The Two-Way Promotional Relationship between New Quality Productive Forces and high-standard opening-up

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Abstract. As a new form of productivity, new quality productive forces is an innovative concept of China 's high-quality development and will also become the core driving force for China 's economic development. High-standard opening-up is also a new concrete measure for China to open in the new era. Through the respective connotation and development context of new quality productive forces and high-level opening-up, this paper combines the features of the two, and analyzes the internal logical relationship between the two through theoretical analysis. It is concluded that new quality productive forces promote the improvement of export competitiveness and then affects the high-standard opening-up, and the linkage between high-standard opening-up and dual circulation is closely related. High-standard opening-up promotes the interaction and integration of domestic and foreign economic systems, realize the organic connection and common development of domestic and international dual circulations, and the development of dual circulations reacts to the improvement of new quality productive forces. That is, there is a two-way promotion relationship between high-standard opening-up and the development of new quality productive forces. Finally, combined with the relationship between the two, it puts forward targeted policy advice on how to promote high-standard opening and promote the development of new quality productive forces.

Keywords: new quality productive forces, high-level opening, high-quality development, a "dual circulation" development pattern.

1. Introduction

Productivity, as a means of creating social wealth and promoting comprehensive human development, cannot be developed without the promotion of science and technology. And innovation is the first driving force to promote scientific and technological progress, which is playing an irreplaceable role in the intersection of the new round of scientific and technological revolution and industrial revolution today. Throughout the development of the successive scientific and technological revolutions, each technological revolution has changed the shape of production tools, production objects and production methods, and has become the core kinetic energy to promote economic progress. How to promote our country in the new science and technology revolution to achieve bend overtaking, to promote the high-quality development of the economy has become the problem of the times. In the face of the problems of the times, based on the new development concept and China's national conditions, China has innovated the theory of productivity and put forward the concept of new quality productive forces, which organically combines the development of productive forces with the new technological revolution, and is in line with the current trend of scientific and technological development and productive forces.

In this context, exploring the logical correlation between promoting high-standard opening-up and the development of new-quality productive forces will, on the one hand, help to promote China's opening up to the outside world to develop in depth, and give full play to the important role of new quality productive forces in promoting high-standard opening-up, and on the other hand, it will be conducive to revitalizing the flow of international factors and the influx of resources, and to promote the enhancement of productivity in China with a high standard of opening up and realize the cultivation of new-quality productive forces, growth. This is of great practical significance to the realization of Chinese-style modernization and the great rejuvenation of the Chinese nation.

2. Review of Literature

2.1. new quality productive forces

2.1.1. Theoretical basis: from productive forces to new qualitative productive forces

For the elements of productivity, Marx once pointed out that “the subject of labor, the object of labor and the means of labor are the three elements that cannot be bypassed in interpreting the concept of productivity” [1]. With the continuous development of human society, the means and objects of labor are no longer limited to the traditional material form, and science and technology have become the most active factors. In the face of the revolutionary changes in human society in the field of production technology.Along with the continuous development of the digital economy and artificial intelligence, new industries, new modes and new kinetic energies have continuously empowered the leapfrog development of productivity.China is based on historical materialism and Marxist political economy, advancing with the times, pioneering and innovative to make new interpretations of the constituent elements of new quality productive forces, and deeply analyze the operating mechanism of new quality productive forces. The emergence of “new quality productive forces” is a great leap forward in the Chineseization of Marxism.

2.1.2. The scientific content of new quality productive forces

The scientific definition of the new quality of productivity, that is, “new quality productive forces is the leading role of innovation, away from the traditional mode of economic growth, productivity development path, with high-tech, high-efficiency, high-quality features, in line with the new concept of development of the advanced productivity of the texture” [2]. In the study of the relationship between new quality productive forces and scientific and technological innovation, Wei Chonghui (2023) discusses the connotation, history and practice path of new quality productive forces, and believes that new quality productive forces is based on the new round of scientific and technological revolution and industrial change, based on the reality of China's current industrial layout and strategic reality, and draws a blueprint for high-quality development process. The formation and development of new quality productive forces need to adhere to the scientific and technological innovation-driven development [3]. The organic combination of the concept of innovative development, innovation-driven development and new quality productive forces clarifies the importance of scientific and technological innovation in new quality productive forces. Zhou (2024) points out that new quality productive forces is closely related to scientific and technological innovation and industrial change, which highlights the goal of China's construction of a modernized industrial system in the stage of high-quality development in order to enhance national competitiveness. New quality productive forces has also become an important direction for countries to develop, and is an important part of the international competitiveness of industries [4]. Its research extends to the impact of new quality productive forces on international competitiveness, which provides important conditions for the research of this paper.

There is both an objective link and a significant difference between productive forces and new quality productive forces. With regard to the linkage between productive forces and new quality productive forces, productive forces are the ability to transform nature in the production process by relying on the close integration of labor and the means of production. As a product of scientific and technological progress, new quality productive forces is the inheritance and development of the traditional theory of productive forces. Regarding the difference between productivity and new quality productive forces, compared with productivity, the key to new quality productive forces is “quality”, one of which is quality and the other is efficiency [5]. In terms of quality, digital elements continue to empower productivity, and its development will increase total factor productivity and promote productivity to a new level. Its use will also innovate the mechanism of productivity development, which will promote the development of new industries, new models, new kinetic energy, and improve the international competitiveness of industries. From the point of view of efficiency, the new quality productive forces will realize efficiency gains while improving quality, achieving lower

production costs, extending the industrial chain, increasing added value, providing high-quality supply, and finally realizing the enhancement of the international competitiveness of the industry. If China is to realize social progress and sustained economic development, it must grasp the link between new quality productive forces and productivity, focusing on improving the quality and effectiveness of development, and promoting the cultivation and development of new quality productive forces.

2.2. High-standard opening-up

2.2.1. Development history of high-standard opening-up

Openness is a feature of the development of the times and an essential path to national prosperity and development. China has become one of the fastest-growing economies in the world, benefiting from the Chinese government's persistent international development policy of opening up to the outside world. While opening up the huge domestic market, it relies on scientific and technological progress to realize a leap in the value chain and product quality in the international division of labor. High-standard opening-up has become an important deployment to further promote opening up to the outside world and high-quality development.After being put forward, “high-standard opening-up” has been continuously deepened and developed. The “14th Five-Year Plan for High-Quality Development of Foreign Trade” proposes to “promote high-quality development of trade as the theme, take trade innovation and development as the driving force, coordinate trade development and security, promote high-standard opening-up, and accelerate the cultivation of new advantages in participating in international economic cooperation and competition”. “One of the key tasks of the economic work in 2024 is to expand high-standard opening-up.

2.2.2. Connotation of high-standard opening-up

Today's geopolitical landscape is undergoing profound adjustments, and high-standard opening-up is opening up to the outside world on a larger scale, in a wider field, and at a deeper level. Domestic scholars Sang Baichuan and Wu Yunxin (2024) believe that high-standard opening-up can be embodied at the levels of productive forces and production relations, and that high-standard opening-up at the level of productive forces refers to the larger scale and higher quality of cross-border flows of commodities, services and factors. A high level of openness at the level of production relations means bench-marking against high international economic and trade rules, regulations, management and standards. The degree of trade and investment liberalization and facilitation is high, and the economic system and economic policies are highly transparent and predictable. In turn, a first-class business environment of marketization, rule of law, and internationalization is formed. High-standard opening-up at the level of international economic relations can deeply participate in the formulation of international economic and trade rules and global economic governance, and safeguard the open world economy [5].At the same time, the development of the digital economy has gradually risen as a national strategy. Liu Yuanchun (2023) believes that the new way of digitization and greening openness is an area where we have the ability, motivation, and also the least resistance. Based on scholars' research, this paper argues that high-standard opening-up takes the construction of a new domestic and international double-cycle development pattern as the basic requirement, the promotion of the free trade process as the strategic goal, the system-based opening up as the prominent feature, and the new wave of digitalized and green trade as the leading pivot point .

2.3. Linkage between new quality productive forces and high-standard opening-up

Domestic scholars Hong Junjie (2024) mentioned the unidirectional promotion effect of high-standard opening-up on new quality productive forces, and he pointed out that high-standard opening-up provides conditions for optimizing the allocation of resource factors on a global scale. This is conducive to actively expanding imports, introducing advanced factors of production, and improving the core competitiveness of industries, accelerating the development of new trade patterns and new business models, which in turn promotes the development of new quality productive forces. In terms

of the interrelationship between new quality productive forces and high-standard opening-up, Jia Ruoxiang (2024) analyzes it from the perspective of the promotion of the domestic and international double cycle on the basis of clarifying the qualities of new quality productive forces, like high technology, high efficiency, and high quality. While enhancing the endogenous power and reliability of the domestic macrocycle, new quality productive forces should also deeply participate in the global industrial division of labor and cooperation through a high level of opening up to the outside world. It is necessary to attract global resource elements through the domestic macrocycle, but also to enhance the linkage effect on the two kinds of resources in the domestic and international markets, and realize the mutual promotion of the two [6]. Few scholars have analyzed the connotation of high-standard opening-up in depth, and argued the relationship between new quality productive forces and high-standard opening-up in depth and comprehensively. The innovation of this paper lies in the integration and improvement of the connotation of new quality productive forces and high-standard opening-up, and the systematic argumentation of the relationship between the two according to its internal logic, which puts forward the theory of benign cycle of mutual promotion of new quality productive forces and high-standard opening-up.

3. Theoretical analysis

3.1. New quality productive forces promotes the improvement of export competitiveness

Productivity, as an important symbol of the degree of social progress and the level of social development, its integration of social and natural forces through organized labor, in the integration, the labor subject, the labor object, the labor tool is an important factor in the interpretation of the concept of productivity. In the new era in the context of intelligence and digitization, laborers are not only producers, but also consumers, realizing the integration of production and marketing [7], expanding the scope of laborers, who both produce high-tech products and consume high-tech products, generating demand for high-tech products and emphasizing the importance of laborers in the production of that product, which makes laborers play a This makes laborers play a key role in promoting technological development; in the new factor theory of international trade,human capital said (Donald Keesing, 1966) pointed out that the development of high technology and the quality of labor is inextricably linked to the development of productive forces can not be separated from the development of high-quality labor force, and high-quality productive forces in the era of intelligence is the important foundation of the new quality productive forces. In the industrial society, the object of labor is mainly the material material of nature, and with the continuous progress of science and technology, it changes from material material to virtual object. China's industrial chain continues to deepen, is in an important stage of post-industrial industrial upgrading, through the change of the labor object in the elements of productivity will further promote the continuous breeding and development of new quality productivity forces in China. There is an important relationship between labor tools and social productivity, under the use of innovation chain, traditional production tools are constantly updated, showing the characteristics of digital media, internationalization and intelligence, and the emergence of subversive technology updates labor tools, promotes the qualitative change of productivity, and provides important conditions for the emergence of new quality productive forces.

The new quality productivity forces is characterized by high technology, high efficiency and high quality, and as a new stage of productivity development, the impact of the dynamic changes on technology will also play a role in international trade.From the product life cycle theory (Raymond Vernon, 1966), the emergence of new quality productivity forces with high technology as the fulcrum, promoting the emergence of new industries, new modes, and new dynamics. The innovative country in the production of a certain type of product will take the lead in the production of technological comparative advantage,in the face of the domestic competition in the same industry, the enterprise in order to further expand exports, the capital investment will also be further increased, the formation of economies of scale, and the unit cost is further reduced, and ultimately the role of a country in the The export competitiveness of innovative products is improved. From the national competitive

advantage theory (Michael E. Porter, 1990), a country's competitive advantage, is the competitive advantage of the enterprise industry, which is the advantage of the level of development of productive forces, and the key to competitive advantage lies in the ability to make the dominant industries to produce advantages, the establishment of dominant industries depends on the increase in productivity, and the source of productivity lies in the formation of innovative mechanism and the utilization of innovative technology.

3.2. Practical Path of Export Competitiveness to Promote High-standard Opening-up

The essence of export competitiveness is the ability to dominate the market and make profits with low-cost and personalized goods, which is ultimately due to the improvement of the economic base and the continuous improvement of the superstructure.

3.2.1. From the economic base

Firstly,The improvement of export competitiveness is conducive to breaking down technical barriers, perfecting the integrity and stability of the domestic industrial chain, and promoting the international cycle and the development of high-standard opening up to the outside world. Secondly, the improvement of export competitiveness reflects the improvement of the value of China's export products. High-value-added products promote the structure of China's commodity exports to a higher level and higher level, providing more power and support for high-standard opening up; thirdly, the improvement of export competitiveness is conducive to the promotion of greening, thereby breaking down green trade barriers such as carbon tariffs and promoting the development of high-standard opening up. In addition, through the development of low-carbon trade, China can work with other countries to carry out low-carbon technology research and development, market promotion and other cooperation, forming a mutually beneficial and win-win situation and further expanding the breadth and depth of a country's high-standard opening up to the outside world.

3.2.2. From the aspect of the superstructure

The improvement of export competitiveness is conducive to promoting the opening up of a country's trade goods, thus promoting opening up to a higher development level.According to the theory of international division of labor, the depth and breadth of the international division of labor not only determines the scale and speed of international trade development, but also determines the structure and content of international trade. China will focus on the development of trade in services, can occupy a favorable position in the international division of labor, so as to have a comparative advantage in certain products caused by high-tech. Meantime, the improvement of export competitiveness is conducive to promote the improvement of a country's economic and trade rules, thus promoting the high-standard opening-up to a higher level of development.The formulation of a country's economic and trade rules extends from pure tariff reduction to rules, management, standards, and other directions, which is more conducive to the creation of a favorable business environment and further promotes the opening-up at a high level. From the perspective of rational people, enterprises tend to prefer countries with low-cost and facilitation measures.

3.3. Linkage between high-standard opening-up and the "dual circulation" development

A high level of opening to the outside world is closely related to the linkage of the "dual circulation" development pattern, and the two are complementary and mutually reinforcing.

3.3.1. From the viewpoint of the domestic macrocycle

High-standard opening-up is conducive to the sustained, stable and efficient development of the domestic macro-cycle. On the one hand, high-standard opening-up promotes the transformation and upgrading of a country's industrial structure and puts a country in an advantageous position in the global industrial chain, which will be conducive to the international division of labor from a deeper and broader perspective and promote the rational allocation of resources;on the other hand, high-standard opening up to the outside world can bring in external resources such as capital, technology,

talents, which is helpful to promote the development and optimization of the domestic economy by absorbing the external resources, and thus enhances the vitality of the domestic cycle and promoting the structural adjustment and industrial upgrading of the domestic economy.

The domestic macro-cycle is also conducive to a higher standard of opening up. First, the domestic macro-cycle relies on the super-sized domestic market, which provides a large consumer group, a well-developed industrial system and a rich supply of resources, offering opportunities for various types of foreign-funded enterprises; second, through the strategy of expanding domestic demand, it is conducive to attracting more high-quality foreign investment into the domestic market. This not only brings advanced technology and management experience, but also promotes market competition and improves the overall level of the industry. At the same time, the unity of the market is conducive to breaking the monopolistic behavior of the industry, behaving a fair and reasonable market environment, and providing a more favorable development space for foreign capital.

3.3.2. From the perspective of the foreign macro-cycle

The high-standard of opening up to the outside world has promoted the development of the international macro-cycle. A high standard of opening up to the outside world expands the space of the domestic market.By opening up the market, domestic enterprises can better utilize the resources of the international market, expand the sales channels of their products, increase the export of their products and promote the development of the outer cycle. At the same time, domestic enterprises will continue to improve their own strength and competitiveness in the competition in the international market, further promoting the upgrading and development of domestic industries.

The international macro-cycle also promotes the development of high-standard opening-up.First, the international macro-cycle can promote the deep participation of enterprises in the global industrial chain, supply chain and value chain, thus strengthening the connection with the international market. Secondly, the international macro-cycle is conducive to promoting the liberalization and facilitation of trade and investment. By reducing trade tariffs, simplifying trade procedures and improving trade efficiency, it is conducive to stimulating the potential and demand for imports and exports, thus attracting more foreign investment into the Chinese market.

3.4. The construction of a new a "dual circulation" development pattern promotes the enhancement of China's new quality productivity forces

On the basis of adhering to a high-standard of opening to the outside world, realizing the construction of a new development pattern with the domestic macro-cycle as the main part and the domestic and international double-cycle promoting each other will also inevitably promote China's high-quality development and the cultivation and enhancement of new-quality productive forces.Marx's principle on the coexistence and succession of industrial capital forms [8] explains that the necessary condition for realizing the circulation of industrial capital is the smoothness of circulation, which is also an important feature of the double-cycle pattern.the fluency of the double cycle will enhance the efficiency of production factor flow and distribution, and micro enterprises as the market and micro subjects within the industry, under the improvement of the flow and distribution efficiency, the efficiency of their mutual division of labor, factor productivity and the output performance level of R & D inputs will also be significantly improved [9], and ultimately enhance the enterprise production efficiency and innovation enthusiasm; on the other hand, the improvement of the flow of efficiency will reduce the cost of the flow of cost, and thus reduce the cost of production, so that the enterprise production efficiency and innovation enthusiasm; on the other hand, the improvement of the flow of efficiency will reduce the cost of the flow of cost. on the other hand, the improvement of the flow of efficiency will also reduce the flow of costs, and then reduce the cost of production, so that enterprises can also invest more funds in the process of technological research and development of independent innovation,enhance competitiveness, and promote the development of the new quality of productivity forces.

Applying the catch-up-competition effect and the theory of latecomer's advantage to technology, there exists a technology leader and a technology follower in the international market, and the

technology follower is bound to carry out a certain degree of technological catching-up to improve industrial competitiveness and seek new economic growth points in order to realize the leap of self-generated productivity [10]. As the largest developing country, China is still lagging behind the world's advanced level in some high-end technologies, and the double-loop pattern provides China with an opportunity to catch up. China can give full play to its latecomer's advantage by introducing technology and equipment, absorbing international advanced production factors and narrowing the gap with developed countries. As an imperfectly competitive market, some enterprises have low production efficiency and backward technology, and the catching up of other enterprises will also force them to carry out technological innovation and improve the competitiveness of their own products in order to narrow the gap between their competitors, which will finally contribute to the enhancement of the new quality of productivity forces as well. It can be seen that the the "dual circulation" development pattern, as an important result and intermediate link of high-standard opening-up, has an important role in promoting the development of new quality productivity forces, and there is a two-way promotion relationship between high-standard opening-up and the development of new quality productivity forces.

4. Policy recommendations

4.1. Promote the development of new quality productive forces

(1) Focus on the main body of new quality productive forces and cultivate high-quality talents to lead the development of technology. The main body of productivity is a key link in the three elements of productivity, play a high-quality talent to lead and effectively improve the quality of the main body. Adhere to the role of the talent chain in the “four-chain integration” to provide inherent support for the development of productivity; deepen the reform of the talent development system and mechanism, focusing on strategic emerging industries and future industries. It will build a mechanism for the leadership of national strategic talents and a mechanism for scheduling cross-cutting, cross-institutional and multi-disciplinary training resources, promote cooperation between industries, universities and research institutes, and cultivate high-caliber talents with an international outlook and innovation ability.

(2) Upgrading the quality of new quality productive forces and adapting to new changes in labor targets to promote quality improvement. China should deeply promote supply-side structural reform, closely integrate the Internet, big data, and artificial intelligence with emerging industries, cultivate new industries, new modes and kinetic energies, and enhance R&D investment in products in cutting-edge fields such as new materials,energy, and intelligent manufacturing. On the other hand, it is necessary to strengthen the use of new elements such as digital and information, and to give full play to the important role of new elements in the development of new quality productive forces.

(3) Enhance the quality and efficiency of new quality productive forces and promote the innovation of labor tools to boost efficiency. Firstly, China should support the development of small and medium-sized enterprises with innovation potential and cultivate a group of innovative enterprises with core competitiveness. Secondly, China should vigorously improve the protection level of labor tools to promote the enthusiasm of labor tool innovation, and strengthen the protection of intellectual property rights; Thirdly, we should strengthen cooperation and exchange, promote the sharing and optimization of innovation resources, and at the same time, combine the actual problems of upstream and downstream enterprises to carry out the innovation of related tools.

4.2. Promoting high-standard opening-up

(1) Grasp the core of high-standard opening-up and keep a close eye on system-oriented opening-up. Firstly, promote a shift in the center of gravity of trade from goods to services, and establish a new model for the synergistic development of trade in services and trade in goods. Optimize the management system of trade in services, promote the coordination of service rules and regulations at the multilateral and regional levels, and consolidate the export advantages in traditional service

industries such as transportation and engineering construction, gather industrial resources, create special industrial clusters, and optimize the structure of export trade in services. Secondly, explore international and regional country-specific trade rules to enhance the main position. Enhance the openness energy level of the system, promote the mutual promotion of the domestic and the international economy from the supply-side and demand-side perspectives, realize the synergistic development of the internal and external functional transformation, better gather and allocate global resources, and build a higher level of open economy.Finally, accelerate the system-oriented opening up in the field of science, technology and innovation. It will play a leading role in the formulation of international rules on intellectual property protection, data privacy, cross-border flow of data, and scientific research ethics; enhance the modernization of science and technology management, and establish a unified national big market and a high-standard market system.

(2) Accelerate digitalization, promote new forms of trade, and facilitate new breakthroughs in productivity. Closely focusing on the establishment of policies related to circulation digitization, and accelerate the digital transformation of circulation as well as enhance the efficiency of cross-border trade. Increase digitalization research and innovation, and promote the combination of various forms of digitalization with trade. Apply blockchain technology to build a transparent and secure trade platform; promote the application of cloud computing in the field of trade to enhance trade efficiency; use artificial intelligence to optimize trade processes, conduct deep mining ,accurate forecasting of trade data, and optimize supply chain management.

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