

The economic analysis of the evolution of public ownership

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Abstract. For the issue of public ownership has been the focus of academic debate, through the German industrial 4.0 concepts lead to "China's industrial 2025 plan", on the basis of property rights theory, this paper combines with the basic concept of public ownership combed the realization form of public ownership, the evolution in China, and discusses the realization form of socialist public ownership with Chinese characteristics.

1 Industry 4.0 Background

Marx and Engels pointed out that: "a nation's productivity development level, the most obvious manifestation in the nation's division of labor development degree. Any new productivity which is not merely an expansion of existing production (for example, the reclamation of new land) will lead to a further development of the division of Labour." [1] The first three industrial revolutions, in which the productive forces were rapidly improved, made a qualitative leap in the life, culture and economy of all mankind. Human society has been judged by historians for about 180,000 years. In the long course of human history, with the progress of society, the emergence and use of human development tools are particularly critical. Although historians that human society has a history of 180000 years, but the real into the high-speed development of economy should be from the emergence of the steam engine, machine big industry instead of handicraft factory, steam power is widely used, and in the manufacture of economic centralization, scale, and the machine to become a reality, Lin Yanzhi use "industrial NO." (2017), as a model to distinguish the different stages of industrialization, "1.0" industrial is 1762 watt steam engine was developed, opened up the road of industrialization." Industry 2.0" continues to subdivide jobs and increase worker productivity through electricity-driven mass production and the emergence of assembly lines. "Industry 3.0" pushed industry toward automation with the advent of information technology. "Industry 4.0" is the overall strategy of the German government for the development of industrial economy. It hopes to meet the respective goals of producers and consumers and reduce the participation of the number of people through the Internet of Things, big data, mobile terminals and other scientific and technological means and with intelligence as the means. Every time humans use more advanced tools,

there will be a change in labor force, that is, a change in productivity, and the corresponding relations of production will also move accordingly, but there will be a reaction time between the two that will not be effective immediately, so it buys us time and space for discussion in theoretical research.

2 The theory basis

2.1 Property right theory

Alchin believed that property rights were a means of conferring authority upon an individual, and by using that authority, one could choose any particular use of an object from the unprohibited. [1] According to North, property right is the right of individuals to possess the labor, goods and services they own; Possession is a function of legal rules, organizational forms, enforcement and codes of conduct. [2] Anfield co-authored by flat to dick and rubin "microeconomics" the property is defined as "to describe people or companies can do something for their property legal rules" fe Lv Boteng believes that "the property right not the relationship of the people, but to have a physical existence and about their mutual recognition between people caused by the use of the behavior of the relationship." [3][4] Bazel points out that "people's rights to assets are not permanent; they are a function of their own direct efforts to protect them, of others' attempts to seize them, and of the extent to which the government protects them." [5] When transaction costs are positive, property rights cannot be completely defined, but only relatively and gradually defined. Among all these concepts of property rights, the legal form is of decisive significance. Property rights are first of all a concept of legal rights, which is created by the legislator who is above the society, and the legal relations determine the economic relations. [6] Property right is actually a contractual relationship, which is a combination of rights such as right

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of use, right of usufruct and right of transfer, or a structure of a variety of rights.[7]Property right is separated from property ownership, including a series of bundle of rights such as the use of property, revenue sharing and disposal, and the ultimate embodiment of property right is the ownership of the product.[8]

2.2 Contract Theory

According to contract theory, there are complete contracts and incomplete contracts. In standard neoclassical theory, it is generally assumed that the creation and execution of a complete contract is of zero cost. Complete contract comes from complete rationality and complete information. It is a value that clearly describes the actions that should be taken by all parties in every possible situation, and provides the distribution of known benefits and costs. It is assumed that the distribution can be concluded as a contract that depends on the states of all parties, and a complete contract is a stable contract. In the incomplete contract theory, information is asymmetric and there is limited rationality, and the meaningful states for the parties cannot be verified or predicted. If all of them are written into the contract, huge costs will be incurred. Therefore, it is impossible to conclude the contract with the characteristics of state dependence in advance. Incomplete contracts are subject to great instability. Therefore, incomplete contract is an important part of new institutional economics, transaction cost economics and property right economics. In the world of a positive transaction cost, contract and institutional arrangements are high cost and not perfect, the real deal, not all contracts can realize the potential benefits of new classical economics think, and a part of the potential benefits are meant to be consumed as transaction costs, the key lies in how to reduce the transaction cost of potential benefits of dissipation. Generally speaking, incomplete contract theory is analyzed from three squares: property rights, transaction costs and self-enforcing implicit contracts. No matter from which aspect they are analyzed, contracts are always associated with opportunistic behaviors such as moral hazard, because the opportunistic behaviors of some traders seriously affect the profits and costs of others. As their actions are difficult to be supervised and verified or supervised by a third party, the contract reached between the parties to the transaction can only be incomplete contract.

When the incomplete contract theory is introduced into the study of public ownership, property owners and operators are maintained by contractual relationship, but for owners, they are at a disadvantage, namely the state of incomplete information. If they want to get rid of this situation, they need to turn part of the income into transaction cost to obtain information.

3 The practical form, meaning and development course of public ownership

3.1 Practical form and meaning of public ownership

In China's economy and in the early stages of economic development for a long time, talked about on the 14th National Congress of the Communist Party of China "to the public ownership as the main body, a variety of economic elements common development", this is the first time the party on the successive congress when it comes to forms for realizing public ownership, is not just in the state, the collective is given priority to, can also develop various forms part of the anyway. The academia's definition of the realization form of public ownership can be understood from the following three viewpoints. The first point of view, from the public sector of the transverse structure understanding, namely the ultimate ownership of means of production are owned by the state and the collective, the realization form of state-owned economy and collective economy, such as flight af129 (2001),"forms for realizing public ownership is the means of production by the joint possession, all members of society to realize" by state ownership and collective ownership;[11]The second view, understood from the vertical structure of public ownership, considers the characteristics of four aspects: the ownership of the means of production, the investors of the means of production, the way of property organization adopted by the investors and the composition of the form of enterprise organization. For example, Hong Hu believes that "establishing the system of investors of state-owned assets, clarifying the status of investors of the government, and representing the government through the organization of decision-making meetings...,the most typical of the two types of joint-stock system and joint-stock cooperative system.[12]The third view is that the form of public ownership is the form of owner's holding of the enterprise. Yang Yonghua said, the so-called form of public ownership is the organizational form of capital, all the capital combinations of different economic entities constitute an independent accounting, responsible for the profits and losses of the legal entity's capital organizational form.[13]Zhang Yanxi believes that in modern economic life, the elements that can be used as resources or assets into the production and management process are increasing day by day, thus the number of social and economic subjects with the right to possess resources or factors is also increasing accordingly. The investment fund that by the consumptive fund of laborer, social insurance fund or emeritus fund and constitutes, it is the fund of a kind of public sex this kind of investment fund can become social capital, undertake production is managed. The mixed economic form formed by social capital holding is undoubtedly a form of public ownership, which will develop continuously with the improvement of investment funds and may become the market subject of the future society.[14] Personally, I prefer the third view. With the development of productivity, the external manifestation of public ownership will also change with the production relations, and more public resources or property will be connected with enterprises, further explaining the realization form of socialist public ownership with Chinese characteristics.

3.2 The development process of China's public ownership

At first, Marx imagined that socialist public ownership was based on social ownership, and he wanted to eliminate private ownership to realize that the means of production would be owned, used, possessed and dominated by the working class, with the development of productive forces as the prerequisite. However, it was really difficult to make social changes in countries with backward productive forces at that time. So Lenin, Stalin design forms for realizing public ownership is "owned by the whole people" and "collective" ownership, Stalin is discussed in the article, in the socialist society there are two basic forms: "is a kind of state is the form, one can't be called a form of collective farms form".[15]From the period of "great unification" and the early stage of reform and opening up, China has been using the former Soviet Union's form of public ownership, namely state ownership and rural people's communes. After the third Plenary Session of the 11th CPC Central Committee, the CPC Central Committee issued no.75 document in September 1980, which affirmed the "annual household contract responsibility system". At this time, farmers in the collective economy had the right to make their own decisions, and the incentive mechanism also made them full of hope for the future. After the people's commune was dissolved in the countryside in 1983,the annual household contract responsibility system became the main mode of operation. It has the advantage of separating the ownership and use rights of the land, and the peasants have the right to use the land to obtain their own benefits. However, it also has its own disadvantages. Therefore, some professional households, key households began to carry out joint production to form a consortium. In 1988, the Party Central Committee and the State Council put forward the "moderate scale economy". Due to the uneven development of productive forces and the low level of productive forces in some areas, China's rural areas have found a suitable way in terms of operation and management. Only when the productive forces are matched with the relations of production can the economy achieve steady growth.

Table1. Number and proportion of employment in the formal and informal economy in China from 1978 to 2017 (unit: 10,000)

year	employment in the formal and informal economy					
	Total employment	Formal economy + collective employment	The proportion of employment	The number of urban informal economy employment	Number of rural informal economy employees	The proportion of informal employment
1978	40152	40137	99.96%	15	/	0.04%
1990	64749	14057	21.71%	2984	47708	78.29%
2000	72085	11585	16.07%	11566	48934	83.93%
2008	75564	11972	15.84%	20131	43461	84.16%
2017	77640	17355	22.35%	25107	35178	77.65%

Source: National Bureau of Statistics (Ed.): China Statistical Yearbook 2018, Beijing: China Statistics Press,2018, Table 4-2, Table 4-3

As shown in table 1,employment in the informal economy since 1978 about eighty percent of total employment in, informal economy employment consists of two parts, one is employment in urban informal economy,2 it is rural employment, informal economy through statistical data changes can be seen that urban

4 Reflection on the New Realization Form of Public ownership in China

4.1 Socialist public ownership with Chinese characteristics with "laborers as the center"

Marx stated in Das Kapital that "the laborer's private right to his means of production is the basis of small-scale production,which is the necessary condition for the development of social production and the laborer's free personality.But have differences,about definition of laborer lubman,Stanley from the scope of "workers" is equivalent to most of the working people began to explain,and the "labor law" the understanding for law for most working people,the classic analysis of the marxist view,in China within the scope of this division is not scientific,because from 1978 to 2017,as shown in table 1 formal economy + collective employment to total employment growth fell to 16.8% from 99.96%,the lowest,in 2011 began to rebound,but nearly six years always hover around 22% or so,According to statistical indicators over the years,nearly 80 percent of the employed population in China are regular personnel who do not enjoy the protection of the national labor laws and social security system."The working people are mainly made up of 900 million 'semi-working and semi-farming' families with rural household registration.They are neither non-traditional 'workers' nor 'simply' farmers' in the traditional sense,but rural registered people who are both workers and farmers.They are the real working people of China."So only when the working people who are "half workers and half peasants" occupy the means of production,is the social public ownership in the true sense.Professor Huang Zongzhi's definition of formal economy includes state-owned units,collective units, joint stock cooperative units,joint venture units,limited liability companies,joint stock limited companies,investment units of Hong Kong,Macao and Taiwan businessmen and foreign investment units,while informal economy consists of urban private enterprises,individual enterprises and rural workers.

informal employment growth rate faster, and the urban informal economy employment including urban private enterprises and urban individual economy, there are important is unregistered economy employment as shown in table 2,the increasing proportion of informal economy employment also fully demonstrates the necessity of

defining workers. When all laborers are employed in the formal economy and informal employment, they possess

and use the means of production, it is the public ownership under the socialized mass production.

Table2. The number of informal economy employees in Chinese cities and towns over the years (unit: 10,000)

year	employment in the formal and informal economy							
	The private enterprise	individual	unregistered	Informal economy employment number	The proportion of employed people in urban areas	Number of people employed in the formal economy	The proportion of employed people in urban areas	Number of urban employees
1978	/	15	/	15	0.2%	9499	99%	9514
1990	57	614	2313	2984	17%	14057	82%	17041
2000	1268	2136	8162	11566	49%	11585	50%	23151
2008	5124	3609	11398	20131	62%	11972	37%	32103
2017	13327	9348	2432	25107	59%	17355	40%	42462

Source: National Bureau of Statistics (Ed.): China Statistical Yearbook 2018, Beijing: China Statistics Press, 2018, Table 4-2, Table 4-3

4.2 Mixed ownership of socialism with Chinese characteristics

4.2.1 Reform of State-Owned enterprises

Although Marx did not clearly put forward the specific meaning of the realization of public ownership, he supported the realization of private ownership in a variety of cases, among which the case of "landowners" was one. The farmer has a small amount of money funds at the start-up stage, but the lack of land and other production data, through the form of lease, the land is leased, labor is to buy, but the surplus value is the farmer, the farmer in the whole process to obtain the right to use the means of production and the ownership is still owned by lenders or monetary capitalists, it is the typical case of small-scale production. When productivity level gradually improve, the evolution of small-scale production to mass production, at this time required to produce the means of production to a person or several people lease is obviously not enough, should jointly by the vast majority of currency owner loan, functions of the capitalists get management rights, and money lenders just interest, which is a process from private capital into social capital. The same can be done when the process is transplanted to China. I introduced the modern enterprise system in the reform of state-owned enterprises, which was realized through shareholding system and mixed ownership. With the gravity of state-owned capital in the society of folk capital, foreign capital and the worker's disposable currency funds used in social production, can be wholly state-owned companies, listed companies, sino-foreign joint venture mixed sector of the economy, the joint stock cooperative system enterprises and private enterprises and other forms of public ownership in the service of economic construction in our country.

By the former in this paper, we explain to the public sector of the partition in the form of business organization, there are three kinds of type company co., LTD., limited liability companies and joint stock cooperative company, the listed company is included in the co., LTD., as the company law of the People's Republic of China the provisions of article one hundred and twenty of the "listed company" as mentioned in this law refers to the shares listed on the stock exchange trading co., LTD. ".First clear

concept of a listed company is public ownership enterprises, we can through the scope of the private economy to determine the scope of the listed company, professor li yining said, "really belongs to the private economy, but those were not ready for a joint stock system reform, still hold all the businesses and individuals, families or family partnership." [16] But this also can explain listed company is not private economy only, cannot be affirmed as one of public ownership realization forms. Under the public ownership, an important characteristic is the "separation of two rights". The ownership of listed companies belongs to private owners, but the public ownership is shown in the operation links, such as profits Shared by all shareholders, joint decision-making, risk sharing, property indivisible and inviolable, accuracy and timeliness of information disclosure. In 2018, standard & Poor's "Handbook of Global Stock Market" announced that there were 3,584 listed companies, and the National Bureau of Statistics announced that there were 151,259 joint stock limited companies. The listed companies only accounted for 2.3% of the shares of joint stock limited companies. Is there any value to be studied for the realization of listed companies as public ownership? In March 2016, the State Council authorized the reform of the registration system. In 2018, the Shanghai Stock Exchange set up the Innovation Board and began to pilot the registration system. This shows that the stock issuance registration system is an inevitable trend. The registration system is essentially a financial disclosure system, which advocates that issuing companies provide all information related to stock issuance. Under the registration system, stock limited companies can be listed and traded as long as they reach the listing conditions, so the number of listed companies will rise substantially, which shows the significance of listed companies as a form of public ownership.

5 CONCLUSION

The attribution of means of production is an important aspect of property rights theory research. This paper redefines the formal economy and informal economy as well as the socialist public ownership with Chinese characteristics according to the actual situation in China, so as to improve the support for the extension of property rights theory.

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