

Suggestions for Encouraging Innovation and Developing New Quality Productive Forces¹

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Abstract: *To encourage innovation and develop new quality productive forces, I'd like to put forward several suggestions. First, it is necessary to leverage the decisive role of the market in allocating resources.*

Second, it is essential to respect intellectual property rights, including patents, trademarks, trade secrets, geographical markings, etc. In particular, we must respect the rights to the market exclusivity and independent pricing of patents, to provide enterprises and investors with stable market expectations and encourage invention, innovation, and entrepreneurship.

Third, the creativity of scientific and technological personnel must be stimulated. The relevant provisions of the Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements should be effectively implemented to allow scientific and technological personnel greater autonomy in the distribution of proceeds from the transformation of scientific and technological achievements, thus motivating scientific and technological researchers to invent and create.

Fourth, the protection of intellectual property rights must be strengthened. It is important to draw upon international practices and amend the relevant provisions of the Criminal Law of the People's Republic of China to criminalize the manufacture, transport, and sale of products infringing on intellectual property rights, determining charges according to actions and sentences according to consequences, and to abolish the prerequisites such as transporters, value of goods, motives, and serious consequences.

Fifth, institutional openness must be accelerated. It is significant to continue to promote reform through opening up, learn from advanced international experience, improve the market economic system and the macroeconomic regulation system, break down the institutional barriers that constrain innovation, to provide a more relaxed external environment conducive to innovation and development.

The world today is undergoing major changes, and the global political and economic landscape is amid profound transformations. With frequent local conflicts and unrest, the accelerated evolution of the artificial

intelligence technology revolution, monetary policy adjustments in major economies, and the increasingly urgent need for green transformation, China and the world are facing common challenges in development.

¹ The article is a keynote speech delivered by the author at the opening ceremony of the 6th Bund Summit Navigating a Changing World. It was translated by the Secretariat of CF40 and not reviewed by the author. In case of any discrepancy or ambiguity between the English and Chinese versions, the Chinese version shall prevail.

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The theme of this year's summit is "Navigating a Changing World", and I look forward to your free speech and professional exchanges to promote practical cooperation among all parties.

The third plenary session of the 20th Central Committee of the Communist Party of China (CPC), held recently, adopted the Resolution of the 20th CPC Central Committee on further deepening reform comprehensively to advance Chinese modernization, arranging a series of major issues relating to China's reform, opening-up, and development in the coming period. This resolution is bound to have a significant and far-reaching impact on China's modernization and economic and social development. I would like to share my views and experiences about encouraging innovation and developing new quality productive forces.

First, it is necessary to leverage the decisive role of the market in allocating resources and give better play to the role of the government. A high-level socialist market economic system is an important guarantee for Chinese modernization. The third plenary session of the 20th CPC Central Committee demands that the role of the market mechanism be better played, a fairer and more dynamic market environment be created, the efficiency of resource allocation be optimized, and benefits be maximized. It proposes to better maintain market order, make up for market failures, and stimulate endogenous dynamics and innovative vitality in society. It also proposes to improve the system and rules of the factor market, promote the smooth flow of production factors, the efficient allocation of all types of resources, and the full release of market potential. Besides, it recommends improving the mechanism for determining factor prices mainly according to market supply and demand, preventing undue government intervention in price formation, and improving the mechanism whereby factors of production such as labor, capital, land, knowledge, technology, management, and data are evaluated for their contribution by the market and remuneration according to the contribution. In addition, it emphasizes promoting the unification of the rules of the market infrastructure system as well as the fairness and unity of market regulation, and clearing up and abolishing all kinds of regulations and practices that impede the national unified market and fair competition. It also emphasizes the improvement of the property rights

system, the equal and permanent protection of the property rights of all types of economic ownership by the law, the imposition of the same responsibility, the same crime, and the same punishment for infringement of the property rights and legitimate interests of all types of economic ownership, and the improvement of the system of punitive damages. In all, a high-level market economic system is a critical institutional guarantee for the promotion of scientific and technological innovation and the development of new quality productive forces.

Second, it is essential to protect intellectual property rights. Patents are the core of intellectual property rights. The patent system is a great invention in human history, and it has several basic connotations. First, it publicizes the trade secrets of inventors and promotes the exchanges of scientific and technological knowledge, so later generations can continue to invent and create based on the inventions of their predecessors and promote the progress of science and technology. Second, it grants inventors the rights to market exclusivity, encouraging invention and creation with commercial interests, including exclusively using the invented technology to produce and sell products and independently determining the price. After the expiration of the patent, anyone else can use it free of charge. There is a famous saying that the "patent system is to add the oil of interest to the fire of genius". The establishment of this system laid a foundation for the Industrial Revolution and the rapid progress of modern science and technology.

Since its reform and opening up, China has made great progress, and one important practice is the determination of the direction of reforming the market economy system and the establishment of a system for protecting property rights and intellectual property rights that is compatible with a market economy. We need to improve the relevant rules and policies, accelerate the formation of production relations that are more compatible with the new quality productive forces, and promote the agglomeration of advanced production factors towards the development of new quality productive forces, to substantially increase the

total factor productivity. In addition, we need to respect all types of intellectual property rights, such as patents, trademarks, trade secrets, and geographical markings, and in particular, the rights to market exclusivity and independent pricing of patents, to provide stable market expectations to enterprises and investors and encourage invention, creation, innovation, and entrepreneurship.

Third, the creativity of scientific and technological personnel must be stimulated. Most scientific researchers in China work in state-owned research institutes, universities, and medical institutions. Mobilizing their enthusiasm for invention and creation is of great significance to building an innovative country, promoting scientific and technological innovation to drive industrial innovation, and realizing high-quality economic development.

To improve the transformation efficiency of scientific and technological achievements, the United States (U.S.) enacted the Bayh-Dole Act in 1980, in which the federal government gave up the ownership of government-funded scientific and technological achievements and left it to the institutions where the researchers work to be responsible for the transformation and the proceed distribution. This act has formed a distribution pattern where the researcher as an individual, the team, and the institution are distributed with one-third of the proceeds, greatly mobilizing the enthusiasm of researchers, and the rate of transformation of scientific and technological achievements has increased from the original 10% to 60%.

China amended the Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements in 2015, making it clear that in government-funded scientific research projects, the proportion of the rights and interests of scientific researchers and institutions should be defined in advance and that if the proportion is not clearly defined, no less than 50% of the net proceeds should be rewarded to scientific researchers. We need to effectively implement the relevant provisions of this law, properly deal with the relationship between rewarding

the proceeds from the transformation of scientific and technological achievements and the management of state-owned assets, deepen the reform of empowering scientific and technological achievements, deepen the reform of the income distribution system of colleges, universities, and scientific research institutes, and set up a separate management system for the assets of scientific and technological achievements, giving scientific and technological personnel greater autonomy in the distribution of the proceeds from the transformation of scientific and technological achievements and mobilizing the enthusiasm of scientific and technological researchers for invention and creation.

Fourth, the protection of intellectual property rights must be strengthened. To protect intellectual property rights, we must crack down on crimes against intellectual property rights. Intellectual property is an important part of property rights. Infringement of intellectual property rights will undermine the confidence of inventors and ruin the market expectations of enterprises and investors, more harmful to society than general property crimes such as robbery and theft. In this regard, it is necessary to learn from international practices and amend the relevant provisions of the Criminal Law of the People's Republic of China to criminalize the manufacture, transport, and sale of products infringing on intellectual property rights, determining charges according to actions and sentences according to consequences, and to abolish prerequisites such as transporters, value of goods, motives, and serious consequences.

Some are concerned that this will lead to the law being unenforceable, and this worry indicates the seriousness of the problem, but cannot be a reason for accommodating the reality and taking no action. For example, the same worry once arose about driving under the influence of alcohol (DUI), but nowadays refusing DUI has become a habit and has given rise to a new profession, i.e., "designated driver". Therefore, it is necessary to play the corrective role of the law to promote the formation of habits and social customs that respect intellectual property rights. Everyone must

respect intellectual property rights, respect others' inventions and creations, consciously oppose all kinds of infringements, and contribute to innovative country construction and high-quality development.

Fifth, institutional openness must be accelerated. Scientific and technological development benefits all humankind. Promoting systemic opening up is of great significance to promoting innovation and high-quality development. It is significant to continue to promote reform through opening up, learn from advanced international experience, improve the market economic system and the macroeconomic regulation system, break down the institutional barriers that constrain innovation, and provide a more relaxed external environment conducive to innovation and development. Furthermore, it is crucial to make full use of China's mega-market, introduce international advanced technology and management experience to improve our governance capacity and level, build a higher-standard new open economic system, take the initiative to align with international high-standard economic and trade rules, to realize the compatibility of rules, regulations, management, and standards, and create a transparent, stable, and predictable institutional environment. Moreover, it is necessary to promote the orderly expansion of opening up in telecommunications, the Internet, education, culture, and medical care, and encourage high-level foreign universities of science and technology to run schools in China while encouraging study abroad. Meanwhile, it is significant to expand international scientific and technological exchanges and cooperation and optimize the management mechanism for foreign professional exchanges and cooperation among universities, research institutes, and scientific and technological associations.

Biomedical innovation and industrial development have been a major task in China's high-tech and industrial manufacturing sectors in recent years. Firstly, the quality of generic drugs has improved significantly. Since 2015, more than 10,000 specifications of generic drugs have been approved or passed the "Consistency Evaluation of the Quality and Efficacy of Generic Drugs"

by the principle of consistency in quality and efficacy with the original drugs, covering 1,300 varieties, compared with more than 2,000 specifications and less than 300 varieties three years ago. Now the quality of commonly used clinical drugs is roughly aligned with international standards, and bringing drugs back from abroad has been much less witnessed. Improving the quality and efficacy of generic drugs and realizing the clinical substitution of original drugs are of great significance to fulfilling the clinical needs of more than 90% of patients, better realizing the accessibility of medicines, lowering the burden of medical expenses on the society, saving medical insurance funds, and helping countries in Europe and the U.S. to address drug shortage.

Secondly, the innovative drug industry has been developing rapidly. In the past decade, China's drug regulatory authorities have approved the marketing of more than 450 innovative drugs, accounting for 16% of the world's total. Drugs, such as BeiGene's Zanubrutinib, Shanghai Hutchison Pharmaceuticals' Fruquintinib, and Junshi Biosciences' Toripalimab, have been listed in China and the U.S. The number of research and development (R&D) projects of Chinese companies purchased by multinational companies has increased significantly in recent years, and more than 4,800 clinical trials have been carried out in China, accounting for one-third of the global total.

China has many favorable conditions for biomedicine development, thanks to its large market capacity, substantial scientific and technological workers, the most high-level medical resources in the world, and much faster and cheaper recruitment of clinical subjects than abroad. Besides, China's systems of clinical trials, review and approval, and production supervision of drugs have roughly aligned with the highest international standards. In addition, China is a member of the Management Committee of the International Council for Harmonization of Technical Requirements for Pharmaceuticals for Human Use (ICH), and all ICH guidelines have been translated into guidelines for domestic drug R&D.

The third plenary session has made many major decisions, which will play a great role in promoting the development of China's biomedical industry. The resolution proposes to improve the mechanism of determining the price of factors mainly according to market supply and demand, and to prevent undue government intervention in price formation; it proposes to promote the synergistic development and governance of medical care, medical insurance, and pharmaceuticals, deepen the reform of public hospitals, establish a medical service-led charging mechanism, set up a mechanism to support the development of innovative medicines and medical devices, improve the reasonable adjustment mechanism of basic medical insurance financing and remuneration package; and it also proposes to promote basic medical insurance provincial-level coordination, deepen the reform of health insurance payments, improve the major disease insurance and medical assistance systems, and leverage the supplemental role of commercial insurances. All these will significantly improve the market environment for the development of the biomedical industry and

inject a strong impetus for biomedical innovation.

This year's government work report proposes to accelerate the development of the innovative drug industry. Relevant departments of the Chinese government and local governments have been actively studying and announcing policies and measures to support the development of biopharmaceuticals throughout the entire chain, and endeavoring to help enterprises address the "difficult financing" and "difficult access to hospitals" of innovative drugs. In particular, this January, the general offices of the CPC Central Committee and the State Council released an implementation plan for the pilot comprehensive reform of the Pudong New Area of Shanghai. The plan, with a 2023-2027 timeframe, proposes to allow the pricing of new biopharmaceutical products to be based on that of international drugs of the same kind in accordance with relevant regulations. It is fair to believe that China's biopharmaceutical industry will overcome the current difficulties, get rid of "financing difficulties", and usher in a bright future for its development. 🏡