomings in the Development of the Digital Economy

Firstly, in recent years, China has entered a new era of the Internet of Everything, and the rapid development of informatization has brought development opportunities to the virtual economy. In addition, the high liquidity and low cost of virtual economy funds have created a favorable development trend in China. However, the excessive development of the virtual



economy can lead to domestic economic imbalances, especially when financial crises occur, it can trigger economic bubbles and pose significant harm to the economy. Therefore, the country needs to adopt macroeconomic control measures to balance the real economy and the virtual economy.

Secondly, in the context of the interaction and integration of the digital economy and the real economy, there are still issues of technological backwardness and data elements lagging behind industrial development. The depth and breadth of integration are insufficient, reflected in regional development disparities. In rural areas, there are still problems of lagging artificial intelligence and 5G network construction. There is a shortage of high-tech technical talent, and there are significant differences in integration with different industries.

Thirdly, rising costs are impacting the real economy. Compared to the virtual economy, the real economy inherently has higher costs, and with the rising costs, the development of the real economy is subject to a certain degree of impact.

Therefore, China still has a long way to go in achieving high-quality development in the modern real economy. Despite the challenges ahead, under the leadership and support of the country, the development of China's real economy will continue to improve.

## **4. POLICY RECOMMENDATIONS**

The real economy, as the foundation of a country's economy and a critical pillar of national strength, can assist in the steady advancement of China's characteristic modernization process when developed with high quality. Industrial development, as a significant driver, has the potential for tremendous impact.

### **4.1. Optimize the Industrial Chain and Strengthen Enterprise Transformation and Upgrading**

We need to deepen the supply-side structural reform, expand domestic demand, strengthen domestic circulation's endogenous dynamics and reliability, and enhance the quality and level of international circulation [7]. China is a major player in the real economy. It has made remarkable achievements in real economic development, steadily built a technological innovation system, improved the market economy system, matured the industrial chain, possesses an abundant workforce, and has a vast consumer demand market. However, there are disadvantages, such as an incomplete technological innovation system at the bottom of the industrial chain. Moreover, in the era of economic globalization, the third industrial revolution is in full swing. China faces significant opportunities and challenges, particularly by focusing on its own development, improving the level of industrial development, and creating development space.

### **4.2. Enhance the Ability of Technological Services for the Real Economy and Reduce the Burden on Real Enterprises**

Technological modernization is an important part of China's style of modernization, the direction of its progress, and a powerful driver of its style of modernization [8]. A strong country is built on strong technology, and technology is always an essential driver and engine for the prosperity and development of a nation [9]. Research has found that the growth rate of the three major industries can largely reflect the development of the real economy. However, there is currently a relative lag in the integration of technology and industry, which needs to be addressed properly. Concerning issues of overcapacity in enterprise production and the limited development space in traditional industries, technology development can significantly promote the transformation of traditional industries, the cultivation of emerging industries, and the development of the real economy.

### 4.3. Utilize Industrial Research to Extend the Open Space for High-Quality Development of the Real Economy

The development of a socialist market economy requires a high degree of openness, which mainly includes three aspects: broader scope, wider areas, and deeper levels of openness. Given the current development situation, the development of China's real economic industries precisely requires an expansion of the depth and breadth of industrial development, the establishment of a sound industrial system, the expansion of development space, and the promotion of high-quality development of the real economy.

### 4.4. Strengthen Top-Level Design to Support the Development of the Real Economy

Guided by the spirit of the 20th National Congress of the Communist Party of China, multiple measures are needed to ensure the development of China's real economy. From the perspective of the three major industries, they have become industries with tremendous development potential in China, with relatively large industry clusters, and indigenous brands are rapidly emerging. However, high operating costs and serious overcapacity issues have accumulated. In response to the deep-seated problems in industrial development, it is also emphasized that the state should introduce policies to guide the development of the real economy, enhance enterprise enthusiasm, and provide endogenous dynamics for industrial development. The development of the real economy.

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## REFERENCES

- [1] J. Chen: Research on the Creation Process, Characteristics, and Practical Plans of the New Path of China's Economic Modernization, Qinghai Social Sciences, (2022) No.2, p. 96-102.
- [2] K.H. Zhang: Innovative Mechanisms for the In-Depth Integration of Digital Economy and Real Economy in the "Fourteenth Five-Year Plan" Period, Economic System Reform, (2022) No.4, p. 88-94.
- [3] X.M. Gong: *A Study on the Effectiveness of the New Monetary Policy on Financing Relief for China's Real Economy* (MS., Shandong University, China 2020), p. 1-67.
- [4] D. Zhang: Research on Financial Early Warning of Manufacturing Enterprises Based on Neural Network Optimization, Chinese Collective Economy, (2019) No.20, p. 125-127.
- [5] J. Xu, J. He: Causes and Governance of Long-term Structural Supply and Demand Imbalances in Manufacturing, Theoretical Journal, (2021) No.4, p. 79-87.
- [6] W. Sun: Promoting the Synergetic Development of Technological Innovation and the Real Economy, China Science and Technology Forum, (2020) No.6, p. 5-7.
- [7] F.P. Liu, Z.C. Wu: Political Economy Analysis of Chinese-style Modernization: Common Prosperity and Its Constructive Logic, Xinjiang Social Sciences, (2022) No.1, p. 29-37.
- [8] Y.X. Hong: Constructing the Theoretical System of Modernization of the Governance System for Scientific and Technological Innovation in the New Era, Science of Science and Management of Science and Technology, (2022) No.6, p. 24-43.
- [9] S. Dun, Q. Chen, T. Jia, et al.: Research on the Construction of Theoretical System for the Modernization of Scientific and Technological Innovation Governance System under the New Situation, Science of Science and Management of Science and Technology, (2022) No.6, p. 24-43.