

Exploring the Pathways for Constructing China's New Mode of Production Relations from the Perspective of Historical Materialism

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Abstract

The principle of the dialectical relationship between productive forces and relations of production, viewed from the perspective of historical materialism, provides solid theoretical guidance for understanding new forms of relations of production. These new relations represent an institutional model adapted to the development requirements of high-quality productive forces characterized by digitalization, intelligence, and green transformation. They constitute a systematic innovation in ownership systems, production organization, and distribution mechanisms. Key features of these new relations include the co-development of multiple forms of ownership with shared rights over new factors of production, flattened and networked collaboration, and the participation of knowledge, technology, and data in distribution. Currently, building such new relations faces challenges including "identity barriers" and "functional mismatches" among market entities, restricted circulation of new factors due to unclear property rights and lack of rules, misalignment between contributions and returns, and insufficient coordination between government and market. To address these issues, it is essential to uphold and improve the fundamental economic system, strengthen the foundation for coordinated development across multiple ownership forms; deepen institutional and mechanistic reforms to break down barriers to factor mobility; advance innovation in distribution systems by improving mechanisms that combine labor-based distribution with distribution according to factor contributions, and enhance redistribution regulation; and maintain a balanced coordination between an "efficient market" and an "active government."

Keywords

Materialist conception of history; New type of production relations; New quality productive forces.

1. Introduction

Historical materialism profoundly reveals that the contradictory movement between productive forces and production relations is the fundamental driving force for the evolution of social formations, that is, productive forces determine production relations, and production relations exert counter-effects on productive forces. This basic principle not only lays a solid philosophical foundation for Marxist political economy and scientific socialism, but also provides a core theoretical coordinate for us to understand and grasp social development.

Since the 20th National Congress of the Communist Party of China, China has achieved remarkable results in high-quality development, becoming the main theme of economic and social development. New quality productive forces are generated through revolutionary breakthroughs in technology, innovative allocation of production factors, and in-depth transformation and upgrading of industries. They are reshaping the economic and social

structure with unprecedented strength and have raised urgent requirements for the adaptability of traditional production relations in terms of factor allocation, institutional supply, and distribution mechanisms. Therefore, following the basic principles of historical materialism, actively constructing a new type of production relations that are compatible with new quality productive forces is not only a rich development and vivid practice and verification of the basic principles of Marxism in the contemporary era, but also a core proposition and inevitable requirement for us to overcome internal and external challenges, win strategic initiative, and steadily promote China's modernization.

2. The Essence of New Production Relations

Within the theoretical framework of historical materialism, the dialectical relationship between productive forces and production relations is the key to understanding social development. With the advancement of new and superior productive forces, traditional production relations have become unable to meet the demands of their development. Therefore, the establishment of new production relations has become inevitable. This is why the concept of "newly superior productive forces" was first publicly reported and became an action guide for promoting the high-quality development of China's economy. Similarly, the concept of "new production relations" was also proposed.

Production relations, as objective economic relations formed by people during the process of material production and not subject to human will, consist of three core aspects: First, the ownership of production materials, that is, who owns the production materials and who controls them. These are the foundation of production relations and determine their fundamental nature; second, the positions and interrelationships of people in production, that is, in the production process, are there relationships of domination and subordination, control and being controlled, or equal collaboration; third, the distribution of products, that is, according to what principles and methods social products are distributed, such as distribution based on capital, labor, or other forms. It is the interrelation of these three aspects that constitutes a complete economic structure of a society. And the so-called new production relations are a more advanced form that are based on new quality productive forces represented by digitalization, intelligence, and greenness, and systematically innovate and develop the elements of traditional production relations.

At the level of factor allocation logic, it has achieved a leap from "factor-driven" to "innovation-driven". In traditional production relations, the allocation of traditional factors such as land, labor, and capital follows the law of diminishing marginal returns, and the adjustment of production relations mostly revolves around the redistribution of factor stocks. However, the new production relations directly confront new production factors with characteristics of "non-competitiveness" and "non-exclusivity", such as knowledge, technology, and data. At the same time, the spillover effect of knowledge enables multiple entities to utilize it simultaneously, and the iteration speed of technology has broken through the time and space limitations of traditional factors. The reusability of data can also achieve value increment in use. This requires through institutional innovation to establish mechanisms for generating, confirming ownership, and trading of new factors: for example, establishing a "collaborative system of industry-university-research-application" for the market-oriented transformation of scientific research achievements, stimulating the enthusiasm of innovation entities through the intellectual property protection system, and realizing the maximum release of data value through the cultivation of the data factor market.

At the level of adaptability, its essence lies in achieving the dynamic matching of "institutional supply" and "productive development demands". The new quality productive forces are driven by disruptive technologies such as artificial intelligence, quantum information, and

biotechnology, and their industrial forms exhibit characteristics such as "technology-intensive", "innovation-coordinated", and "cross-border integration". This poses new requirements for the new production relations that are different from the traditional industrial era. From the perspective of market role, the development of new quality productive forces requires full market competition to stimulate innovation vitality. At the same time, the selection of technical routes, the flow of innovation resources, and the iteration of products and services all need to be guided by market signals. Therefore, the construction of new production relations requires strengthening the decisive role of the market in the allocation of new factors and eliminating institutional obstacles such as administrative monopolies and industry barriers that restrict the free flow of factors.

At the level of government role, the research and development of disruptive technologies have the characteristics of high investment, high risk, and long cycle, and involve areas such as basic research and common technology supply that are "market failures". This requires the government to play the role of an "active government" through means such as strategic planning (such as formulating the layout of new infrastructure construction), policy guidance (such as tax incentives for research and development investment), and risk prevention (such as ethical norms for new technologies). This "synergy mechanism of market decisive role and government strategic guidance" is not a simple "dual opposition", but has formed a "complementary and symbiotic" institutional environment. This institutional environment is precisely the key manifestation of the new production relations adapting to the new quality productive technology and industrial characteristics.

3. The Intrinsic Connection between New Production Relations and New Quality of Productivity

The new quality productive forces are the result of the combined operation of the three systems: the technological system, the factor system, and the industrial system [1]. The vigorous development of new quality productive forces is a prominent feature of the new era. And the new production relations, as the institutional guarantee for the development of productive forces, their compatibility with the new quality productive forces directly affects the quality of social and economic development.

The "disruptive breakthrough" of new qualitative productive forces is bound to trigger "adaptive adjustments" in the production relations. Marx pointed out: "Social relations are closely related to productive forces. As new productive forces are acquired, people change their production methods. As the production methods, that is, the means of making a living, change, people will also change all their social relations. The hand mill gave rise to the feudal lord-dominated society, while the steam mill gave rise to the industrial capitalist-dominated society [2]." This assertion reveals the fundamental constraint of the development level of productive forces on production relations. This transformation is not an accidental institutional adjustment, but rather a profound change in the forms of production factors, production methods, and social division of labor in various fields after the development of productive forces reaches a certain stage, which puts forward "inevitable requirements" for production relations. Its driving logic is reflected in the filling of "institutional gaps" and the correction of "institutional lags".

Marxism, while emphasizing that productivity determines production relations, also attaches great importance to the active counter-effect of production relations on productivity. From the perspective of historical materialism, the core function of production relations lies in providing "rule supply" and "order support" for the development of productivity. The institutional guarantee role of new production relations for new quality productivity is achieved through the construction of a system of institutions that align with the characteristics of new elements and

the laws of innovation. The guarantee logic is reflected in the dual empowerment of "innovation impetus" and "elemental flow".

From the perspective of stimulating innovation momentum, under the new relations of production, innovation becomes the core driving factor of social production. Innovation is the primary driving force for development, and new quality productive forces take scientific and technological innovation as their core driving force. However, scientific and technological innovation is characterized by large upfront investment, long transformation cycles, and high uncertainty and risk. Without clear delineation of property rights and effective protection of returns on innovation results, it is highly vulnerable to a free-rider dilemma, in which enterprises are reluctant to invest in research and development and researchers lack motivation to commercialize their achievements, ultimately producing the paradox of high innovation input but low transformation efficiency. The new relations of production resolve this problem through institutional innovation in property rights. On the one hand, they clarify the ownership of intellectual property rights in scientific and technological innovation results, protecting researchers' intellectual labor (such as detailed rules on the ownership allocation of service invention achievements) while safeguarding enterprises' legitimate returns from R&D investment (such as legal protection of exclusive patent exploitation rights), thereby forming an incentive mechanism in which those who innovate benefit. On the other hand, they establish a tiered mechanism for distributing innovation returns, reasonably allocating the commercialization returns of innovation results among research teams, universities and research institutes, and enterprises according to their contributions. This breaks the inertial egalitarian distribution pattern and allows owners of innovation factors to obtain corresponding returns through their factor contributions. This institutional arrangement of "property rights delineation-benefit sharing" is, in essence, an adjustment of production relations that transforms potential willingness to innovate into actual innovative action, injecting endogenous impetus into the development of new quality productive forces.

From the perspective of promoting the flow of factors, the development of new productive forces relies on the "efficient aggregation" of new production factors such as knowledge, technology, and data. The free flow and optimal allocation of these factors require the construction of "channels" at the institutional level. In the era of digital economy, this rule is manifested as the demand for the "cross-domain, cross-region, and cross-subject" flow of new factors. This aligns with the trend described by Marx, where "the bourgeoisie, due to the expansion of the world market, has made the production and consumption of all countries become global [3]." However, under socialist conditions, it has the value orientation of "common prosperity [4]." New production relations are met through institutional supply: In the field of data factors, a market system with "separate data property rights, standardized transactions, and controllable security" is constructed, that is, the division of ownership, use rights, and income rights of data resources is clarified, a unified national data trading platform is established, data security protection regulations are improved, and data factors can flow freely under compliance to fully release their intrinsic value. In terms of optimizing the business environment, obstacles such as "administrative monopolies, industry barriers, and regional blockades" in institutional mechanisms are eliminated, reducing the cost of the flow of innovation factors. For example, simplifying market access approval, unifying market rules for factors, strengthening full-chain protection of intellectual property rights, etc., are implemented to clear institutional obstacles for the integration of digital economy and real economy. These institutional arrangements provide "soil for factor aggregation" for strategic emerging industries (such as artificial intelligence, biomedicine) and future industries (such as quantum computing, brain-computer interfaces), enabling new productive forces to achieve scale expansion and quality improvement through efficient interaction of factors.

4. The Current Development Situation of China's New Production Relations

Based on the fundamental principle of historical materialism that "production relations are determined by productive forces and in turn act back on productive forces", the development of the current new production relations has always been in sync with the development of new quality productive forces - achieving phased results in adaptive practices, but also encountering practical obstacles that are not in line with the requirements of the development of new quality productive forces due to factors such as the lag of production relations adjustment and institutional inertia. This "existence of progress and problems simultaneously" pattern is the concrete manifestation of the contradictory movement of new production relations and new quality productive forces in contemporary Chinese society.

4.1. The Constraint of Institutional Inertia in the Transformation of Organizational Modes of Technological Innovation

Under the strategic guidance of the development of new productive forces, the country is actively promoting the establishment of the "new national system" for scientific and technological research and development, and has achieved proactive adjustments of the production relations in the organization of major scientific and technological projects. New mechanisms such as "challenge-based competition", "race competition system", and "technical chief responsibility system" have been gradually implemented. In some fields, the traditional model of "unit application, step-by-step approval" for scientific research projects has been broken, and the task formulation rights and technical route decision-making rights have been delegated to the front-line research teams. For example, in the project of battery endurance research for humanoid robots in the Shanghai Zhangjiang National Independent Innovation Demonstration Zone, the "race competition system" was adopted first, with the government providing start-up funds, and five enterprises independently developed along two technical paths of hydrogen fuel cells and solid-state batteries. After one year, the best solution was selected through actual tests for humanoid robots, and the outdated schemes were eliminated. Then, a joint development of a hybrid energy management system was carried out. Liu Wenbo, the project manager of the hydrogen energy industry of the Shanghai Science and Technology Commission, commented on this: "The government takes a step back and hands over the decision-making power to enterprises, which is a new model worth exploring [5]." In the field of biomedical materials, the enterprise Chengdu Nucon Medical Devices Co., Ltd. in Chengdu High-tech Zone adopted the "challenge-based competition" mechanism and became the only national project-taker for "nickel-cobalt-chromium-molybdenum alloy wire" in the metal materials direction. It jointly tackled the research project with several domestic academic and clinical institutions and is expected to achieve domestic substitution in this field [6]. These practices indicate that the organizational mode of scientific and technological innovation is consciously evolving towards "flexibility, networking, and de-administratization", and the adaptability of production relations to productivity has been enhanced.

However, the profound transformation in the way scientific and technological innovation is organized still faces constraints from institutional inertia. First, there is a structural conflict between the new mechanism of "open competition for the best candidates" and the existing project management system. The new mechanism emphasizes "no restrictions on background and results-oriented," but the current budget management and audit supervision systems for scientific research funds still follow the traditional "process control" logic of vertical projects, causing frontline researchers to still face "old problems" in the use of funds, such as tedious reimbursement procedures and rigid budget categories—although the organizational form is new, the governance logic has not fundamentally changed. Second, the intermediate links in the

transformation of scientific and technological achievements remain weak. Although the "empowerment reform" in universities and research institutes has been rolled out, the main investor in the pilot-scale testing stage remains unclear and the risk-sharing mechanism is lacking, causing a large number of patents to face a "valley of death" between the laboratory and the production line. The practice of the National University Biomedical Regional Technology Transfer and Transformation Center (Suzhou) is quite instructive: the center has established a special fund for proof of concept, providing early-stage university research projects with financial subsidies of up to 500,000 yuan [7], and has pioneered the "use before payment" and "Yuan Yan Bao" (park-research insurance) models [8], allowing university patents to be licensed to enterprises first, with default risks covered by insurance, thereby breaking the deadlock of mutual distrust in which universities fear no returns after investing in their achievements and enterprises fear high costs of early-stage technological trial and error. Within less than a year of its establishment, the center has provided proof-of-concept services to 32 universities including Peking University, with 192 projects entered into its database, facilitated the transformation and implementation of 50 projects, and achieved a maximum technology transfer cooperation amount of 176 million yuan [9]. However, such innovative practices are still localized pilot projects, and the risk-sharing mechanism has not yet formed a nationwide institutional arrangement. The relations of production still have a functional deficiency at the key nodes connecting the innovation chain and the industrial chain.

4.2. The "institutional bottlenecks" restricting the circulation of new elements have not yet been overcome.

The market-oriented allocation mechanisms for core factors of new quality productive forces—knowledge, technology, and data—have been progressively improved. In the field of data factors, the *Opinions of the Central Committee of the Communist Party of China and the State Council on Building a Basic System for Data to Give Better Play to the Role of Data as a Factor of Production* explicitly proposes a system of "structural separation of data property rights [10]." Regional data trading platforms have been established in Zhejiang, Guangdong, and other areas, promoting the shift of data factors from static accumulation to dynamic circulation and overcoming the traditional dilemma in factor allocation in which data were difficult to define in terms of rights and could not be traded. In the field of technology factors, most provinces across the country have substantially raised the proportion of income from the transformation of scientific and technological achievements that research and development teams may retain. Some universities and research institutes have, through empowerment reforms, granted researchers long-term use rights over their achievements, effectively stimulating researchers' intrinsic motivation for innovation. In the field of talent factors, the reform of the household registration system and market-based pilot programs for talent evaluation have been advanced simultaneously. The agglomeration effect of technical talent flowing toward innovation hubs such as the Yangtze River Delta and the Guangdong-Hong Kong-Macao Greater Bay Area has begun to emerge, providing talent support for the development of new quality productive forces. This is precisely a conscious application of the objective law that production relations must adapt to the development of productive forces.

Although the aforementioned reforms have achieved positive progress in areas such as data, technology, and talent, the deep-seated structural contradictions remain prominent. The "last mile" of market-oriented allocation of factors has not yet been bridged, and there is still a significant gap between the institutional supply and the demands of productive forces development. Specifically, the current circulation and transformation of new factors mainly face the following several obstacles.

The market-oriented allocation of data as a factor of production faces three major obstacles. First, the delineation of property rights remains ambiguous. The mechanism for separating the

right to hold data resources, the right to process and use data, and the right to operate data products has not yet been fully implemented, and it is difficult to distinguish the ownership of rights and interests between original data and derived data. As a result, enterprises are reluctant to invest in data development and circulation. Second, transaction rules are incomplete. The standard systems for data quality assessment, value pricing, and security traceability are not yet well established, the scale of on-exchange transactions is limited, and a large volume of data circulates through off-exchange transactions, giving rise to potential property rights disputes and security risks. Third, regional barriers are prominent. Out of concerns over data security and local interests, local governments impose implicit restrictions on the cross-regional flow of data, hindering the nationwide optimal allocation of data as a factor of production. At the same time, the flow of talent and technology factors remains constrained by institutional mechanisms. The system allowing scientific and technological personnel in universities and research institutes to hold concurrent positions is not well developed, and the mobility of talent among industry, academia, and research institutions is obstructed by staffing and professional title barriers. In technology factor transactions, difficulties in intellectual property evaluation and the high cost of rights protection persist, constraining the efficiency with which technological achievements are transformed into real productive forces.

4.3. The "discrepancy between contributions and benefits" coexists with the "insufficient sharing mechanism"

With the trend of "physical labor transforming into intellectual labor and innovative labor" under the new quality productive forces, the distribution system has gradually broken through the limitations of the traditional "distribution based on labor quantity", and has evolved towards a coordinated development of labor-based distribution and factor-based distribution. On one hand, new distribution methods such as technology equity investment, management options, and data income sharing are widely applied in technology-based enterprises, such as Huawei's "Genius Youth" program and the equity incentive for enterprises on the Shanghai Stock Exchange's Science and Technology Innovation Board, which reflect the recognition of the intellectual labor value of high-end innovative talents; on the other hand, the intensity of redistribution regulation has gradually increased. For flexible employment groups in the digital economy field (such as ride-hailing drivers and live-streaming practitioners), many regions have explored new insurance participation models of "platform + social security", integrating them into the social security system, initially achieving the partial sharing of the innovative development achievements, demonstrating the essential attribute of "common prosperity" of the socialist production relations.

Although the reform of the distribution system has made significant progress, new distribution methods and redistribution regulation mechanisms have begun to show results in some fields and for certain groups, yet there is still a considerable gap from the systematic distribution pattern that is compatible with the development requirements of new productive forces. Currently, there is still a structural mismatch between the "contribution" and "reward" of new factor value creation, and the institutional shortcomings in the initial distribution and redistribution processes compound each other, restricting the fair sharing of innovation achievements. Specifically, this is manifested in the following aspects.

In primary distribution, the mechanism for realizing the value of new factors remains incomplete. There are no clear rules governing the distribution of returns to contributors of data as a factor of production. In the enormous profits generated by platform enterprises through the use of user data, users, as data producers, find it difficult to obtain reasonable returns. The value of the innovative labor of scientific researchers is not fully reflected. In some state-owned enterprises and universities, the distribution of returns from the transformation

of scientific and technological achievements is constrained by administrative hierarchies, and the intensity of incentives for R&D teams does not match their innovative contributions, thereby suppressing the intrinsic motivation of innovation entities.

In the process of redistribution, the regulatory mechanism lags behind the development of new productive forces: there are loopholes in tax collection and management in the digital economy sector, and it is difficult to supervise the tax sources of platform enterprises and virtual economy practitioners. Some high-income groups pay insufficient taxes. The social security system fails to cover new forms of employment adequately. The innovative practitioners of flexible employment face problems such as high enrollment thresholds and difficulties in transfer and continuation in terms of old-age insurance and medical insurance, making it difficult for them to fully share the fruits of innovation and development.

Furthermore, the mechanism for using redistribution measures to guide social public resources is not yet fully developed. The tax incentives for charitable donations related to technological innovation are insufficient, and the enthusiasm of enterprises and individuals in sharing innovation outcomes has not been fully stimulated.

5. Path Selection for Constructing a New Type of Production Relations

Constructing a new type of production relationship that is compatible with new productive forces is a systematic project, requiring identifying key focuses and implementation paths. Based on the detailed analysis of the connotation, dialectical relationship, and current development status of the new production relationship in the previous text, it is proposed to clarify the important focuses for constructing the new production relationship from aspects such as the organizational mode, driving mechanism, core tasks, and balance principles, thereby providing theoretical guidance for promoting high-quality development.

5.1. Promote the reform of organizational methods for scientific and technological innovation, and break through the bottlenecks in the system

To reform the organizational methods of scientific and technological innovation and remove the bottlenecks in the system, we must focus on addressing key issues such as the disconnection between talent cultivation and innovation demands, and the lack of smooth coordination among strategic forces, so as to form a new type of production relationship that is more compatible with the new quality productive forces.

We should focus on establishing an innovative talent cultivation system that is "task-driven and practical training-oriented". Embed the deep cultivation of talents into major national scientific and technological tasks and the construction of innovation platforms. Rely on major projects, key laboratories and innovation consortia to establish joint graduate training bases, and implement the dual-tutor system combining academic mentors with industrial mentors. Let young scientific and technological talents grow their abilities through real research and practical combat. At the same time, open up the channels for talent mobility between universities, research institutes and enterprises, and implement flexible employment models such as talent allocation pools, dual-appointment between universities and enterprises, and talent stations. Enable top-notch talents to both deeply engage in basic research at universities and solve industrial problems at enterprises. We also need to establish mechanisms for discovering, selecting and stabilizing support for young scientific and technological talents. Set up special projects for young scientists in major tasks, give young talents the opportunity to take the lead and play the main role, and resolutely break the anxiety of "ranking-based selection" and "short-term achievements". Truly create a system environment that does not restrict the selection of talents in an arbitrary way.

We should leverage the institutional advantages of the new national system. We should fully utilize the institutional advantage of socialism in concentrating resources to accomplish major tasks. In major scientific and technological research efforts, we should establish an organizational system with unified command, efficient mobilization, and coordinated collaboration. We should establish a task generation mechanism where industries propose the questions, the state formulates the solutions, and collaborative research is carried out. The research and development goals should be directly proposed by the strategic demand side and the industrial application side, completely breaking the previous situation where each party acted independently and carried out fragmented research. We should support leading technology enterprises to take the lead in establishing substantive innovation consortia for operation, forming a matrix-style research and development pattern where enterprises propose the questions, research institutions answer the questions, and upstream and downstream collaborate. We should integrate laboratory systems and research forces across departments and regions, and implement unified scheduling of human resources, equipment, and data in major tasks. We should truly achieve the overall resource allocation of a national chessboard, and through the improvement of working mechanisms such as central-local linkage, military-industrial coordination, and deep integration of industry-university-research, we should effectively transform the institutional advantages and organizational advantages into the overall efficacy of scientific and technological innovation.

5.2. Deepen institutional and mechanism reforms, and optimize the innovation ecosystem

In the "Preface to the Critique of Political Economy", Marx emphasized, "When the social productive forces reach a certain stage, they will inevitably come into conflict with the existing production relations or property relations (these are merely the legal terms for production relations). These relations then transform from being the constraints on the development of productive forces into the fetters of productive forces. At that time, the era of social revolution has arrived [11]." Under the socialist system, this "revolution" is more often manifested as institutional reforms. Deepening institutional reforms to optimize and innovate the ecological environment is achieved by eliminating the links in production relations that are incompatible with the new quality of productive forces, and constructing a "system environment where innovation factors can flow freely and innovation vitality can fully burst forth".

The core of establishing a sound mechanism for stimulating scientific and technological innovation lies in achieving a direct connection between "innovative labor and benefit distribution". This is in line with the extension of the Marxist principle of "distribution according to work" in the field of innovation. In the traditional scientific and technological system, the orientation of "emphasizing papers over applications" and "emphasizing investment over output" has led to the fact that the innovative labor of researchers (especially the creative labor during the stage of application transformation) is difficult to be reflected in the distribution, resulting in the contradiction of "high innovation investment but low conversion efficiency". By improving the "direct connection channel" system for scientific and technological transformation, such as granting research institutions greater rights to handle results, allowing research teams to obtain a higher proportion of the income from application transformation, and incorporating the performance of application transformation into the standards for professional title evaluation, essentially is to incorporate "the value of innovative labor" into the distribution system, enabling researchers to shift from "innovating for papers" to "innovating for value". This adjustment of the incentive mechanism directly targets the pain point in the production relationship where "the distribution link does not match the innovative labor", and can effectively stimulate the internal driving force of innovation entities.

Reforming the market-oriented allocation system for factors of production requires, above all, breaking down the institutional barriers to factor mobility. The development of new quality productive forces depends on the cross-domain aggregation of new factors such as knowledge, technology, and data. However, problems including the urban-rural dual structure, industry monopolies, and regional administrative segmentation have made the cost of factor mobility excessively high across different regions, industries, and entities. For example, data factors are difficult to share across regions due to local protectionism, and technical talent faces obstacles in agglomerating in innovation hubs because of household registration restrictions. These barriers can be dismantled through the market-oriented allocation reform of factors of production. In the field of talent, reforms of the household registration system and market-based talent evaluation should be advanced to allow talent to flow freely according to market demand. In the field of technology, trading platforms for technology factors should be established to standardize the transaction procedures for technology property rights. In the field of data, negative-list management for the cross-regional circulation of data factors should be explored. These measures will enable factors to concentrate in areas with strong innovation vitality and high output efficiency, thereby transforming factor allocation efficiency into development momentum for new quality productive forces.

To establish a collaborative governance system, it is necessary to grasp the boundary between "an effective market" and "an active government". The development of new quality productive forces requires that the market should play a "decisive role" in the allocation of resources - that is, allowing the selection of technical routes, the allocation of innovation resources, and the iteration of products and services to be guided by market signals, avoiding excessive government intervention in microeconomic activities. At the same time, the government needs to play an "active role" in areas where the market fails - that is, providing long-term and stable investment in basic research (such as quantum mechanics, gene editing, etc., the "from 0 to 1" fields), building public platforms in standard setting (such as artificial intelligence ethical norms, data security standards), strengthening law enforcement in intellectual property protection, and making up for the market's deficiencies in "public goods supply and risk prevention" and other aspects. This "market-led resource allocation, government guarantee of the innovation environment" collaborative model can form a "1 + 1 > 2" governance efficiency, providing a stable operating framework for new production relations.

5.3. Promote innovation in the distribution system, balancing fairness and efficiency

The distribution relationship is an important component of the production relationship. In "Critique of the Gotha Program", Marx pointed out that "any distribution of consumption materials is merely the result of the distribution of production conditions; and the distribution of production conditions reflects the nature of the production mode itself [12]." Promoting the innovation of distribution systems to balance fairness and efficiency is based on the new quality productive forces' "innovation-driven" production mode. It constructs an allocation system that is "in line with the contribution of factors and coordinated with social fairness", providing sustainable social support for the new production relationship.

To establish an allocation system that is "dominated by distribution based on labor, with multiple forms of distribution coexisting", it is necessary to achieve a unified allocation model that integrates distribution based on labor with distribution based on factors. This is a rich development of Marxist distribution theory. Under the new quality productive forces, the form of labor has shifted from "dominated by physical labor" to "dominated by intellectual labor and innovative labor", and new factors such as technology, management, and data have significantly enhanced their contribution to production - for instance, the innovative labor of artificial intelligence algorithm engineers can directly improve production efficiency, and the optimized

application of data factors can create new value increments. Therefore, the innovation of the distribution system should not only "ensure the basic rights of workers" -- that is, by improving minimum wage standards, overtime pay systems, and social security systems, to ensure that ordinary workers receive reasonable returns in the process of innovation and development, and reflect the dominant position of "distribution based on labor"; but also "allow new factors to participate in distribution according to their contributions" - that is, through technology equity, data income sharing, management options, etc., to enable factor owners to obtain income based on their factor contributions (such as the technical equity dividends of R&D personnel in technology enterprises, and the benefit sharing of data contributors in platform enterprises). This "cooperative participation of labor and factors" allocation model avoids "only emphasizing labor and ignoring factor contributions" leading to insufficient innovation motivation, and also prevents "only emphasizing factors and ignoring labor rights" causing distribution imbalance, thereby meeting the dual demands of "efficiency and fairness" for the development of new quality productive forces.

The core of improving the redistribution regulation mechanism lies in achieving "the sharing of innovation achievements", which is an embodiment of the essence of socialist production relations - "common prosperity". The development of new quality productive forces can create a large amount of social wealth, but without redistribution regulation, it may lead to the concentration of wealth among a few innovation entities -- such as enterprises or individuals with core technologies obtaining excessive profits, while ordinary workers have difficulty sharing the innovation achievements. This will trigger social conflicts, which in turn will restrict the sustainable development of the new production relations. Through "re-distribution regulation" to narrow the income gap: In the field of taxation, implement a "graded tax policy" for the income from innovation achievements transformation (ensuring the reasonable income of innovation entities while regulating excessive income through progressive taxation), and explore a "special regulation mechanism" for data element income; In the field of social security, incorporate innovative practitioners in flexible employment into the social security system, and ensure their basic rights through "social security transfer and continuation reform"; In the field of public services, allocate more of the fiscal revenue brought by innovation to public services such as education and healthcare to enhance the overall social welfare level. These measures can shift the benefits of innovation achievements from "benefiting a few people" to "shared by the entire society", achieving the organic unity of "innovation-driven development" and "common prosperity", and laying a solid social recognition foundation for the new production relations.

6. Conclusion

This paper takes the fundamental principle of historical materialism -- the dialectical relationship between productive forces and relations of production -- as its theoretical framework, systematically exploring the theoretical connotations, emergence logic, and construction pathways of new forms of relations of production. The study shows that these new relations are not a priori institutional designs but an inevitable requirement arising when high-quality productive forces reach a certain stage. At their core, they represent a systematic transformation of ownership structures, production organization, and distribution mechanisms. Currently, China has made positive progress in building such new relations, having initially established an institutional framework aligned with the development of high-quality productive forces through coordinated efforts among multiple stakeholders, efficient allocation of new factors, and innovations in distribution systems. However, structural contradictions remain, including institutional inertia in scientific and technological innovation organization, systemic bottlenecks in the circulation of new production factors, and

mismatches between contributions and returns. The root cause of these issues lies in the inherent lag in adjusting relations of production, while productive forces continue to evolve dynamically. This gap between the two constitutes the fundamental driving force behind the formation of new relations of production. Therefore, this paper advocates advancing reforms in the organization of scientific and technological innovation to remove institutional barriers, deepening institutional and mechanistic reforms to optimize the innovation ecosystem, and promoting innovations in distribution systems to balance fairness and efficiency—thereby establishing new relations of production suited to high-quality productive forces. This research path demonstrates that historical materialism is not a closed dogma but a scientific theory capable of continuously expanding its meaning in response to contemporary challenges. The construction of new relations of production represents a conscious application of the laws governing the contradictory movement between productive forces and relations of production under new historical conditions. Looking ahead, as the ongoing wave of technological revolution and industrial transformation advances, new production factors such as data, computing power, and algorithms will continue reshaping production methods and industrial landscapes. The connotations and pathways for constructing new relations of production will likewise be enriched and refined through practice. This is both an essential requirement for comprehensive deepening reform and an integral part of steadily advancing Chinese modernization.

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