Chapter 4 Strategic Priorities of Medium and Long-Term Economic and Social Development



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Facing the great transformations once in a century and the changes in major social contradictions in China, China has treated the principle of "innovation, openness, distribution and rule of law" as strategic priorities for its medium and long-term economic and social development, so as to enhance its core competitiveness based on "innovation" and "openness", modernize national governance based on "distribution" and "rule of law", and gain a longer period of strategic opportunities for its future development.

Internationally, the new industrial revolution, backlash against globalization trend, populism, global governance dilemma, and Sino-US economic and trade frictions will continue. In particular, the deliberate suppression by the United States has caused problems in Sino-US relations, the ballast stone of foreign relations, and the external environment tends to deteriorate. As far as China is concerned: on the one hand, the transformation of major social contradictions has raised new requirements for highquality development; on the other hand, the slowdown of economic growth under the new normal, the superposition of cyclical factors and the accumulation of long-term institutional and structural problems have constituted main development risks in the future. In response to the worsening external environment, the growing domestic risks and the people's new desire for a better life, the strategic priorities of China's future development have touched upon "innovation, openness, distribution and rule of law", enhancing our core competitiveness, modernizing national governance, and achieving high-quality development in the new era. Innovation is a most effective means to enhance our core competitiveness. It is conducive to transforming growth drivers and coping with the risk of technological decoupling under the new normal. Openness is the inherent requirement of making the best of the important strategic

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opportunity period of China's development under the great global changes. We have sped up the formation of a new development pattern in which domestic economic circulation plays a leading role while international economic circulation remains its extension and supplement, and cultivate new advantages of China's participation in international cooperation and competition under the new situation. Distribution means adjusting the distribution pattern of national income. We have expanded the scale of middle-income groups, and improve the basic economic system. On the one hand, consumption potential has been unleashed to form a strong domestic market. On the other hand, efforts have been exerted to avoid the populist thoughts brought about by excessive income gap, and ensure middle-income groups play their role in social stability and social harmony. The rule of law is a positive response to the people's desire for a better life in terms of democracy, rule of law, fairness and justice in the new era, and an institutional guarantee for "market to play its decisive role and for the government to better play its role". The rule of law is an indispensable aspect of state governance modernization, and the key to transforming China's institutional advantages into the efficiency of state governance.

It is noted that the outbreak of COVID-19 in early 2020 not only changed the basic situation of world economic growth in the short term, but also had a noticeable impact on promoting new business forms, reshaping growth momentum and improving public governance in the medium and long term. In particular, the epidemic's impact on global value chain and supply chain revealed that globalization (dependence) has been embedded in the global production division system. With this reflection, countries may no longer adhere to one-dimensional efficiency standards in participating in the division of labor in global value chains, but consider the stability, security and flexibility of value chains. These reflections and actions will have a very direct and significant impact on China's medium and long-term development, especially on innovation and opening up.

4.1 Innovative Development After "Kicking Away the Ladder"

German economist Friedrich List once put forward the famous "ladder theory", comparing trade protection to a "ladder" for ascending a height so as to analyze the change of trade policy in the first-mover countries, such as the United Kingdom. He wrote, "This was a very common ingenuity. When a person reaches the peak, he will kick away the ladder he uses as he gradually climbs up, so as not to be followed by others".¹ If the "ladder theory" is used to understand the motivation behind the current economic and trade conflict and technological decoupling between China and the United States, it is also very appropriate. The United States, which has reached the peak, will "kick away the ladder". This means that China's future

¹ List (1961).

innovative development may encounter challenges after the United States "kicks away the ladder". China needs to rely more on its own strength.

4.1.1 Innovative Development in the New Round of Industrial Revolution

From the 1980s, the information technology based on personal computer (PC) began to boom as the Internet was widely used. In the late 1990s, there resurged a new generation of information technology based on personal mobile terminals (mobile phones, tablet computers, etc.), which gave birth to new technology/industry fields such as big data, artificial intelligence and digital manufacturing, and was widely combined with new business models and new formats such as e-commerce platform, sharing economy, e-banking, mobile payment, e-sports and live broadcast. This constitutes the core driving force of the new round of industrial revolution. It is noted that China, as a later-mover, had been in a passive position of running after and catching up with advanced economies in previous industrial revolutions. As far as this industrial revolution is concerned, the gap between China and the first-mover countries has narrowed. With complete and huge manufacturing industry, market scale advantages and strong national capacity, China is on the same starting line as the frontier countries in some fields.

In this context, Chinese policy makers have attached great importance in recent years to the leading role of innovation in economic growth, industrial upgrading, reshaping the value chain and enhancing international competitiveness.

The Third Plenary Session of the Eighteenth Central Committee of the Communist Party of China emphasized "making China an innovative country", and put forward some work priorities such as "deepening reform of the management system for science and technology", "building a national innovation system", and "strengthen the application and protection of intellectual property rights (IPR), and improving the technological innovation incentive mechanism".² In order to further implement the concept of innovative development, in May 2016, the CPC Central Committee and the State Council issued the Outline of the National Strategy of Innovation-Driven Development, which put forward the top-level design and overall deployment of innovation-driven development in China. This programmatic document has also depicted the three-step strategic goal of building China's strength in science and technology in the mid-twenty-first century. Step 1: China will enter the ranks of innovative countries by 2020 and basically build a national innovation system with Chinese characteristics. Step 2: China will be in the forefront of innovative countries by 2030, with fundamental transformation of its development drivers, and a higher level of economic and social development and international competitiveness. Step 3: China will become a major country that has much strength in sci-tech innovation

² See Decision of the Central Committee of the Communist Party of China on Several Major Issues Concerning Comprehensively Deepening Reform, People's Publishing House, 2013.

and a major scientific center and innovation highland in the world by 2050. In the report of the 19th National Congress of the Communist Party of China, the importance of innovation has been highlighted unprecedentedly. The "innovation-driven development strategy" has not only been clearly defined as a national strategy, but also become the key to establishing a modern economic system and achieving highquality development. In this regard, President Xi Jinping pointed out that "we will accelerate the building of an innovative country. Innovation is the primary engine of development and the strategic support for building a modern economic system".³ At the Fourth Plenary Session of the 19th CPC Central Committee held in October 2019, the central government put forward for the first time that "data" should be used as a production factor and participate in distribution according to contribution, which undoubtedly provided important incentives and institutional guarantees for related sci-tech innovation and industrial development.

4.1.2 Achievements and Shortcomings of Innovative Development

First of all, since the 18th National Congress of the Communist Party of China, China has made remarkable progress in innovative development, and its role in the international industrial value chain is also constantly improving. For example, as an important measure of labor productivity, the per capita output of employees in China is approaching the world level. In 1978, this indicator in China was only 2.5% of that in the United States, exceeded 10% for the first time in 2006, and reached more than 1/4 of that in the United States by 2018. This has shown the improved quality and value of China's labor force, which of course means the banishment of China's traditional advantages of "simple labor and low cost". Furthermore, it also suggests that the position and role of China's participation in international division of labor need to be deeply adjusted, and the new comparative advantages need to be fostered urgently. Otherwise, China may fall into a dilemma and be alienated from the "center-periphery" framework of international division of labor, which is one of the core meanings of the "middle-income trap" that has attracted much attention (Fig. 4.1).

Secondly, in recent years, China has made steady progress in the core source of innovation and basic research of natural science, and is even moving closer to the United States that represents the forefront of the world. For example, according to the nature index compiled by the top international academic journal *Nature*,⁴ China's scientific research has made remarkable progress between 2015 and 2018: China's

³ Xi (2017).

⁴ The index is mainly based on the number of articles published in top natural science journals for physics, chemistry, biology, earth and environment.



Fig. 4.1 Relative values of per capita output of practitioners (100% for the U.S.). *Source* The Conference Board's Total Economy Database

index increased from 7680 to 11,026, and its relative value to the US index increased from 37 to 56%; in addition, China expanded its advantages over Germany, United Kingdom, Japan, France and other major countries with scientific research center, and the absolute amount even approached the sum of these four countries (13,038) Of course, this index also indicates that for China, as a country with the largest number of R&D personnel, there is still much room for improvement in basic scientific research (Fig. 4.2).

Finally, from the perspective of the value/technical content of international trade, China has made outstanding progress in recent years. For example, according to data of export local added value provided by OECD (see Fig. 4.3), the proportion of added value created locally by China's total export trade was significantly lower than that of major developed economies such as the United States, Japan and Germany. However, thanks to industrial upgrading and export structure transformation, China has been moving to the high end of the international industrial value chain, and the corresponding indicators have also been rising continuously from 73.7% in 2005 to 79.2% in 2012, and then further to 83.4% in 2016. For this indicator alone, China has narrowed its gap with the United States and Japan, and even surpassed Germany. In addition, according to data of the National Bureau of Statistics of China, from 2013 to 2018, the proportion of "general trade" with higher added value in China's merchandise export increased from 49 to 56%, and the proportion of "processing trade" decreased accordingly. This change in trade structure, together with the abovementioned local added value data, reflects that China is constantly moving to the high end of the international industrial value chain. From the perspective of the technical content of trade, the proportion of China's high-tech products in all manufacturing

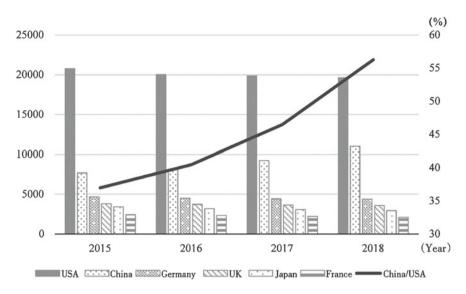


Fig. 4.2 Nature indices of major economies (2015–2018). *Note* The Nature index is represented by the left axis, and the ratio of China and the United States index is represented by the right axis. *Source* Nature Index

exports in recent years has outperformed that of major economies in the world such as the United States, Japan, Germany and India in the same period. According to WDI statistics of the World Bank, in 2017, this indicator reached 31% in China, while it was only 20% in the United States, 18 and 16% in Japan and Germany respectively, and only 7% in India. Thus, it is clear that this is the performance of China's domestic industrial upgrading in the international division of labor.

Although China's innovative development has made remarkable progress in recent years, we should be soberly aware that innovative development remains one of the shortcomings of China's high-quality development. First, China's basic scientific research is faced with some major problems, including: Less attention paid by enterprises to basic research, few achievements in major original technologies, and inadequate capability of underlying basic technology and basic process. Second, there are bottlenecks in core technologies. There are bottlenecks hampering development of industrial machine tools, high-end chips, basic software and hardware, development platforms, basic algorithms, basic components and basic materials. The hard situation that core technologies in key areas are under the control of advanced economies has not been fundamentally changed. This has been fully manifested in this round of Sino-US trade frictions. Third, there are insufficient demands for China's industry-specific technology R&D, the inadequacy to plan the opening and cooperation of science and technology from a global perspective, and the weak capability to transform technological achievements. Fourth, China's science and technology management system cannot fully meet the need of building a world power in science and technology. Many important decisions on reform of the science and technology system have not yet

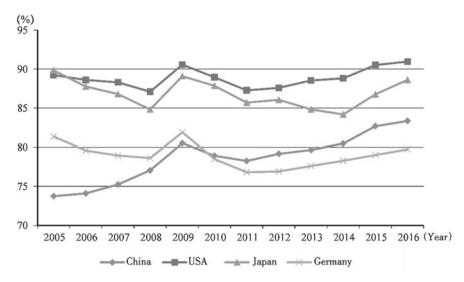


Fig. 4.3 Proportion of local added value in exports of major economies. *Source* OECD Trade in Value Added Database (TIVA database)

been implemented. The overall linkage between science and technology innovation policies and economic and industrial policies is not strong; and the mechanism and environment for the whole society to encourage innovation and inclusive innovation need to be optimized.

4.1.3 Policy Priorities for Innovative Development

Based on new internal and external conditions, China's effort and policy priorities for comprehensively promoting innovative development include the following five interrelated contents.

(1) Avoiding the "decoupling" between China and the United States, and actively responding to the potential technical "decoupling" risks

The benefits of China's opening or globalization are due to China's learning from developed countries so as to give full play to its later-mover advantages for catchup with advance economies. According to Fig. 4.4, China's import of technologies reached 29 billion US dollars in 2017, and export was only 5 billion US dollars, with an export/import ratio of 0.2, while the technology export/import ratios of South Korea, Germany, Japan and the United States reached 1.8, 1.6, 2.0 and 2.5 respectively in the same period. This reflects from one side that China's international dependence on import of technologies remains very high. Therefore, we will try our best to avoid (technical) "decoupling" between China and the United States. From a rational and objective point of view, China has no intention to challenge the United States, and nor

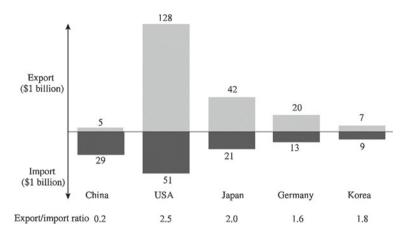


Fig. 4.4 International comparison of China's import and export of technologies (2017). *Source* McKinsey Global Institute (MGI) (2019)

does it want to replace it. The United States can't change China, let alone stop China's development. From a global perspective and a long-term perspective, there are more areas in which China and the United States can and should cooperate than at any time in history. Therefore, the principles of avoiding "decoupling" include: (1) mutual respect and expanding common ground while shelving differences, (2) managing and controlling differences, and avoiding confrontations, and (3) expanding interests, and focusing on cooperation. In practice, the two countries should be given greater freedom in formulating industrial policies, scientific and technological systems and social standards, and allowed to use precise policy measures (including tariff and non-tariff measures) to protect their choices in industrial, technological and social policies, while avoiding unnecessary or asymmetric burdens on trading partners.

In order to cope with the potential risk of technological decoupling between China and the United States, China will promote independent innovation, maintain the integrity of industrial chain and value chain, and guard against being squeezed out of the global value chain by the United States.

Internationally, we will develop regional value chains. Faced with the prospect of "decoupling" between the US-led west and China, efforts will be made to optimize institutional systems by building a national innovation system, improving intellectual property protection, and improving R&D incentives and flexibility of scientific research institutions, so as to ensure the leading role of innovation, improve the autonomy and controllability of core technologies in key areas, and prevent foreign companies' supply disruption. At the same time, we will make good use of our own scale advantages and the comparative advantages and markets of other countries and regions (especially those along the Belt and Road) to promote extension and upgrading of the industrial value chain, build a regional value chain, and finally promote a market network, division of labor system and technical standard system that are relatively independent of the United States. It is noted that though there is

a small possibility of complete "decoupling" between China and the United States under the background of globalization, it is obviously a lose-lose or even a multilose result, so we must be fully prepared for such decoupling and plan ahead. In the long run, only by making sufficient preparations can we avoid "decoupling" and the interruption of global industrial value chain.

Domestically, the innovation focus of national economic and technological development zones should shift from region to industrial value chain. In recent years, as the main carrier of open innovation, more than 200 state-level economic and technological development zones have played an immeasurable positive role in open innovation, technological innovation and institutional innovation. However, there have also emerged some deep contradictions. Among them, in more than 200 state-level economic development zones in various places, there are problems such as fragmentation, low-level redundant construction and low efficiency of resource utilization, which led to insignificant promotion of economic development zones on the whole industrial value chain because these zones laid too much stress on their contributions to local economy. In fact, the decision-makers have also issued a number of policy programs in recent years, which aimed at correcting relevant defects and adapting to the changing of the situation. In May 2019, the State Council issued the Opinions on Promoting Innovation and Upgrading of National Economic and Technological Development Zones and Building a New Highland of Reform and Opening-up, which emphasized that the construction of economic development zones should be driven by overall innovation and open upgrading. Based on this policy idea, the development of economic development zone will continue to strengthen top-level design and overall coordination, break the compartmentalization of local departments, and make economic development zone more oriented to the industrial chain than to the region. Only in this way can we give full play to its functions of promoting innovation and industrial upgrading, and make better use of the advantages of the vast domestic market and complete industrial system, which is particularly important under the background of economic transformation and upgrading and intensified external competition.

(2) Exploring a new model of the national sci-tech innovation system in the new era

The national sci-tech innovation system has made great contributions to China's scientific and technological development and progress, such as missiles, nuclear bombs, and the artificial satellite as well as follow-up aerospace project. However, under the new international and domestic environment, it is necessary for China to explore a new model of the national sci-tech innovation system. The Third Plenary Session of the Eighteenth Central Committee of the Communist Party of China put forward the important judgment that "we will ensure the market play a decisive role in resource allocation and give better play to the role of government", which pointed out the fundamental way for innovative development in the new era.

Under the socialist market economic system, the traditional "national system" is incompatible with the needs of the rapid development of science and technology at present. Too much emphasis placed on government planning and the will of the

state will often led to the insensitiveness to market. It is difficult to correct the deviation after setting goals or topics, and it ignores the uncertainty in scientific research, especially in basic research. By discarding and surpassing the traditional national system which overemphasized the role of government and neglected other innovative elements such as market, we will build a new national system of scitech innovation from the perspective of balanced governance to realize the transformation from government-led to multi-participation national system. With focus on the balance between government role and market power, strike the balance between organized innovation and self-organized innovation, and combine government promotion and market drive with the active role of scientific and technological circles.⁵

First, the government can give full play to the advantages of top-level design, platform establishment, mechanism coordination and mobilizing resources for major undertakings. Building a new national system of sci-tech innovation needs a series of mechanisms that constitute a institutional framework, including: a national high-level macro-decision-making mechanism for science and technology, a cross-disciplinary horizontal coordination mechanism, a mechanism for scientists to participate in the decision-making process, and a joint research mechanism for government, industry, university and research. We also need to improve the contract constraint mechanism, project responsibility mechanism and R&D organization mechanism, and strengthen the cost control mechanism, performance evaluation mechanism, financing mechanism, government procurement system, market signal policy incentive mechanism and risk prevention mechanism. Under the guidance of this framework, when faced with the complicated situation at home and abroad, on the one hand, we will fully mobilize the innovation enthusiasm and capability of market players, give full play to the special role of government and state-owned enterprises in integrating and allocating resources, and stay focused on tackling key problems and making key breakthroughs in innovation fields, which are difficult for general enterprises to get involved in, such as national security, major core technologies and key infrastructure. In addition, according to different objects, we will ensure the guiding and leading role of government investment funds in the innovation process. In the whole process of government's participation in innovation, we will emphasize pre-operational scientific and democratic decision-making, as well as operational and post-operational oversight and accountability, so as to ensure "pooling resources for major breakthroughs". It is thus noted that a complete national system of sci-tech innovation will not be formed until concerted efforts are made between government and market, between military and people, between public ownership economy and other ownership economies.

Second, the joint efforts between government and market are highlighted. Venture capital is the trailblazer of technological innovation. However, venture capital cannot be separated from government's support. Venture capital often enters market after government has invested and assumed all uncertainties and high risks of innovation.

⁵ Tao and Kaiming (2018).

Mazzucato argues that governments of developed economies should and can play a very active role in innovation, and that it is industrial policy rather than free markets that has promoted innovation.⁶ As a venture capitalist, government has bridged the gap between public investment and private investment by repairing market (make up for the shortage of market) and actively creating shaping market. This has actually subverted some dogmas of neoclassical economics. Studies on IT revolution, biotechnology industry and nanotechnology in the United States show that most private venture capital is concentrated in the intermediate stage of venture capital, while in the early stage it is financed by the American Small Business Innovation Research. The main reason for this situation is that the early stage of radical innovation features capital-intensive, low income expectation and long-term persistence in venture capital, while private venture capital is not interested in it, so the government has to shoulder the responsibility for this risk. If the "first driving force" of venture capital entering an uncertain field can be provided by government, then the subsequent innovation process is mainly driven by market. Different forms of coordination between government and market are needed in different stages of the whole life cycle of innovation.

(3) Ensuring enterprises play a leading role in innovation

Innovation is essentially a market phenomenon, and market competition is the touchstone to identify the value of innovation. If the process innovation supported by government may be effective in the stage of imitation and catch-up, then independent innovation is full of uncertainty in a stage close to the forefront of technology. At this time, it is necessary to rely on market mechanism to spread risks, and entrepreneurs should also obtain monopoly profits through market mechanism. Therefore, the role of market mechanism is an institutional premise for entrepreneurs to realize innovation.

We will establish an innovative factor allocation mechanism that is truly "marketoriented and market-dependent" through reform. We will encourage free flow and flexible combination of all innovation factors, including capital, talents and technology, and get rid of various unreasonable institutional obstacles, such as financial control, (industry) access restrictions, household registration system, personnel files, etc. We will minimize government's intervention in competitive fields, cancel all kinds of unreasonable administrative approvals and permits, reduce the cost of starting a business, enhance the tolerance for entrepreneurs' entrepreneurial failure, and fully release the competitive vitality of micro-economic entities.

In enterprise innovation, more support will be given to private enterprises. According to data in Fig. 4.5, foreign-funded enterprises are at the highest level, followed by private enterprises and state-owned enterprises in terms of the number of patents generated per 100 million yuan of R&D investment of enterprises of different ownership (and sizes). State-owned enterprises in monopolized industries often have insufficient innovation motivation, so we can consider liberalizing market access and allowing private capital to enter these industries to compete fairly with them. This will

⁶ Mazzucato (2013).



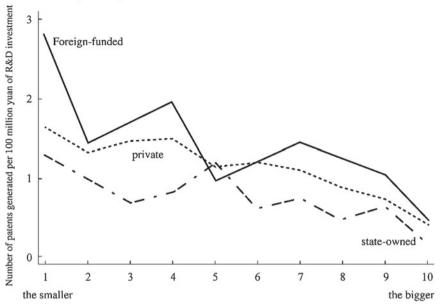


Fig. 4.5 Efficiency of R&D investment of enterprises with different ownership (and sizes). *Source* Wei et al. (2017)

give private enterprises more room for development, and force state-owned enterprises to promote innovation. In addition, China is now facing more cutting-edge technologies than imitative technologies. It is thus difficult to achieve this purpose by imitating according to the established technical route. Therefore, more enterprises are allowed to make trial and error. The ability of private enterprises to bear the risk of failure is much stronger than that of state-owned enterprises.

(4) Taking civil-military integration strategy as a new driving force for promoting sci-tech innovation

In September 1994, the U.S. Office of Technology Assessment first used the term of "civil-military integration" in its report on *Assessing the Potential for Civil-Military Integration*, and defined it as the process of integrating the national defense industrial base with the civil sci-tech industrial base to form a unified national sci-tech and industrial base of the United States. Over years, there has been a strict institutional boundary between military and civilian science and technology in China, which not only causes waste of resources, which affected the enthusiasm and creativity of military scientific research personnel, and restricted mutual transformation of dualuse science and technology and the overall national capability of sci-tech innovation.

Therefore, the key to promoting sci-tech innovation through civil-military integration lies in advancing the following changes: (1) breaking the institutional boundary between military (national defense) science and technology industry and civil science and technology industry, (2) establishing a new military ordering and purchasing mechanism, setting up a confidentiality system under the new system, clarifying the ownership of intellectual property rights, and creating a mechanism for military technology to enter the market and (3) strengthening the overall planning and effective alignment of military and civil science and technology planning. First, we will strengthen the effective alignment of national overall planning for civil-military integration with professional planning in the field of science and technology, and establish the guidance of the national "integrated development plan for economy and defense" in the "special plan for civil-military integration in science and technology". Second, we will strengthen the alignment of the national defense-related sci-tech development plan with the national sci-tech innovation plan, and promote the overall allocation and management of various military and civilian sci-tech plan resources from the perspective of basic research and cutting-edge technology research. Fourth, we will tackle key problems in civil-military collaboration on sci-tech innovation. Based on implementing major national science and technology programs and major projects, we will stay focused on major strategic products and major industrialization goals of the development of the economy and national defense, enable military and local government to jointly launch a new round of demonstrations for national major science and technology programs, and initiate a group of major projects related to national security and defense security. We will make overall plans for a number of dual-use strategic high technologies to enhance our new military capabilities and industry-driven capabilities, endeavor to make substantial breakthroughs in major key areas, make R&D layout and collaborative innovation among military and civilian units, industries and regions, and effectively enhance military capabilities and the industrialization level.

(5) Promoting innovative development in the process of opening up, and ensuring a smooth "learning channel"

Despite the above-mentioned "decoupling" possibility and the backlash against globalization in the post-crisis era, we stay committed to unswervingly opening wider and building a new open economic system. Meanwhile, it must be noted that China will remain a developing country in a long period of time, and there is still a big gap between China and the first-mover countries in fields of science, technology and commerce. In this regard, China must learn and make full, active and flexible use of the knowledge spillovers and human capital of the first-mover countries. In the face of new international situation, special attention will be paid to the protection of intellectual property rights, the competitive neutrality of various enterprises, and the compliance of technology transfer activities. In addition, we will continue to strengthen educational and cultural exchanges and R&D cooperation with developed countries including the United States, to which we will take a highly flexible and open approach.

4.2 Further Expanding High-Level Opening-Up

Further expanding high-level opening up, building a new open economic system at a higher level, and accelerating the establishment of a market rule system that is aligned with the international high-standard trade and investment rules will be the goal of comprehensively deepening reform, the necessary prerequisite for obtaining new globalization dividends, and the inherent requirement for making good use of the important strategic opportunity period of China's development during great transformations once in a century.

4.2.1 The World Faces Great Transformations Never Seen in a Century

Great transformations unseen in a century have shaped the basic context of China's medium and long-term opening up to the outside world. The basic meaning of a great change that has never happened in a hundred years lies in the ongoing trend of "ascending east and descending west" and the resulting competition and conflict between the East and the West. The "East" here means the eastern countries represented by China, or mainly developing economies, and the "West" refers to the western countries represented by the United States, or mainly developed economies. The great changes quietly took place when the comprehensive national strength of China has risen since the reform and opening-up in 1978. The changes became prominent in the current Sino-US trade frictions, and will further evolve and deepen.

Great transformations once in a century consist of many changes. First, the international architecture is evolving at a faster pace. Institutional competition is the most fundamental competition between two countries. Internationally, there are two international trends and forces that have entered a critical stage of comprehensive contest. China and the United States have gradually moved from cooperation and competition to a strategic stalemate stage. The two great powers may launch an all-round game in the fields of economic development, national capacity, science and technology, network security and global governance. Second, great changes have taken place in the global industrial development and division of labor under the background of new industrial revolution. The restructuring of global industrial chain and innovation chain by US-led developed economies will seriously affect the process and trend of China's industrial transformation and upgrading. The weakening of the comparative advantage of traditional labor force by automation and intelligent robots and the competition of emerging economies such as Vietnam in labor-intensive industries will directly undermine China's pivotal role for connecting developed economies and developing economies in the international economic and trade cycle. Third, the uncertainty in world economic development has increased. There are endless pessimistic arguments about the secular stagnation of the global economy. The headwind of global protectionism, together with the decline in the supply of labor factors and the stagnation of production technology level, has led to the continuous decline in the potential growth rate of various countries, the gloomy prospect of international trade growth, the instability in international direct investment, the constantly rising global debts, the growing financial market risks in emerging economies, the diversified growth cycles of all economies, and the negative spillover of monetary policy in major developed economies.

The coming period is a critical period for China to enter the center of the world arena, and it is also a strategic opportunity period for China to participate in shaping the new global structure. Confronted with complex external environment, we must accelerate the development of a higher-level open economy, actively participate in the formulation of international economic and trade rules, promote the development of economic globalization towards a more open, inclusive, balanced and win–win direction, and contribute China's wisdom and strength to the building of an open world economic system. This is not only the need to expand China's own development space in line with the general trend, but also the need to actively demonstrate China's role as a major country in global economic governance.

4.2.2 Considerable Room for China to Integrate into the World Economy

After more than 40 years of reform and opening-up, China has been deeply integrated into the world economic system. The sharing of globalization dividends has boosted China's development. China's strong growth has also contributed more than onethird of the global GDP growth. In terms of economic volume, China has become one of the world's major countries; however, from the perspective of integration into the world economy, China has much work to do. This is why we need to open our economic sectors wider and deeper.

The space for China to get further integrated into globalization is mainly reflected in the following four aspects. First, China is laggard in the development of trade in services. China's global share of trade in services is less than that of trade in goods. In 2017, China accounted for 6.4% of the total global service trade, about half of the commodity trade (see Fig. 4.6), while globally, trade in services grew 60% faster than trade in goods. Second, the "going global" of enterprises is still in its infancy. Chinese companies' overseas revenues have increased, but even some global companies still account for less than 20% of their overseas revenues. In contrast, the average overseas revenue ratio of S&P 500 companies is as high as 44%. In addition, there was only one Chinese enterprise among the top 100 most valuable brands in the world in 2018. Third, the globalization of the financial system in China still has a long way to go. In 2018, foreign capital accounted for only about 2% in the Chinese banking system, about 2% in the bond market and about 6% in the stock market. In addition, China's total capital inflows and exports in 2017 (including foreign direct investment, loans, bonds, equity and reserves) were only about 30% Percentage of global merchandise trade (%)



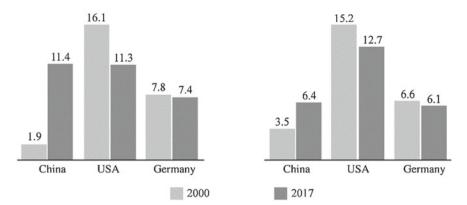


Fig. 4.6 Proportion of global trade in goods and services among China, the United States and Germany. *Source* MeKinsey Global Institute (MGI) (2019)

of those of the United States.⁷ Fourth, China's voice in global governance remains feeble. In important international organizations such as the United Nations, WTO, World Bank, International Monetary Fund, APEC, G20, etc., China's influence has been rising in recent years, but on the whole, these international organizations and multilateral organizations are mainly dominated by developed economies in Europe and America, and China's integration and voice obviously weigh less. Because of this, it is an important task in the medium and long term for China to improve its integration with the world economy by opening wider to the outside world. However, in this deep integration, structural choice and the risks brought by it. This includes over-reliance on global value chains, the bottlenecks that may be brought about by innovation chain, the security guarantee of overseas investment, the structural reform pressure brought about by compliance requirements, and the improvement of the national security review, anti-monopoly review, national technical security list management, unreliable entity list and other systems for foreign investment.

4.2.3 Opening All Economic Sectors Wider and Deeper to the Outside World

Further opening up means opening more economic sectors to the outside world. First, opening more economic sectors means optimizing the spatial layout of opening up to the outside world, including accelerating the construction of open highlands such as free trade pilot zones and free ports. Second, implementing wider opening-up means

⁷ McKinsey Global Institute (MGI) (2019).

that market access should be greatly released, including allowing foreign capital's holding or sole proprietorship in more fields. Third, implementing deeper openingup is to promote trade and investment liberalization and facilitation, including improving the system of national treatment and negative list management before foreign investment access.

These new contents mean changing the focus of opening up, that is, changing from previous opening of goods and factors to the institutional opening up based on rules and related institutions, and highlighting the opening of rules, regulations, management and standards. This is a new requirement put forward by President Xi Jinping at the Central Economic Work Conference in 2018, and it is the core essence of deeper opening-up. The institutional opening up based on rules and related institutions inevitably requires vigorously promoting institutional reform and innovation, and modernizing national governance capacity and governance system in the field to be opened.

First, we will create an international business environment in accordance with market principles and rule of law. In October 2019, the World Bank's Global Business Environment Report 2020 showed that the rank of China's business environment has greatly increased by 15 places, ranking 31st in the world, and it has been ranked among the top ten economies with the largest business environment optimization in the world for two consecutive years.⁸ The Regulations on Optimizing Doing Business Environment was promulgated and implemented on January 1, 2020. On the one hand, we will create a good business environment, further open market, improve the management system of pre-establishment national treatment and negative list, coordinate and strengthen intellectual property protection and property rights protection, and adjust government subsidies and environmental protection standards. We will also adapt to and meet the general trend of future changes in economic and trade rules such as zero tariffs, zero subsidies and zero barriers, and face up to issues such as tariff system and openness of government procurement. On the other hand, we will strengthen the fundamental position of competition policy to achieve new breakthroughs in market-oriented reform. Market-oriented means will be taken to comprehensively clean up industrial policies that hinder fair competition, establish the principle of competition neutrality, and deepen the reform of state-owned enterprises. We will see that industrial policies perform their due functionalities and are available to every enterprise. The oversight of the market will shift from general supervision of market behaviors to fair competition review.

Second, we will open wider and deeper to the outside world. Opening up is an inexhaustible motive force for China's economic development. To promote opening wider and deeper to the outside world in all respects, we will make efforts in three aspects: quantity, quality and institutional rules. (1) Opening wider to the outside world, we will continue to expand the trade in services and develop featured service trade. Proactive policies for import will be implemented by making good use of trade promotion platforms such as China International Import Expo so as to open up our market to the world, and expand Chinese imports of high-quality goods and services

⁸ World Bank (2019).

from other countries. (2) Improving the quality of opening to the outside world, we will steadily increase the added value of export commodities, and optimize the trade structure and mode of capital goods and consumer goods. The development of new trade forms, such as cross-border e-commerce, will be promoted to improve the digitalization of comprehensive foreign trade services. Service outsourcing will focus on high technology, high added value and high efficiency so as to facilitate the transformation and upgrading of service outsourcing. Foreign investment will be encouraged in the fields such as emerging industries, hi-tech industries and modern service industries. We will deepen trade cooperation with participating countries along the Belt and Road, and optimize the international market and domestic regional distribution of trade. Third, improving the system of opening to the outside world, we ensured the pilot free trade zone play its role in institutional innovation, and deepen the reform of the management system. By reducing tariffs and institutional costs, we have continued to downsize the negative list of foreign investment, and improve the level of trade and investment facilitation. We have improved the investment policies and service systems related to the "Belt and Road" initiative. Alignment with international rules and norms has been strengthened to establish a system of fair, reasonable and transparent international economic and trade rules, and promote the necessary reform of the World Trade Organization.

Third, promoting wider opening-up of the service industry, we should accelerate the full opening of the service market, strengthen the docking of internal and external standards and mutual recognition of qualifications in the service industry, and reduce the barriers within the service trade border. With focus on the integration of Central Europe, China, Japan and South Korea and the Asia–Pacific region, we have accelerated the building of bilateral and multilateral free trade networks for trade in services. We will steadily expand the opening of financial markets and institutions, accelerate the opening process in telecommunications, education, medical care, culture and other sectors, and ease restrictions on the shareholding ratio of foreign investors. Multinational companies are encouraged to set up regional headquarters, R&D centers, procurement centers, financial management centers and other functional institutions in China so as to jointly carry out technology R&D and promotion of industrialization with China's scientific research institutions and enterprises.

Fourth, reshaping the global economic, trade and geopolitical structure in accordance with the "Belt and Road" Initiative, we has reinforced its aid to other developing members, especially least-developed country members along the Belt and Road, to bridge the South-North development gap. We will promote the integration of cooperation on production capacity and service trade along the Belt and Road. We will adopt a more market-oriented and institutionalized method to ensure and improve China's investment security and investment yield in countries along the Belt and Road. Renminbi will be used more frequently for pricing and settlement during the building of the Belt and Road, so as to promote the regionalization and internationalization of Renminbi. To promote high-quality development of building the Belt and Road, we will strengthen effective alignment with relevant national development strategies, markets, industries and projects of countries and regions along the route, build comprehensive connectivity, and focus on key countries and key projects. In a word, the implementation of the "Belt and Road Initiative" should be based on the principle of extensive consultation, joint contribution and shared benefits. We will promote policy coordination, facilities connectivity, unimpeded trade, financial integration, and people-to-people bond, so as to create a new platform for international cooperation. With these efforts, we will make a new open ground of linkage between land and sea and mutual assistance between east and west, and reshape the global economic, trade and geopolitical pattern.

Fifth, pilot free trade zones prepared for the reshaping of international rules, at present, China has signed 17 free trade agreements with 25 countries and regions in Asia, Latin America, Oceania, Europe and Africa. In 2019, 15 participating countries of the Regional Comprehensive Economic Partnership (RCEP) concluded overall negotiations. This marks a major breakthrough in building a free trade area that has the largest population, the most diverse membership, and the greatest development potential. The negative list was adopted for the first time in China-Japan-Korea Free Trade Area negotiations, ushering in a new era of "FTA negative list" with high standards. In alignment with international basic economic and trade rules, we will speed up efforts to build pilot free trade zones and free trade ports with Chinese characteristics, make new ground in opening up, and form a new layout of highlevel opening of a new open country as soon as possible. To build pilot free trade zones with high standards and high quality, we will exert the exemplary and leading role of Shanghai Lingang New Area, and give more power to pilot free trade zones. Based on institutional innovation, we will continue to deepen the exploration of pioneering and differentiated reforms, strengthen the replication and promotion of pilot reform experience, and give full play to the role as a pilot ground for reform and opening-up. We will be quick to establish and improve policies and institutions for building a free trade port in Hainan in a step-by-step and phased manner, so as to speed up exploration of the development of free trade ports with distinct Chinese features, and create new horizons of higher-level opening up with better business environment and stronger ability to drive the development of surrounding areas. We will promote the process of establishing free trade zones with major economies in the world, continuously expand the coverage of the free trade zone network, and build a high-standard network of free trade zones that focuses on neighboring countries and regions, radiates out through the Belt and Road, and opens to the world.

Sixth, actively participating in the reform of global governance system, an open economy essentially requires the equality of rights and responsibilities, the transparency of international rules and the fairness of global governance. The international economic and trade rules and governance structure are in a critical period of reconstruction. China should prevent being excluded from the reconstruction of multilateral trading system and global rules, and actively participate in the reform and construction of global governance system. We should promote the improvement of international economic and trade rules, work with the international community to build a rules-based multilateral trading system, and safeguard the authority and effectiveness of the multilateral trading system. The key to supporting reform of the World Trade Organization is to uphold the core values and basic principles of the World Trade Organization, such as openness, inclusiveness and non-discrimination, and safeguard the development interests and policy of developing countries.

4.2.4 Fostering a New, Dual-Circulation Development Architecture with the Domestic Circulation as the Mainstay and with Mutual Promotion of Domestic and International

At the beginning of reform and opening-up, China's economic circulation was integrated into the world's economic circulation. In fact, the process of China's reform and opening-up is measured by its integration into the world's greater economic circulation. However, the international financial crisis in 2008 and the outbreak of COVID-19 in 2020 have led to obvious trends of the backlash against globalization as well as the regionalization and localization of global value chains. China's opening to the outside world and its entry into the international circulation have fostered a new, dual-circulation development architecture with the domestic circulation as the mainstay and with domestic and mutual promotion of international development.

First of all, the domestic circulation has huge potential and broad space. We can be more proactive and do more in shaping the future growth drivers in the domestic circulation than in the international circulation. At present, the potential and energy of the domestic circulation have not been fully unleashed due to poor national economic circulation. Therefore, more efforts must be exerted to promote reforms and tap the potential of the domestic circulation. (1) To achieve smooth circulation of the real economy, we need to solidly promote market-oriented production factors, especially the reform of household registration system and land system, and facilitate free flow of production factors. We need also to remove administrative monopoly and local protection, and drive the formation of a national unified market with regional integration (such as Yangtze River Delta integration, etc.). More efforts will be exerted to improve the income distribution pattern, expand the scale of middle-income groups, expand consumption to promote production, and open up all links of production, circulation, distribution and consumption. (2) To achieve smooth circulation between finance and real economy, we are required to provide conditions for innovation activities of real economy and improve the profitability of real economy through market opening, relaxation of access and institutional loosening. In addition, we should weaken financial repression, improve the risk pricing level of financial institutions, and reduce the distortion of risk pricing. Coordination between financial risks and benefits need to be strengthened to improve the ability and efficiency of financial services to the real economy, reduce the idling of funds in the financial field, avoid the unreality of funds and promote smooth circulation between finance and the real economy.

Second, we will make the best of our competitive advantages so as to participate in the international circulation. Emphasis on domestic circulation is not to work behind closed doors. Opening up is the only way towards prosperity and development. The great rejuvenation of the Chinese nation can only be finally realized in an open environment. It is therefore necessary for China to open up the international and domestic circulation and actively participate in the international circulation, so that the "open circulation" will bring prosperity and progress. At the beginning of reform and opening-up, based on the principle of comparative advantage, China introduced a large amount of foreign capital and boosted the development of labor-intensive industries; as a result, the advantage of China's huge labor has been integrated into the international circulation. On the one hand, this has accelerated the transfer of rural surplus labor and brought into play the factor endowment; on the other hand, it helped accumulate a large amount of capital and technology, thus paying the way for domestic economic circulation through international trade. At present and in future several years, the "seed money" and confidence of China's integration into the international circulation lie in: (1) relatively complete industrial chain, (2) relatively perfect infrastructure, (3) huge consumer market, (4) higher potential growth rate and future development opportunities, and (5) more open market and better business environment. All these constitute new advantages for China to participate in international cooperation and competition in the new period.

4.3 Expanding Middle-Income Groups

The scale of middle-income people will be expanded to form an olive-shaped distribution structure in which middle-income people account for the majority. On the one hand, this will promote the common prosperity of all members of society by improving the income distribution and optimizing the income distribution structure, and will ensure the fruits of economic growth benefit all the people more fairly. On the other hand, this will further increase the consumption demand of residents, effectively stimulate domestic demand, and ensure China moves towards a stable and high-income stage.

It is particularly noted that the middle-income group is a "social stabilizer", and that the expansion of middle-income groups is an important way to cope with the proliferation of populist thoughts and promote social harmony and stability. Problems concerning income distribution and middle-income groups have been manifested by the Occupy Wall Street movement caused by the disappearance of the middle class in the United States, by the economic and social turmoil caused by the prevalence of populism in Latin America, and by the worldwide concerns aroused by the *Capital in the Twenty-First Century* in the world. In fact, they are serious problems about the long-term peace and order of a country.

4.3.1 Estimating the Size of Middle-Income Groups

Middle-income groups generally refer to groups whose income remains at the middle level of the whole society, whose employment is relatively stable and whose life is relatively affluent. Similar to the identification of poverty, there are absolute standards and relative standards for defining a middle-income group. In addition, the academic circles have extended the evaluation criteria from income to property, occupation, consumption and other categories. Therefore, there have emerged different estimates of the scale of middle-income groups. According to various estimation results, China's middle-income groups currently account for 20-30% of its total population, less than 1/3. Due to poor labor market and prominent problems such as discrimination and labor market segmentation in developing countries, it is very likely that some groups who can get middle income fail to reach the middle income level, but still wander in the ranks of low- and middle-income groups or even lowincome groups. Therefore, the ability of labor force closely related to income is taken as an index to define a potential middle-income group. According to the research on the relationship between wages and individual characteristics of workers in labor economics, education is an important factor affecting workers' wage income, and workers with higher education level have higher labor productivity that can boost their returns in the labor market.⁹ In addition, from the perspective of "Leather Scrolls" effect, education has the function of identification and screening, which can identify people with high labor productivity.¹⁰ It can be seen that education is more suitable for the definition of potential middle-income groups. Besides education, occupation is also an important factor reflecting a laborer's capabilities. In accordance with the Opinions of the State Council on the Implementation of Stimulating the Vitality of Key Groups and Promoting the Income Increase of Urban and Rural Residents (GuoFa [2016] No.56), six groups, including skilled talents, new professional farmers, scientific and technical personnel, small and micro entrepreneurs, enterprise managers and civil servants, were taken as potential middle-income groups for estimation of their scale.

Based on income distribution survey data in 2013, the weight of sample data was adjusted to calculate the proportion of six key income-increasing groups in the sample, including high-skilled workers, professional and technical personnel, small and medium-sized entrepreneurs, enterprise management personnel, public servants of government and social management departments, and new professional farmers. Then, the proportion of the six income-increasing groups was multiplied by the total population of Chinese mainland at the end of 2018 (1.39538 billion), so as to obtain the size of the six potential middle-income groups. For calculation results, see Table 4.1.

Table 4.1 shows that the six income-increasing groups account for 23.72% of total population. The six income-increasing groups account for 42.64% of the employed population. In terms of scale, there are 330.98 million people in the six major

⁹ Mincer (1974).

¹⁰ Spence (1973).

Six income-increasing groups	Proportion of the total population (%)	Scale (10,000 persons)	Proportion of employed population (%)
Highly skilled workers	10. 82	15,098	19.45
Professional and technical personnel	4.65	6489	8.36
Small and medium-sized entrepreneurs	5.68	7926	10.21
Enterprise management personnel	1.21	1688	2.18
Public servants of government and social management departments	1.04	1451	1.87
New professional farmers	0.32	447	0.58
Other employed persons			57.36
Totally	23.72	33,098	42.64

 Table 4.1
 Size and proportion of six income-increasing groups

Source The author's calculation was based on China Statistical Yearbook (2019) and the survey data of income distribution of Chinese residents in 2013 (China Institute for Income Distribution, Beijing Normal University)

income-increasing groups, including 150.98 million high-skilled workers, 64.89 million professional and technical personnel, 79.26 million small and medium-sized entrepreneurs, 16.88 million enterprise management personnel, 14.51 million public servants and social management departments, and 4.47 million new professional farmers.

The above analysis shows that the existing middle-income groups, together with potential middle-income groups, have a considerable scale and account for a large proportion of Chinese residents. However, the proportion of middle-income groups in OECD countries is nearly 2/3, and that in emerging market economies is also between 1/3 and 1/2.¹¹ In comparison with OECD countries and emerging market economies, there is still much room for China to improve the scale of middle-income groups. On the one hand, we need to adjust the macro distribution structure in order to improve the absolute income level of each income group. On the other hand, we need to improve the relative income level of low-and middle-income people.

¹¹ OECD (2016).

4.3.2 Policy Options for Expanding the Scale of Middle-Income Groups

(1) According to a research on increasing the proportion of labor remuneration and reinforcing efforts in income redistribution, the primary distribution effect of the labor market is decreasing

With the slowing transfer of agricultural surplus labor force, the expansion of urban and rural employment and the reallocation of resources are no longer carried out at the pace of violent storms as before, the comparative advantage of labor-intensive manufacturing industry is also weakening, and the international trade is less dominated by developed countries. Accordingly, the primary distribution of the labor market mechanism can no longer solve the income distribution problem alone, nor can it solve other problems in improving living standards.¹² To this end, we will increase the proportion of labor remuneration, and reinforce our effort in income redistribution. Efforts will be exerted to increase the proportion of labor remuneration in primary distribution so as to continue achieving the synchronization between the growth rate of residents' income and the speed of economic development, and between the increase of labor remuneration and the improvement of labor productivity. In the meantime, we will focus on balancing the distribution relationship between capital and labor, such as improving the factor market environment and mechanism, breaking market monopoly and price distortion, eliminating market segmentation and identity discrimination, and increasing fair opportunities and competition. In redistribution, we should improve the redistribution regulatory mechanism that is based on taxation, social security and transfer payment, strengthen the regulating function of revenue, improve the direct tax system and gradually increase its proportion. Relevant systems and policies will be improved to rationally adjust the distribution relationship among urban and rural areas, regions and different groups. International comparison shows that China's redistribution is less than that of OECD countries. Excluding Chile and Mexico, which have a large income gap in OECD countries, the reasonable income distribution in these high-income countries was actually formed after redistribution. For example, through taxes and transfer payments, the Gini coefficients in these countries dropped from an average of 0.473 to 0.306, down 35.3%. However, China's redistribution policy has only reduced the Gini coefficient of income gap by about 10%.¹³ Therefore, we must further increase efforts in adjustment of income redistribution.

(2) Improving the development of capital market, and increasing residents' property income

The proportion of property income of Chinese residents is low, and the source of property income is single. As the development of China's capital market remains laggard, interest income has become the main source of property income for residents.

¹² Cai (2020).

¹³ Ibid.

At the same time, the decreasing interest rate (even lower than the inflation rate) has led to the possible shrinkage of residents' property. From the perspective of residents' income structure, the development of multi-level capital market will be improved to expand the channels for residents to obtain and increase property income. More importantly, we will speed up the implementation of farmers' land property rights for some farmers to enter middle-income groups. The biggest space for multiplication of middle-income groups lies in rural areas, while the biggest constraint lies in the failure to implement farmers' land property rights. It's not that farmers lack property, but that farmers have not yet made real right and capitalized their property such as homestead, contracted land and collective land, making it difficult to bring stable property income to farmers.

(3) Advancing industrialization and urbanization, and promoting free flow of labor

Efforts will be taken to promote industrialization and urbanization so as to achieve the transition from dual economy to unitary economy, increase farmers' income, and realize the transformation from low-income people to middle-income people. The low-income group is composed largely of farmers. The main reason lies in the inconsistency of improved labor productivity between agriculture and industry caused by industrialization under the dual economy, which has widened the income gap between urban and rural areas in a short time. But in the long run, with the continuous advancement of industrialization and urbanization, low-income farmers will enter the industrial sector. As the number of agricultural employees decreases, the agricultural labor productivity will continue to improve, thus increasing farmers' income and transforming dual economy into unitary economy. The labor productivity of agricultural and industrial sectors will tend to strike a balance, and the urban-rural income gap will also narrow. In this process, it is necessary for China to reform the existing household registration system of urban-rural division, which hinders farmers' transfer to cities, and promote farmers' rational flow to industrial sectors and cities. In addition to promoting industrialization and urbanization and realizing the convergence of urban and rural labor productivity through rational labor flow, the rural vitalization strategy is a comprehensive strategy to actively narrow the urban-rural income gap. Since the implementation of the strategy for more than two years, the institutional framework and policy system have basically formulated, and some regions have also made progress in upholding the Party's management of rural areas, revitalizing rural industries, and cultivating rural talents.¹⁴ However, we are faced with the shortcomings in infrastructure, factor input, rural governance and farmers' enthusiasm for participation, especially including the poor effect of the rural vitalization strategy in improving farmers' income. All these require substantial breakthroughs and progress during implementation of the rural vitalization strategy. We will promote development of the labor market. A unified labor market will be created to allocate labor resources according to the principle of efficiency. Labor income is the main source of income for middle-income groups. From the perspective

¹⁴ Agriculture and Rural Committee of the National People's Congress, Investigation and Thinking on the Implementation of Rural Vitalization Strategy, *Qiushi*, No. 3, 2019.

of macro distribution structure, the fundamental measures to improve the proportion of labor remuneration in the primary distribution include expanding employment, deepening the reform of wage system, and promoting the reasonable increase of wages of low-and middle-income workers. From the perspective of residents' income distribution, building a unified labor market, allocating labor resources according to the principle of efficiency and encouraging free flow of labor force can not only improve efficiency, but also eliminate unfair income gap.

(4) Setting reasonable minimum wage standard to enhance income mobility

By setting a lower wage limit for workers, the minimum wage policy can ensure reasonable and effective growth of the wage income of low-wage groups. However, the realization of this role needs to be based on strict implementation of the minimum wage policy. This has been verified by our research. Pursuant to the internationally accepted definition of low wage, the low wage is defined as 2/3 of the median wage. It is found that simply raising the minimum wage will not reduce the probability for workers to become low-wage workers. However, if the minimum wage policy can be strictly implemented, raising the minimum wage standard can significantly reduce the probability.

Reasonable income mobility reflects the economic vitality and fair opportunities of a society. On the contrary, in a society lacking income mobility, low-income people and high-income people will gradually solidify, and low-income people will be deprived of the opportunities to change their income status, thus indicating the decline of social and economic vitality and the loss of fair opportunities. For the middle and low income groups, a certain range of upward income mobility will help them jump to the middle income group.

Improving education level will also help boost income mobility. Breaking occupational segregation, promoting occupational mobility and establishing a career promotion channel for employed people are also important means to promote and improve income mobility. Non-state-owned sector is the main channel to absorb employment, and it is also the main source of employment and income for most ordinary people. Breaking trade monopolies, opening market and promoting the development of nonstate-owned sectors are conducive to promoting income growth and upward income mobility of ordinary people.

(5) Meeting requirements of new technological revolution and improving the level of human capita

We need to change the mode of economic growth, promote the adjustment of industrial structure and the upgrading of employment structure with innovation, improve the level of human capital, and expand the proportion of middle-income groups. Middle-income groups are mainly white-collar workers with higher human capital level. To increase the proportion of middle-income people, we must improve the human capital level and realize the transformation of employment structure, so as to create more jobs for labor force with higher human capital level. This requires changing the current extensive economic growth mode which depends on the advantage of low labor cost. On the basis of improving the level of human capital through skills training and improving the education system, innovation should drive the adjustment of industrial structure and promote the optimization and upgrading of employment structure.

The new technological revolution not only improves labor productivity and promotes economic growth, but also has an impact on middle-income groups. The new technological revolution and high skills are complementary, and the skill-biased technological progress has greatly improved the labor productivity of high-skilled high-income groups. The physical labor of low-income groups is usually not routine, and it is difficult to be replaced by mechanization and automation due to new technological revolution. In contrast, middle-income groups are mostly engaged in routine work and are easily replaced by machines. Although the supply side of the labor market will gradually adapt to changes in the demand of labor market caused by new technological revolution through automatic adjustment, this adjustment process is usually not completed instantaneously. In this adjustment process, the income level of middle-income groups is often negatively impacted by new technological revolution. Therefore, we will improve the education level of middle-income groups, upgrade their human capital, help them cope with the challenges posed by new technological revolution, and prevent them from being marginalized in the process of "polarization" of the labor market; that is, the employment demand is biased towards the high-end and low-end poles, thus leading to the deterioration of income distribution.

4.4 Government Administration by the Rule of Law: the Core of the Law-Based Market Economy

The rule of law is the basic way of governing the country and provides potent support for the state governance system and capacity. The rule of law is an indispensable and important aspect in modernizing state governance, and is also the meaning of transforming China's institutional advantages into state governance efficiency. Over the past 40 years, outstanding achievements have been made in the market-oriented reforms, contributing to the development and improvement of the socialist market economic system with Chinese characteristics. However, the promotion of marketization, especially the "barbaric growth" of market economy, has also brought a number of problems, many of which were caused by the lack of rule of law and imperfect systems. The strategic goal of high-quality development requires substantial progress in the legalization of market economy. Legalization is here focused on correctly handling the relationship between government and market, especially by means of legalization, so as to guarantee "fully leveraging the decisive role of the market in allocating resources and giving better play to the role of government". Law-based market economy depends on the rule of law.

4.4.1 From the "Barbaric Growth of Market Economy" to Law-Based Economy

"Barbaric growth" is an inevitable stage in the development history of market economy for hundreds of years. The barbaric growth of the "Gilded Age" in the United States (from the 1970s to the end of the 19th century and the beginning of the 20th century), on the one hand, brought about rapid economic development, which became a key period for the American economy to catch up with Britain, and on the other hand, it also gave birth to a large number of monopolistic enterprises with international influence and social corruption. Therefore, it was argued that "the inevitable conflict between economic concentration and social anomie and between the emergence of large enterprises and the decline of small enterprises was accompanied by most major regulatory and legal changes in the late 19th century".¹⁵

The rule of law is the institutional guarantee for effective operation of modern market economy, which performs it functions through two channels. The first channel is restraining the public power, i.e. restraining the government's arbitrary intervention in economic activities. The second channel is restraining private rights, that is, standardizing the behavior of economic players, including definition and protection of property rights, implementation of contracts and laws, fair judgment, and maintenance of market competition. This usually operates when the government participates as a third party in economic transactions without directly interfering with economic activities, and plays its role in supporting and promoting market. Without these two channels as institutional guarantee, there will be no safe property rights, independence of enterprises, or competitive environment and efficient operation of market, and nor will there be sustainable economic development.¹⁶

It was stated in the *Resolution of the Central Committee of the Communist Party of China on Major Issues Concerning Comprehensively Advancing the Rule of Law* at the Fourth Plenary Session of the Eighteenth Central Committee of the Communist Party of China that "the socialist market economy is essentially a law-based economy. To make the market play a decisive role in resource allocation and give full play to the role of the government, we must take protecting property rights, maintaining contracts, unifying market, equal exchange, fair competition and effective supervision as the basic guidance", and require the whole society to "strengthen the awareness of rules and advocate the spirit of contracts".

Whether there is legal protection is an important criterion to distinguish a good market economy from a bad one. The disadvantages of the barbaric growth period of market economy include lack of property rights protection, prevalence of monopoly, rampant corruption, market manipulation, false advertising, product quality problems, food safety problems, and illegal sewage discharge problems. They also represent a bad market economy. In the final analysis, these problems are closely related to

¹⁵ Fishback et al. (2013).

¹⁶ Qian (2000).

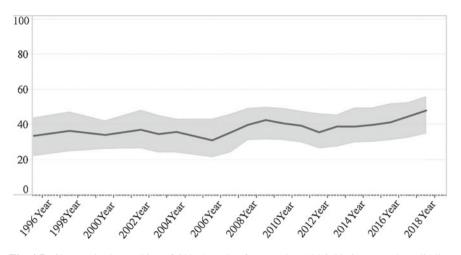


Fig. 4.7 Changes in the Ranking of China's Rule of Law Index (1996–2018). *Note* The solid line indicates the rule of law index in China, and the shadow indicates the error degree. *Source* Rule of law sub-item in the WCI (Worldwide Governance Index) database. http://info.worldbank.org/government/wgi/

the imperfection of market regulation and rule of law. To address some of these problems, Chinese government departments have specially issued relevant documents and policies, but they have not yet implemented in legal texts and institutional guarantees. There are legal provisions in some aspects, but they have not been implemented in a proper manner. One example is the protection of non-public property. The imperfect rule of law reflects the government's deficiency in legal supply (as public goods). According to Fig. 4.7, China's rule of law index has generally shown an upward trend from 33.67 in 1996 to 48.08 in 2018 (the higher the index, the better the rule of law). Especially since 2012, China's rule of law index has maintained an upward trend. However, this index is still low in the global ranking,¹⁷ and there is still a long way to go in the building of the legal system in China.

4.4.2 Legal Guarantee for Modern Market Economic System

The transition from a "barbaric" market economy to a modern market economy requires building a modern market economy system and ensuring the decisive role of the market in resource allocation. The building of a modern market economy system must be based on legal protections, the most important of which are delimitation of property rights and promotion of fair competition.

¹⁷ The World Governance Index (WGI) is controversial, so the rule of law index may not be completely comparable.

First, protecting property rights according to law. To strengthen the protection of property rights requires comprehensively advancing the rule of law. The property right system serves as the cornerstone of socialist market economy, and protecting property rights is a prerequisite for upholding the basic socialist economic system. Our ancestors believe that only those who have a certain amount of property income have certain moral values and code of conduct. Effective protection and realization of property rights of economic players are essential to the sustainable and healthy development of economic society. Since the reform and opening-up, the reform of property rights system has been advanced in China to build a modern property rights system and a legal framework for property rights protection with clear ownership, clear rights and responsibilities, strict protection and smooth circulation. The awareness of property rights protection in the whole society has been continuously enhanced. and the protection strength has been continuously strengthened. However, there are still many problems in the protection of property rights. The relationship between owners and agents of state-owned property rights is not clear enough. Problems such as insider control and related party transactions, which may lead to the loss of stateowned assets, the use of public power to infringe on private property rights, and the illegal seizure, detention and freezing of private enterprise property, occurred from time to time. The intellectual property rights are not under sufficient protection, and infringement is prone to occur frequently. To solve these problems, we must improve the property rights protection system and effectively protect the property rights of economic organizations and citizens of various ownership systems according to law. Emphasis will be placed on promoting and improving the legal system of equal protection of property rights. We will take solid steps to implement the *Civil Code*, improve the legal systems related to property rights, contracts and intellectual property rights. We will also eliminate laws and regulations that violate fairness, and take equal protection as the basic principle for regulating property relations. We will improve the legal system of market entities based on the organizational form of enterprises, in which investors bear responsibilities. In addition, we will make overall plans to abolish some laws and administrative regulations of market entities formulated according to different types of ownership, carry out special clean-up of departmental rules and normative documents, and equally protect all kinds of market entities. We will increase efforts in penal protection of non-public property. Enhancing people's sense of security of property and wealth and boosting social confidence will help create good expectations among the public, motivate entrepreneurial innovation of various economic entities, safeguard social fairness and justice, and maintain sustainable and healthy economic and social development and long-term stability of the country. We will increase efforts in IPR protection, and achieve high-quality development driven by innovation. Therefore, how to protect intellectual property rights and stimulate the enthusiasm for innovation will be particularly critical. First, we will further improve the laws and regulations related to intellectual property protection, reasonably lower the threshold of conviction, and gradually establish a punitive compensation mechanism for intellectual property infringement, so as to deter and contain potential infringement, and improve compulsory remedial measures after infringement, including infringement injunction, damage compensation, destruction of goods and other systems. Second, we will strengthen law enforcement to protect intellectual property rights. Relevant law enforcement departments should focus on establishing more transparent working procedures and norms, refining rules, and strictly preventing arbitrariness and selectivity in law enforcement. Third, we will minimize the government's simplistic intervention in patents or linking them with specific industrial policies or talent policies out of the kindness of promoting technological innovation, and gradually improve the market-oriented incentives for them, so that market forces become the main driving force for improving the quantity and quality of patents. Fourth, we will study the definition and protection of human capital property rights of scientific and technical personnel within the system, and formulate appropriate legal systems conducive to innovative development and enhancing national competitiveness, so as to release the innovation vitality of scientific and technical personnel.

Second, safeguarding fair competition. Fair competition is essential to market economy. The basic position of competition policy in the national policy system will be strengthened to improve the policy system and legal system for competition, and clarify the priority objectives of competition. The policy coordination mechanism will be established to advocate competition culture and promote effective implementation of competition policy.

First, we will implement competition policy by implementation of the antimonopoly law. To address problems in China's anti-monopoly practice, efforts will be made to improve the normative system of anti-monopoly law from two aspects. (1) We will improve the norms of the Anti-Monopoly Law of the People's Republic of China (hereinafter the Anti-Monopoly Law), such as the controversial vertical monopoly agreements, exemptions, and penalties for concentration of operators in the implementation of the anti-monopoly law. (2) We will transform the competition policy that has achieved good response in practice into relevant contents of the Anti-Monopoly Law, consolidate its basic position in the Anti-Monopoly Law, and legalize the fair competition review system as an organic part of the Anti-Monopoly Law so as to enhance its practicality and standardization. (3) We will integrate law enforcement responsibilities and optimize the implementation of the Anti-Monopoly Law. The Institutional Reform Plan of the State Council promulgated in March 2018 has integrated the anti-monopoly law enforcement powers entitled to the former State Administration for Industry and Commerce, the National Development and Reform Commission and the Ministry of Commerce, and established the State Administration for Market Regulation to exercise the anti-monopoly law enforcement power. From the form of the organization, China's anti-monopoly law will be enforced solely by the State Administration for Market Regulation, but this does not mean that law enforcement can be effectively integrated to realize uniform law enforcement, i.e. internal institutional requirements, such as the consistent understanding and use of norms, and the consistent determination of the nature of the same behaviors. In fact, we need to do much to improve the enforcement of the Anti-monopoly Law. As far as its supporting system is concerned, the previous multi-agency law enforcement has led to inconsistent detailed rules for implementing one article in the law, so we need to stay patient in correcting these inconsistencies. Therefore, we should clarify

and optimize the assignment of responsibilities for the anti-monopoly law enforcement within the State Administration for Market Regulation as soon as possible, so as to coordinate and strengthen the drafting of supporting rules and guidelines and constantly improve the implementing mechanism of the anti-monopoly law.¹⁸

Second, we will implement the fair competition review system. The fair competition review system aims to address excessive and unreasonable government intervention that impairs competition, and ensure that all kinds of market players equally use production factors and fairly participate in market competition. It is a system in which the anti-monopoly law enforcement authority or other agencies analyze and evaluate the possible or existing impacts of public policies on competition, and put forward alternative solutions that do not hinder the realization of policy objectives but do the least harm to competition. According to the practice of mature market economies such as the European Union, most of these economies have established the basic principle of "competition policy preceding over other policies", and on this basis, they have built a competition review system for legislation and related policies. If the object of review is detrimental to fair competition, it should be adjusted or abolished. Through years of practice in China, we have achieved good results by implementation of this system. The system can examine laws, administrative regulations, local regulations and departmental rules that have not yet been promulgated. It can also evaluate and adjust the possible effects of excluding and restricting competition produced by various economic policies, including industrial policies, so as to avoid their adverse effects on competition to the maximum extent and eliminate regional trade barriers, thus advancing comprehensive deepening of reforms.

Finally, the legalization of the fair competition review system will be combined with the revision of the *Anti-Monopoly Law*, The competition policy and the fair competition review system that acts as its practical mechanism will be written into the *Anti-Monopoly Law* and clearly defined as the basic rules of market economy in the article of General Provisions. Such combination will enhance the rigidity and coercive power of the fair competition review system and truly realize the policy function of maintaining fair competition.

4.4.3 Rule of Law for the Government is the Key to Legalization of Market Economy

"Giving better play to the role of government" is an important aspect of improving state governance, and requires joint support of state capacity and rule of law for the government. Lack of state capacity makes it difficult to promote state governance; if the state capacity is not restrained, it will erode the market and society. Therefore, the rule of law for the government will be used to restrain and balance the state capacity, advance modernization of state governance, and enhance the state governance efficiency.

¹⁸ Yong (2018).

First, the rule of law for the government is an organic unity of the "limited government" and "well-functioning government". On the one hand, the government should perform its functions and exercise its powers within the statutory scope. Most importantly, the boundary of government powers must be defined. This is what a "limited government" requires. A "limited government" implies that the government is not an omnipotent government that has unlimited powers to intervene in everything. There must be a legal boundary for government activities, which is used to scientifically demarcate the dividing line between government and market, society and citizens. The power and authority of a government are granted by law, i.e. the lawful power and statutory authority. The activities of the government must be limited within the scope of law and under legal restrictions so as to avoid damaging public interests or infringe on the legitimate rights and interests of citizens, or disrupting the order of fair competition on market. On the other hand, the government must actively perform all of its duties without any negligence. This is what a "well-functioning government" requires. A "well-functioning government" means that the government must carry out sound control and management of all affairs within the purview of its power and authority. It should be active in performing its functions to improve efficiency, and provide high-quality and efficient services for the needs of the public. This includes providing public goods such as social fairness, justice and security, maintaining macroeconomic stability, strengthening and optimizing public services, ensuring fair competition, strengthening market regulation, safeguarding market order, facilitating sustainable development, promoting common prosperity and making up for market failures. These are the extent for the government to actively perform its duties, and also are the points that require no dereliction of duties.

Second, the building of a rule of law for the government and the transformation of government functions are complementing each other. Government functions are essential to government administrative activities. The organic unity of a "limited government" and a "well-functioning government" has put forward requirements for transforming government functions. To "confine the exercise of power within the institutional cage and keep government operating on the basis of law", we should transform government functions and urge the government to do the right thing according to law and do anything in a proper manner. The transformation of government functions has been prioritized in previous institutional reforms since the reform and opening-up. Despite some achievements, there are several problems that have not yet been solved, including: (1) the government has placed more emphasis on specific issues than on macroscopic ones, on approval than on oversight of new companies, and on management than on providing services for enterprises; (2) the government has not yet rationalized its relationship market and the public; (3) the government exceeds its authority to perform its functions, or failed to play its role or abused its powers and authority; and (4) the government has not yet integrated, coordinated or improved the efficiency of reforms. In brief, it is not easy job to transform government functions in a short term. Therefore, "the rule of law will move towards wherever the government functions are transformed. To give full play to the guiding and normative role of law in transforming government functions, we

should stay focused on consolidating the achievements made during the transformation of government functions by formulating new laws and regulations to guide and promote the next step of such transformation. We should remove obstacles hindering the transformation of government functions by amending or abolishing inappropriate existing laws and regulations".¹⁹

Third, the building of a rule of law for the government should be preconditioned by standardizing major administrative decision-making procedures. At the first meeting of the Commission for Law-based Governance under the CPC Central Committee, President Xi Jinping emphasized that we should promote law-based government administration and improve the decision-making mechanism according to law. In the process of modernizing the state governance system and capacity, keeping major decisions of administrative organs operating in a normative and law-based manner will effectively enhance law-based government administration, and enable the whole society to enjoy the high-quality social governance and development achievements brought about by scientific and democratic decision-making according to law. First of all, standardizing major administrative decision-making procedures is an urgent need to enhance law-based government administration. Administrative decision-making is the starting point of the operation of administrative power. Standardizing administrative decision-making behaviors is the first step in promoting law-based governance and the focus of standardizing administrative power. Second, standardizing major administrative decision-making procedures is an inevitable requirement for promoting scientific, democratic and legal decision-making. We will promote scientific, democratic and law-based decisions made by administrative organizations. We will speed up the need to standardize major administrative decision-making procedures, clarify major problems concerning administrative decision-making, decision makers, authority, procedures and responsibilities. We will stay focused on promoting the legalization of major administrative decisions so as to restrict and standardize decision-making behaviors with scientific and rigid decision-making systems, strive to control decision-making risks, correct illegal and improper decisions in time, and effectively improve decision-making quality. Finally, standardizing procedures for major administrative decision-making is an important guarantee for safeguarding the legitimate rights and interests of the people and for promoting social fairness and justice. With a great impact on economic and social development, a major administrative decision often involves major public interests or vital interests of the public, and may affect the stability of reform and development. Therefore, the decision-making organizations are required to properly handle the interests of all parties in decisionmaking, give priority to safeguarding the legitimate rights and interests of the people and promoting social fairness and justice, and ensure that decision-making can be widely recognized and supported by the people and that the achievements of reform and development can benefit all people fairly.

¹⁹ Xi (2016).

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