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Scientific Technological Innovation Boosts Sustainable Development China Economy High Quality

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ABSTRACT

Science and technology are the primary productive force. Scientific and technological innovation is the first driving force for development, the strategic support for building a modern economic system, the key to breaking the bottleneck of economic growth, the key to building a beautiful China, and the core factor for boosting China's high-quality economic development. The sustainable development of high-quality economy is to shift from pursuing quantity to focusing on quality, and from scale expansion to structural optimization.

Keywords: *Scientific and Technological Innovation; Economy; Development*

I. INTRODUCTION

Today's world is experiencing great changes in the economic structure, especially China's economy, which is facing a strong rebound. China's "14th Five-Year Plan" clearly States that by 2035, China's total GDP will double that of 2020, and per capita GDP will increase from US \$10500 to US \$21000. The realization of this goal indicates that China will enter the income level of moderately developed countries determined by the United Nations. However, to achieve this goal, we must have a correct understanding of the "new development stage, new development concept and new development pattern", that is, the main contradiction has shifted to the development mode, and to solve poverty, we must rely on scientific and technological innovation.

II. RESEARCH METHOD

I have carefully observed the development and changes of contemporary Chinese society, consulted a lot of literature on scientific and technological innovation, and understood the connotation and essence of scientific and technological innovation; And further in-depth reading of the report of the 19th National Congress of the Communist Party of China on scientific and technological innovation, understand the important role of scientific and technological innovation in the high-quality and sustainable development of contemporary social economy, it is the first driving force of social and economic development, without scientific and Technological Innovation, there will be no high-quality and rapid development of contemporary economy. Therefore, I have come to the conclusion that scientific and technological innovation promotes the sustainable development of China's economy with high quality.

III. DISCUSSION

3.1 The Connotation and Essence of Scientific and Technological Innovation

Productivity is the ability of human beings to conquer and transform nature, and science and technology are productivity, which has always been the view of Marxism. Science is the basis of the development of modern productive forces, which changes the quality and quantity of these elements through extensive and in-depth penetration into the various elements of the productive forces system. As the materialization of science and the intermediate link between science and production, technology has the conditions and nature to directly enter the production process and become a real productive force. The application of science and the invention of new technologies have become the main force to promote the development of production and an important factor affecting social progress since modern times. It is a fact that "science and technology are the primary productive forces". With the development of modern science and technology, the relationship between science and production has become closer and closer. Historical materialism insists

that productive forces are the ultimate decisive force in social development. Modern science and technology, through the formation of growth, transformation and penetration mechanisms, has penetrated into the whole process and every link of the operation of human society, and has become the fundamental driving force for social development.

As China enters a new era, great changes have taken place in the external environment and internal conditions of its development. The Party Central Committee and the State Council attach great importance to accelerating scientific and technological progress and innovation under the new situation. The ability of scientific and technological innovation determines the speed and quality of the development of the national economy, and economic development can provide a strong material guarantee for scientific and technological innovation. The Eighteenth National Congress of the Communist Party of China put forward the strategy of "innovation-driven economic and social development" to speed up the pace of building a new country and improve the quality of people's lives. General Secretary Xi Jinping emphasized that "to implement the strategy of innovation-driven development is to promote comprehensive innovation with scientific and technological innovation as the core", highlighting the strategic position of scientific and technological innovation.

In the report of the Nineteenth National Congress of the Communist Party of China, the goal and direction of scientific and technological innovation are clearly defined. General Secretary Xi Jinping clearly put forward the "four orientations" of scientific and technological innovation, namely, "facing the world's scientific and technological frontiers, facing the main economic battlefield, facing the major needs of the country, and facing people's lives and health". At the same time, General Secretary Xi Jinping also pointed out: "Science and technology is a powerful weapon, the country depends on it to be strong, enterprises depend on it to win, and people's lives depend on it to be good. These" four orientations "and" strong "," business "and" good "answer the question of" why we need scientific and technological innovation ", highlighting the value position of scientific and technological innovation.

In addition, General Secretary Xi emphasizes the important role of science and technology innovation, emphasizes the implementation of talents' strong country strategy, creating a good talent to innovate the ecological environment, collecting the heavens, fully stimulating the enthusiasm, initiative, creative of the majority of scientific and technological personnel. More clearly promote the method path of technology innovation, in promoting the reform of scientific and technological system, improve science and technology governance, proposing and promoting a series of institutional innovation and institutional arrangements.

3.2 Scientific and Technological Innovation is the Key to Breaking the Bottleneck of Economic Growth.

According to the theory of economic growth, the motive force of economic growth lies in the accumulation of capital, the increase of labor force and the improvement of production efficiency. Under the condition of a certain level of science and technology, neither the expansion of capital nor the increase of labor force can be an infinite process. Given time, there will always be a "ceiling". Only by bringing about the improvement of production efficiency through scientific and technological innovation is an infinite process of continuous creation on the basis of knowledge accumulation. It can provide inexhaustible impetus for economic growth. At the symposium of scientists held in September 2020, General Secretary Xi Jinping stressed: "China's economic development and improvement of people's livelihood need more scientific and technological solutions than ever before, and need to strengthen the first driving force of innovation.". "Starting from the theory of economic growth, we can have a deeper understanding of General Secretary Xi Jinping's important exposition on scientific and technological innovation, which has strong theoretical support and long-term strategic vision.

Recently, China has become the second largest economy in the world, but it should also be clearly recognized. At present, there is still a big gap between China's scientific and technological innovation and developed countries in supporting economic development, which objectively determines that we must put innovation at the core of the overall national development. But we have to realize. China's economy has shifted from the stage of high-speed growth to the stage of high-quality development, and is in the key period of transforming the mode of development, optimizing the economic structure and transforming the driving force of growth. The situation that the core technology of key components is controlled by others has not fundamentally changed. To make up for many shortcomings and achieve high-quality development, we need to further promote scientific and technological innovation.

My country's economy has experienced high-speed growth in reform and opening up, and if you want to maintain long-term growth in the future, you must rely on technology innovation to shape new advantages. That is to say, the extensive development of the old road is unsustainable, only relying on scientific and technological innovation to achieve high quality development, in order to break through the economic growth bottleneck, implement the second hundred years of struggle.

3.3 Scientific and Technological Innovation is the Fulcrum of Implementing the New Development Concept

To promote high-quality development, we must unswervingly implement the new development concept, constantly solve development problems and plant development advantages. Taking scientific and technological innovation as the fulcrum of the new development concept will help to break through the risks and challenges on the way forward.

From the perspective of innovation and development, scientific and technological innovation is the core of comprehensive innovation. In terms of the power of innovation and development, scientific and technological innovation provides the most fundamental and lasting power source. Every round of scientific and technological revolution in history has greatly improved production efficiency and productivity, and then promoted the transformation

of production organization and production relations. In terms of the way of innovation and development, scientific and technological innovation provides the most basic way of innovation. In terms of the potential of innovation and development, scientific and technological innovation provides endless possibility space.

From the perspective of coordinated development, scientific and technological innovation is the key to overall planning and balance. To solve the problem of unbalanced and insufficient development, an important aspect is to solve the problem of uncoordinated development between regions and between urban and rural areas. Among them, scientific and technological innovation is an important way to improve the coordination and balance of development. The research shows that through the diffusion of scientific and technological knowledge among regions and promoting the coordinated development of science and technology among regions, we can effectively narrow the differences of regional development and form a coordinated and efficient regional scientific and technological innovation division system, so as to improve the innovation ability of the whole country.

From the perspective of green development, scientific and technological innovation is the key to building a beautiful China. Scientific and technological innovation, especially green technological innovation related to environmental governance, will play a more important role in promoting green development. There is a trade-off between stable growth and carbon emission reduction to achieve the goal of carbon peak and carbon neutrality. Green technological innovation can not only significantly inhibit carbon emissions, but also promote economic growth, which is helpful to deal with the relationship between development and emission reduction. Green technology innovation is not only the key to green development.

It is also a new economic growth point in the future. From the perspective of open development, scientific and technological innovation is crucial to the new development pattern. From the perspective of building a new development pattern, self-reliance in science and technology is like the fulcrum of "leveraging the earth", and only when this fulcrum is strong, can the domestic circulation be established. At the same time, to realize the mutual promotion of domestic and international circulation, we need to open up at a high level and form new advantages in international cooperation and competition, which means that China should move from the low-end to the high-end of the global value chain. To achieve such a transition in the value chain, the most important thing is to promote scientific and technological innovation and rely on scientific and technological innovation to improve the global competitiveness of Chinese products and services.

From the perspective of sharing, technology innovation is a common wealthy lever. Realizing common prosperity needs to be divided into "cake" during the process of constantly "cake". It is necessary to continuously promote technology innovation, realize economic development, quality change, efficiency change, dynamic change, and constantly do the big "cake", for secondary distribution, three distribution creative conditions. Realize common prosperity, smooth flow channels, to create a chance to create a chance to create a development environment involved in everyone. Promoting the righteousness of scientific and technological innovation, is to improve the scientific quality and skill levels of ordinary workers, which can provide a continuous endogenous motility for promoting common prosperity.

3.4 High-quality Sustainable Development is a Fundamental Change in the Concept and Mode of Development.

High-quality sustainable economic development is a fundamental change in the concept and mode of development, from the pursuit of quantity to focus on quality, from scale expansion to structural optimization, from factor-driven to new innovation-driven, is its distinct characteristics and basic path.

At the micro level, high-quality development is mainly reflected in the quality of products and services, and the product structure has shifted from low technology content and low added value to high technology content. High added value; from the comparison of input and output, less input, more output, and good benefits; in terms of economic benefits, from high cost and low efficiency to low cost and high efficiency. This is ultimately reflected in the substantial increase in corporate profits and the continuous enhancement of market competitiveness.

At the meso level, high-quality development is mainly reflected in the quality of industrial and regional development, and in the transformation of ecological environment from high emissions, high pollution to circular economy and environment-friendly economy.

At the macro level, high-quality development is mainly reflected in the improvement of the overall quality and efficiency of the economy.

Usually measured by total factor productivity, the mode of production has changed from resource-intensive and labor-intensive industries to technology-intensive and knowledge-intensive industries.

There are two ways of economic growth: one is to increase the input of resource elements to promote the expansion of output scale, that is, quantitative growth, on the premise of unchanged technology and equipment; Secondly, through scientific and technological innovation, we can improve the efficiency of resource allocation and expand the quantity while improving the quality. On the surface, the input of resource elements will not increase or increase little, but the great role of science and technology will promote both economic quality and quantity to take off.

Scientific and technological innovation has contributed to the rapid development of various fields in China. At the 2020 Zhongguancun forum, participating scientists and business leaders said that for a long time to come, China will mainly improve production efficiency through scientific and technological innovation and bring comprehensive economic growth.

Robin Li, chairman and chief executive officer of Internet giant Baidu Inc, said at the Zhongguancun forum that

China's economy will grow at a high speed in the coming years. In this process, the AI industry will play an indispensable and even crucial role. Robin Li said, "the intelligent economy driven by AI is the new engine to pull the global economy up again, and it will become a new label for China's economy in the next 10 years." Robin Li predicted that with the continuous application of AI technology, it will completely change our mode of production. For example, in the field of transportation, the construction of intelligent transportation infrastructure based on vehicle road coordination can improve the traffic efficiency by 15% - 30%. With technological progress promoting the gradual improvement of intelligent transportation system, China's first tier cities will no longer need purchase and travel restrictions in the next five years, and the problem of traffic congestion can be basically solved within ten years.

Beixing (Beijing) photon technology Co., Ltd., headquartered in Beijing, demonstrated its Lidar Technology (lidar, a detection system that uses radar principle but uses laser as light source) at this forum. This product and its solutions can be used in smart rail transit, civil aviation and other fields. Li Yuan, founder and chief executive of North awakening, said that China has shown great willingness and determination in building international technology and innovative cooperation platform in order to solve the global problems brought by COVID-19. "We have been trying to achieve a safer, more efficient and more reliable transportation system through high-tech lidar." Li Yuan said, "We are very honored to participate in the 2020 Zhongguancun forum, which is also the second international scientific and Technological Innovation exchange platform held offline by China after the service trade fair since the epidemic, which is more breakthrough than previous ones. This shows that China is actively facing challenges with a win-win mentality and building an international technological innovation exchange platform for domestic and foreign enterprises, which is more conducive to the transformation of international scientific and technological achievements will accelerate the empowerment of the economy. " Relying on scientific epidemic prevention measures, China has not only effectively controlled the epidemic, but also actively encouraged enterprises to rely on their own core technology to form an enterprise "moat" and resume production as soon as possible. Since the second half of this year, Beixing has fully invested in the performance upgrading and component localization of horn-x2, a high-performance lidar. Through its advanced three-dimensional environment sensing technology, Beixing has deeply enabled the transportation infrastructure to achieve the overall improvement of accurate perception, accurate analysis and fine management. "

At present, China's economy is in the initial stage of high-quality development. In the field of agriculture, after years of efforts, we have made continuous breakthroughs in a number of key technologies, such as water saving, large-scale breeding, new variety breeding and so on. It has promoted agricultural production and efficiency. Through the implementation of major special projects such as dairy industry and deep processing of agricultural products, the level of agricultural industrialization has been improved and the adjustment of rural industrial structure has been promoted. The rural development plan represented by spark plan has achieved remarkable results in the transformation of agricultural scientific and technological achievements and farmers' training, which has contributed to the all-round development of rural economy and society. In the industrial field, closely focusing on promoting the optimization and upgrading of the industrial structure, through joint research and integrated innovation, we have made major breakthroughs in the key technical fields of some major equipment, broken the long-standing foreign technical blockade on China, and made important progress in the development of technologies and equipment urgently needed for the construction of major national projects such as the "west to East power transmission", "south to North Water Transfer" and the Three Gorges Project, It has provided strong scientific and technological support for national economic construction, accelerated the pace of industrialization driven by informatization, fully implemented the manufacturing informatization project, and greatly improved the informatization level and economic benefits of China's manufacturing industry.

Then, in order to promote high-quality economic development, continuously improve total factor productivity, continuously enhance the new driving force and vitality of development, and implement it in the production and operation of enterprises, we should not only continuously improve the quality of products and services, but also continuously launch new products and services that can better meet the market demand; We should not only continuously reduce the cost of products and services, but also reduce the damage to the ecological environment as much as possible. To realize these requirements, the most fundamental thing is to rely on scientific and technological innovation. Science and technology are indispensable strategic resources for economic development, and scientific and technological innovation is the first driving force leading development. Every scientific and technological revolution in human society will bring great economic and social development. Through scientific and technological innovation, we can partially or completely replace traditional resources, change the combination of factors, and improve the efficiency of resource utilization; Through scientific and technological innovation, we can enlarge the role of various factors of productivity, improve total factor productivity, and greatly improve the quality and efficiency of economic development; Through scientific and technological innovation, we can establish new advantages such as new technologies, new products and new services, and comprehensively improve the vitality of economic development and market competitiveness; Through scientific and technological innovation, we can solve the prominent contradiction between resources, environment and development, and realize industrial upgrading and sustainable economic development. Therefore, the key to high-quality sustainable economic development lies in scientific and technological innovation, which will provide new growth space, key focus and strong support system for high-quality sustainable development.

IV. CONCLUSION

In short, the issue of sustainable economic development is a common problem facing the world, especially developing countries. Mankind has realized that the simple pursuit of economic growth is not a correct development path. The economy and society must develop in harmony, and man and nature must coexist harmoniously. Only relying on scientific and technological progress and scientific and technological innovation can we realize the high-quality, sustainable, coordinated and healthy development of China's economy and society.

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