

Deepening in Division of Labor: An Analysis of Five Great Social Divisions of Labor and Intra-sector Division of Labor

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Abstract: Based on a review of the academically acknowledged three great social divisions of labor, this paper defines the standards to delimit social division of labor and interprets the realistic logic of the fourth and the fifth great social divisions of labor marked by appearance of the cultural sector and the information sector respectively. In accordance with the relationship between the divisions of labor in general and in particular, this paper determines basic signs of divisions of labor in particular in agricultural, industrial, commercial, cultural and information sectors as the appearance of the plantation-centered mode of agricultural production, of the modern industry-centered mode of industrial production, of the culture-centered cultural industry, of the banking-centered financial system, and of the information services-centered information industry.

Keywords: Five Great Social Divisions of Labor, division of labor in general, division of labor in Particular, Theory of Political Economy on Division of Labor

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Social division of labor is the outgrowth of human production and exchanges. In the view of the materialist conception of history, human beings must first have food, water, shelter and other necessities for survival and life, and therefore they need to work and keep developing the productive forces. The labor gradually divides, which has not only further promoted the development of productive

forces, but also given rise to ownership changes, class antagonism, urban and rural confrontation, social differentiation and inequality. Social division of labor takes different forms in different stages of social and historical development, and the concrete forms of social division of labor are not coincident with each other in different countries and ethnic groups for different factors such as the development of science and technology, natural conditions, among others, thus showing a diversity of civilization.

Social division of labor is an everlastingly new topic along with the human economic and social development. Based on the dialectical method of historicism, this paper briefly presents the basic connotation and origin of social division of labor, reviews the academically acknowledged three social divisions of labor, analyzes the basic standards to delimit social divisions of labor, and interprets the realistic logic of the fourth and the fifth great social divisions of labor marked by appearance of the cultural sector and the information sector respectively. In the meantime, the paper determines basic signs for divisions of labor in particular in major sectors and summarizes the basic historical and evolutionary law of social division of labor so as to acquire enlightenment.

I. Historical Evolution of Social Division of Labor: Taking Division of Labor in General as an Example

In the last resort, division of labor is the relationship between the individual labor and the aggregate social labor. “Division of labor is, in one sense, nothing but co-existing labor, that is, the co-existence of different kinds of labor which are represented in different kinds of produce or rather commodities.¹” Therefore, we can summarize the basic connotation of social division of labor from two aspects: laborer and different labor sectors producing the products. Laborers conduct different types of labor activities, while social production sectors are divided into various independent and interrelated sub-sectors. This is the interpretation of

¹ *Completed Works of Marx and Engels, Volume 26 (III)* (Beijing: People’s Publishing House, 1974), 295 -296.

social division of labor in a sense of totality. Social division of labor is the outgrowth of the productive forces of human society which develop to a certain extent. The division of labor between men and women and the geographical division of labor without commodity exchange are called natural division of labor because the division is based on purely natural factors rather than the nature of labor¹. It is in the process of natural division of labor that laborers can concentrate more energy than ever before on a few kinds of labor affairs, and thus to some degree improve labor skills and increase labor surplus. With the development of natural division of labor and the progress of social productive forces, the surplus products gradually increase, leading to exchange among the people, and finally to the genesis of social division of labor based on commodity exchange.

1. Three Great Social Divisions of Labor in Human History

The present statement of the academically acknowledged three great social divisions of labor in human society stems from Engels's classical expression in *The Origin of the Family, Private Property and the State*². The first great social division of labor was marked by separation of pastoral tribes from the mass of the rest of the barbarians, the second by separation of handicraft from agriculture, and the third by the formation of a class of merchants who did nothing but product exchange.

Before the first great social division of labor took place, mankind basically led a nomadic life, mainly relying their subsistence on hunting, fishing and gathering, which almost exhausted men's major energies with few labor surplus left. "Pastoralism, or more generally a nomadic way of life, is the first form of existence"³. Afterwards, people gradually learned to domesticate livestock. Taming and breeding livestock formed large-scale herds, and eventually "pastoral

1 See Liu Youcheng, *Theory of Social Division of Labor* (Hangzhou: Zhejiang People's Publishing House, 1985), 42-44.

2 See *Selected Works of Marx and Engels, Volume 4* (Beijing: People's Publishing House, 2009), 13-198.

3 *Selected Works of Marx and Engels, Volume 8* (Beijing: People's Publishing House, 2009), 123.

tribes separated themselves from the mass of the rest of the barbarians: the first great social division of labor”¹. Pastoral tribes produced more means of subsistence, making it possible to frequently exchange products. Later, the invention of the farming-centered mode of agricultural production settled mankind down from a nomadic way of life. “Agriculture is the first form of production in all more or less established societies”². With the settlement of human life, there appeared a public appropriation system of land and other natural resources by the primitive community, i.e., the primitive communal ownership.

The stage of the first great social division of labor witnessed industrial achievements such as the loom, the smelting of metal ores and the working of metals³. In particular, the use of bronze and iron, the important raw materials, expanded the objects of labor, diversified tools of handicraft workers, and promoted the production of social wealth. With the increasing diversification of production activities and the gradual improvement of production technology, the number of people engaged in handicraft was continuously growing, and thus “the second great division of labor took place: handicraft separated from agriculture”⁴.

After the separation of handicraft from agriculture, product exchange among producers became necessary for social life. The frequent product exchange eventually called into existence a special class of merchants who did no production but commerce, which marked the third great social division of labor. In other words, “the next extension of the division of labor was the separation of production and commerce, the formation of a special class of merchants”⁵.

The three great social divisions of labor mentioned above can be called the division of labor in general, but “if we keep labor alone in view, we may designate

1 *Selected Works of Marx and Engels, Volume 4* (Beijing: People’s Publishing House, 2009), 179.

2 *Selected Works of Marx and Engels, Volume 46 (I)* (Beijing: People’s Publishing House, 1979), 44.

3 *Selected Works of Marx and Engels, Volume 4* (Beijing: People’s Publishing House, 2009), 180.

4 *Selected Works of Marx and Engels, Volume 4* (Beijing: People’s Publishing House, 2009), 182.

5 *Selected Works of Marx and Engels, Volume 1* (Beijing: People’s Publishing House, 2009), 559.

the separation of social production into its main divisions or genera — viz., agriculture, industries, &c., as division of labor in general, and the splitting up of these families into species and sub-species, as division of labor in particular”¹. That is to say, after the emergence of agriculture, industry, commerce and other sectors, the division of labor still exists inside each sector, which was called division of labor in particular.

Apart from the acknowledged three great social divisions of labor mentioned above, some scholars regarded the emergence of the science sector² or the service industry as the fourth great social division of labor³. Then, how to scientifically and objectively understand the development process of the social division of labor after the three great social divisions of labor? Can the basic marker of division of labor in particular in each sector be presented and determined as in the analysis of division of labor in general? The key to these questions firstly requires a clear standard to delimit social division of labor.

2. Define the Standard to Delimit Social Division of Labor

First of all, “division of labor, the level of which depends on the development of the productive power at any particular time”⁴. The productive power is “the ability of people to create social substance and spiritual asset by the means of production”⁵. Such being the case, science and technology, natural conditions, labor division and cooperation, production organization and management, among

1 *Selected Works of Marx and Engels, Volume 5* (Beijing: People’s Publishing House, 2009), 406.

2 See Chen Ping, *Civilization Divergence, Economic Chaos and Evolutionary Economic Dynamics* (Beijing: Peking University Press, 2004), 40.

3 See Li Zui, “On Division of Labor in Society, in Firms and in Firm Nets,” *Contemporary Economic Research*, No. 2 (2005); Qian Shufa, et al., *Labor Evolution, Organizational Innovation and Economic Progress: Research on Marx’s Social Labor Division System* (Beijing: Economic Science Press, 2013), 109.

4 *Selected Works of Marx and Engels, Volume 1* (Beijing: People’s Publishing House, 2009), 587.

5 Cheng Enfu, Feng Jinhua & Ma Yan, *Modern Political Economics* (Shanghai: Shanghai University of Finance and Economics Press, 2012), 6.

others, can all be regarded as the constituent elements of the productive power¹. Undoubtedly, the root cause of social division of labor is the development of productive forces. The form of productive forces determines the structure of social division of labor, while the social division of labor, in turn, exerts an influence on the development of productive forces.

The development of productive forces gave rise to social division of labor, of which the evolution law obviously needs to seek reason from the productive forces. “The drive of evolution of labor division comes from the development of new material resources resulting from scientific and technological inventions, the rising and falling size of new and old markets, and the swings of structural transformation under external impact.”²

First, the invention of new instruments and technology of production can improve labor productivity and increase relative surplus labor on the one hand, and lead to development and utilization of new material resources, expand objects of labor, and originate new laboring contents and forms on the other hand. For example, after separated from the animal kingdom, men could acquire excess livestock for an important reason that they learned to make bows and used them for hunting; the separation of handicraft from agriculture was closely related to extensive use of iron instruments; the smelting of iron and steel and the use of coal and petroleum in the industrial age realized laying of railways and voyage of ships, greatly improved transport capacity, expanded the market space, and activated production and commerce of commodities.

1 It is academically controversial whether the productive forces consist of two elements, three elements, or multiple elements. The author is in favor of the three-element ontology of productive forces and the theory of multiple-factor system, both of which hold that elements of productive forces include not only the three essential substantive elements of laborers, subject of labor and means of labor, but also science and technology, management, education and other infiltrative and organizational elements.

2 Chen Ping, preface to the third edition of *Civilization Divergence, Economic Chaos and Evolutionary Economic Dynamics* (Beijing: Peking University Press, 2004), 2. Note: what is mentioned here is division of labor, and social division of labor includes both division of labor and division of labor among laborers. However, social division of labor is basically consistent with division of labor in drive of evolution.

Second, “the extent of the division of labor must always be limited by the extent of the power of exchanging, or, in other words, by the extent of the market”¹. The expansion of original market, disappearance of the old market and emergence of the new market not only change the extent of commodity exchange and personnel communication for the convenience of realizing the value of commodities, but also bring new profit growth points, continuously stimulate commodity production and exchange with constant pursuit of profits, and thus promote the development of social division of labor. For example, industrialization attracted tremendous rural population into the city, and as a result, the increase of the demand for the means of subsistence and the number of laborers further differentiated the original social sectors; the ongoing overseas trade incorporated various countries into globalization, which increased demand for product in terms of variety, quantity and quality, and promoted expansion of production and subdivision of production sectors in the product producing countries.

Third, external impacts easily originate new production sectors, or change the original form of division of labor. For example, climate change migrated some pastoral tribes and even changed their lifestyle, and thus re-distributed population; the commodity economy featuring modern production in the industrial society shattered natural economy in the agricultural society, and thus changed the original mode of production in the traditional self-sufficient countries and regions; the invention of computer, sprouting from military activities for competition of market shares and extensively used in the present day, has laid a solid foundation for genesis of the information sector.

Moreover, people’s production “appears as a double relationship: on the one

1 [UK] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations, Volume 1*, translated by Guo Dali & Wang Yanan (Nanjing: Yilin Press, 2011), 13. It needs to be pointed out that the division of labor discussed by Smith in *The Wealth of Nations* was the productive division of labor in manufacture.

hand as a natural, on the other as a social relationship”¹. “Natural relationship” is the productive power, reflecting what kind of tools and other conditions are used for production, while “social relationship” is the social relations of production, reflecting the social mode of production. “The relations of production in a wide sense include the combination mode of ownership, means of production and laborers, the relations in the direct process of production, and the relations of exchange, distribution, consumption, etc. The relations of production in a narrow sense, however, refer to the relations in the direct process of production”². In the final analysis, the relations of production, in a wide or a narrow sense, are determined by the productive forces, which actually determine the relations of production and the institutional structure through the division and organization of labor inside the society. The appearance of every new form of social division of labor is bound to have an impact on the existing social relations of production. For example, the three great social divisions of labor changed the original form of ownership: the collapse of public ownership in the clan commune and the emergence of private ownership. Ownership is just the basis of relations of production. Meanwhile, the combination mode of laborers and the means of production was changed, namely, laborers gradually lost ownership of the means of production and were forced to work for the exploiting class. The emergence of the class of merchants more directly affected the relations of production, exchange, distribution, consumption, among others.

Finally, the relations of production may react back onto the productive forces. The long-term contradiction between the productive forces and the relations of production turns out to be the supersedure of the old relations of production by the new relations of production which adapt to the development of productive forces. Meanwhile, the new relations of production may exert a certain degree of influence on the original form of social division of labor. After the establishment

1 *Selected Works of Marx and Engels, Volume 1* (Beijing: People’s Publishing House, 2009), 532.

2 Wei Xinghua, “Re-inquiry to the Study Object of Marxist Political Economy,” *Studies on Marxism, No. 1* (2006).

of capitalist relations of production, the productive forces developed fast, and the industrial mode of production represented by the modern industry rapidly became the dominant mode of production in society.

Therefore, the main standard to judge the new social division of labor is the giant change in the technical and social modes of social production, or in the mode of production, such as the invention of new instruments and technologies of production as well as the ensuing exploitation and utilization of the new material resources, the appearance of a new class of laborers, and the change in ownership, the relations of laborers, and the combination mode of the means of production and laborers.

Based on the above analysis, the appearance of the cultural sector in a wide sense (also known as the big cultural sector) composed of science, education, art, health, sports, tourism and other special forms of production can be regarded as a great social division of labor: the fourth great social division of labor. The fourth great social division of labor marked the emergence of a brand new industrial and economic activity, i.e., the big cultural industry and labor, which became an important force to promote economic development and social progress. The appearance of the big cultural sector was both the result of further differentiation of the original production sector in human society, and the reflection of an increasingly improvement of the big cultural demand for science, education, health, sports and tourism. The appearance of the big cultural sector, on the one hand, changed all kinds of cultural resources into important object of labor, and intensified separation of mental labor for physical labor, and therefore a new class of mental laborers began to spring up; on the other hand, cultural factors permeated extensively in economic activities, and thus “the products and services of material production became gradually artistic”¹.

Similarly, the emergence of the computer-centered information sector is called the fifth great social division of labor. The fifth great social division marked

¹ Cheng Enfu, *The Study of Cultural Economy* (Beijing: China Economic Publishing House, 1993), 5.

the emergence of a new field of production — the information production, and the information resources became the important target for the development and utilization of human society. After the fifth great social division of labor, the development of production tended to be informational, automatic and intelligent (The German “Industry 4.0” is a typical intelligent industry), and the combination between production and laborers became more complicated. The machine replaced some mental functions of human beings and partially liberated mental labor with the emergence of the “white collar” class and the IT ranks, a new class of laborers.

As the previous three great social divisions of labor, the fourth and the fifth great social divisions of labor should be attributed to the category of division of labor in general. According to the relationship between division of labor in general and that in particular: first, the establishment of the farming-centered mode of agricultural production can be regarded as a division of labor in particular in the agricultural sector with farming, animal husbandry, fishery, forestry and sideline production as the important component parts. The current modern agriculture is the latest development form of the agricultural sector. The prominent feature of modern agriculture is that science and technology have become the main factors influencing the development of agriculture. Second, the establishment of the modern industry-centered mode of industrial production can be regarded as a division of labor in particular in the industrial sector with manufacturing, construction and transportation as the important component parts. With this division of labor in particular, the working class, a new class, appeared. The machine partially replaced manual labor, and the current modern industry has become the latest development form of the industrial sector with the ever increasing mechanization and standardization of production as the prominent feature of the modern industry. Third, the establishment of the banking-centered financial system co-existing with securities and insurance can be regarded as a division of labor in particular in the commercial sector in a wide sense (exactly the circulation sector). The biggest change caused by this division of labor in

particular was the establishment and operation of the capital market economy¹ and the changing of the general commodity economy into the credit economy and capital economy, with wholesaling and retailing, leasing and business services, and financial industry as the important component parts of the big commercial sector. Fourth, the appearance of the cultural industry centering on science, education and art can be regarded as a division of labor in particular in the big cultural sector with science, education, art, health, sports and tourism as the important component parts. Fifth, the appearance of the information industry centering on the information services can be regarded as a division of labor in particular in the information sector, with the information services and software as the important component parts (Figure 1)².

1 Here, the term “capital market economy” is non-ideological, including all the market economies developing the productive forces with capital.

2 Since the fourth and the fifth great social divisions of labor have been presented in details here, the division of labor in particular in the cultural and information sectors will not be explained separately again. In addition, according to the theory of the Western mainstream economics, sectors of the national economy are divided into three industries: sectors with product directly acquired from nature are the first industry, sectors re-processing the primary products are the second industry, and sectors providing services for production and consumption are the third industry. Although making some sense, this delimitation is unscientific and unreasonable, and not conducive to understanding the real national economic structure of a country; for example, the financial industry and the catering industry belong to the third industry. According to the analysis of social division of labor in this paper, it seems more reasonable to divide the national economic sectors into seven industries: the first industry with agricultural sectors (including farming, forestry, animal husbandry, sideline, fishery, among others), the second industry with sectors producing the means of production (including automobile and special equipment manufacturing, mining, construction, and production and supply of electric power, gas and water, among others), the third industry with sectors producing the means of consumption (including food manufacturing, textile, clothing, among others), the fourth industry with ordinary labor services (including transportation, storage and postal services, leasing and business services, wholesaling and retailing, accommodation and catering industry, among others), the fifth industry with financial sectors (including banking, securities, insurance, funds, trusts, among others), the sixth industry with cultural sectors (including science, education, art, health, sports, tourism, entertainment, among others), and the seventh industry with the information sectors (information services, software, among others). Such a division can better distinguish the different characteristics of labor, different proportions of capital and labor, and other industrial characteristics and industrial structures.

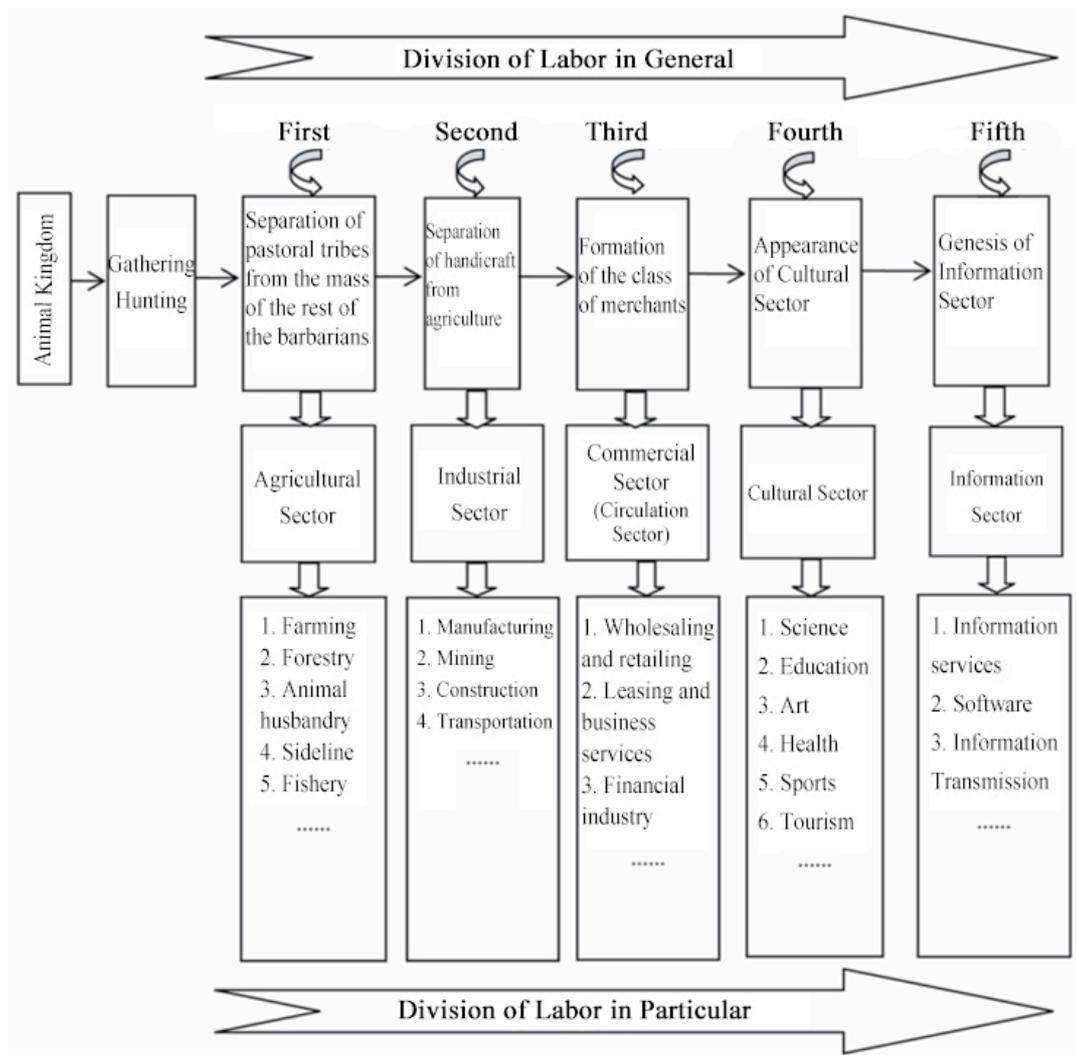


Figure 1 Diagram of Social Division of Labor

3. Realistic Logic of the Fourth Great Social Division of Labor

The state, as an organizational unit, appeared after the third great social division of labor, and state management and production supervision became the important issues in social development. In the relatively stable society with increasing surplus of production, however, some people were entirely separated from the material production and went into the sphere of spiritual wealth production. As a result, some people started to specialize in science, education, art and other cultural activities, and the big cultural sector gradually took shape, which marked the fourth great social division of labor. “Division of labor only becomes truly such from the moment when a division of material and mental labor

appears”¹. The contemporary epoch with a huge wealth of spiritual asset has witnessed the flourish of the modern cultural sector composed of cultural industries and institutions including health care, sports training, tourism, entertainment, among others, which become new economic growth points with their production and consumption closely linked with happiness index and values of citizens and social fashion.

Firstly, “culture emerges with human beings. As a social phenomenon, it existed in ancient times”². Culture is the total material and spiritual wealth created by mankind in the process of historical development. A series of cultural activities in the big cultural sector, whether they are scientific activities to explore unknown fields and reveal the objective law of development through men’s rational thinking, or educational activities to inherit knowledge and technologies, or artistic activities to grasp and reflect the world by means of imagination and emotions, is originated from human practice and serves the economy and values of a given society. Therefore, the big cultural sector with science, education, art, health, sports and tourism as the component parts sprouts from and further promotes social practice and civilization of mankind. Culture, economy and politics are interrelated and mutually influenced, and become the three most important pillars and fields of a society.

Secondly, “religion, family, state, law, morality, science, art, etc., are only particular modes of production, and fall under its general law”³. Culture is a kind of productive power, and the appearance of the big cultural sector marked the first large-scale expansion of human production to the non-material production, which prospered non-material production sectors and exerted a remarkable influence on the development of the productive forces as well as that of economy and society. For example, science and technology directly promote sustained growth of economy and upgrading of economic structure; education disseminates experience

1 *Selected Works of Marx and Engels, Volume 1* (Beijing: People’s Publishing House, 2009), 534.

2 Cheng Enfu, *The Study of Cultural Economy* (Beijing: China Economic Publishing House, 1993), 10.

3 *Selected Works of Marx and Engels, Volume 1* (Beijing: People’s Publishing House, 2009), 186.

in production and life, and spreads new production skills and knowledge; literature and art play an either positive or negative role in the formation and dissemination of advanced ideas and notions; health care and sports training help optimize physical fitness of laborers, and thus affect productive efficiency and effect; and tourism and recreational activities help physically and mentally edify laborers.

Thirdly, the appearance of the big cultural sector with science, education, literature and art as its component parts divided social production into material production and cultural or spiritual production. The contradictory movement between the cultural productive forces and the relations of cultural production promoted the development and innovation of the big cultural sector. Culture has functions of knowledge, education, aesthetics and media, and the advanced culture, in particular, if taking the dominant position in a society, often affects the status of laborers in production and the relations among laborers, and restricts the relations of exchange, distribution and consumption. For example, provided that falsehood, wickedness and ugliness become the aesthetic standards prevalent in society, speculation, money worship and hedonism will inevitably prevail, thus destroying material and spiritual civilization; on the contrary, the aesthetic standards of truthfulness, kindheartedness and beauty, if becoming the mainstream culture and values of the society, are bound to require or promote social members to actively participate in beneficial labor to create all kinds of wealth, boost effective production and rational consumption through honest and independently associated labor, always uphold the people-centered development guideline and the principal position of laborers, avoid polarization, get rid of poverty, and achieve the goal of prosperity for all. The present world sees among countries an increasingly fierce comprehensive competition, of which the key is the big cultural competition with science, education and art as the core. Having become an important component part of the comprehensive strength of a country, the cultural soft power shows its growing prominent importance.

4. Realistic Logic of the Fifth Great Social Division of Labor

After four great social divisions of labor, human society experienced a long social form of agricultural society. Three technological revolutions occurred from

the mid-18th Century to the mid-20th Century: the first represented by the steam-engine and mechanical loom, the second marked by electric generator and motor, and the third by space technology and computer. After the first computer calculating the trajectory parameters saw the light in 1946, computers and other cutting-edge military technologies have quickly been applied to civilian industries and social management. Since the 1990s, communications and computer technologies have been more and more closely combined, and information acquisition and processing have become increasingly important, thus calling into existence a new sector: the information sector. The words “information society”, “information era” and “information economy” have been frequently mentioned. The so-called “information society” refers to a new social form with information as the basic driving force for social development, information technology as the basic method, information economy as the leading economy, and information industry as the supporting industry”¹. Undoubtedly, informatization is a major orientation and trend for the development of the world today. It has exerted a series of far-reaching and extensive impacts on the whole economy and people’s social life. The appearance of the computer-centered information sector, rated as the fifth great social division of labor after the emergence of agricultural, industrial, commercial and cultural sectors in human society, has separated the information production from the general material production.

Firstly, although information has played an indispensably important role in people’s production and life ever since its emergence in human society, this important resource did not obtain the independent carrier and the form of independence movement and become a relatively independent factor of production until information technology and information sector achieved a great development. Information acquisition, transmission and processing have become the important driving force for the development of productive forces. The computer-centered information technology has gone its way into various sectors of

1 Zhao Danya, Cheng Jianping, et al., *IT Application and Life* (Beijing: Jinhua Publishing House, 1997), 4.

the national economy. With informatization of data, text and images, it has created a new pattern of “Internet plus” and big data. As a result, economy relies more deeply on the information resources.

Secondly, the fifth great social division of labor has exerted a great influence on laborers and the instruments and the means of labor. From the perspective of laborers, their quality has greatly improved. The information-related labor has emerged, which specializes in information collection, processing and transmission, and continues to intellectually develop laborers. The number of information-engaged “white-collar” laborers constantly increases and tends to be more than that of “blue collar” laborers of some material production fields in some countries. The proportion of the output value created by the information sector in GDP has also significantly increased. From the perspective of the instruments of labor, the combination of the computer-centered information technology with other instruments of labor helps automate, informatize and intellectualize the labor process, realizes control of machine and replacement of part of the mental labor by machine, and reduces consumption of material resources to a certain extent in the process of production. From the perspective of the object of labor, the computer-centered information sector has expanded the extent of human labor, turned information, an intangible resource, into a new object of labor, and increased the number of social wealth to a great extent.

Thirdly, the fifth great social division of labor has exerted a profound impact on production, exchange, consumption, and mode of combination between laborers and the means of production, among others. From the perspective of production, the original large-scale standardized and mechanized production tends to change into the personalized and intelligent mode of production, and the structure of the material production sector in some countries starts development toward the direction of cutting-edge and intensive technology with the emergence of the so-called “softening industrial structure”. From the perspective of exchange, the “Internet plus” and big data times based on computer technology form a national and even the global sales network so that commodities can be rapidly and accurately allocated worldwide. From the perspective of consumption, consumers

can participate in design and production of products through the information network and thus link consumption and production. From the perspective of combination between laborers and the means of production, the original laborers, by use of large amounts of information, can scatter production, communicate with other laborers long distance away, and even change some of the values.

The fifth great social division of labor and the wide application of information technology have verified the argument that science and technology are a primary productive force. This revolution triggered by information technology is still in a profound progress, but the information sector born in the fifth great social division of labor does not and is unlikely to replace the past material production sector. Instead of eliminating the development gap among countries and regions, the wide application of information technology has even formed the chasm of information.

II. Several Representative Divisions of Labor in Particular

Special Division of labor in particular has been deepened inside the sectors of the five great social divisions of labor in terms of agriculture, industry, commerce, culture and information. Along with the constant evolution of the social division of labor constituted by divisions of labor in general and in particular are the vicissitudes and changes of economic civilization among different countries and nations. Here we mainly discuss the marker and situation of division of labor in particular in three major sectors: agriculture, industry and commerce.

1. Division of Labor in Particular in the Agricultural Sector

Historically, the agricultural sector remains the dominant sector in the long agricultural society experienced by human beings. In an agricultural society, the farming-centered mode of agricultural production is the foundation to maintain and promote the social development, and therefore the establishment of the farming-centered mode of agricultural production is called the division of labor in particular in the agricultural sector. The emergence and development of the division of labor in particular in the agricultural sector are closely constrained by natural conditions (ecological environment). Countries, nations and regions are

faced with different natural conditions, and their agricultural sectors show much different forms of division of labor in particular, thus leading to the preliminary divergence of civilization.

Firstly, before the establishment of the farming-centered mode of agricultural production, the first great social division of labor had already occurred, pastoral tribes had been separated from the mass of the rest of the barbarians, and human life tended to settle down, but with a very loose interpersonal relationship, it was not a widespread lifestyle. Only after emergence of the agricultural mode of production was it possible and normal for mankind to settle down their production and lives, did the issue of who possess the means of production really appear, did men frequently carry out the exchange and distribution activities, and did human beings gradually tighten their mutual relations.

Secondly, at the level of the productive forces, the early development of human society saw underdeveloped productive forces and decisive selections of technologies and influence on social division of labor by natural conditions. In turn, selection of different technologies and forms of social division of labor had an economic and cultural impact. For example, in flat and rainy areas, animal husbandry often dominated in the agricultural sector; while in mountainous areas with scarce land and rainfall, farming often took the lead. These two typical cases were reflected in the different forms of division of labor in the agricultural sectors of the Eastern and Western countries. With a humid climate and many plains and fertile land, Western Europe had a mixed economy of agriculture and animal husbandry with foreign trade as an important means of national survival in such natural economic system. The then spice trade from Western Europe to East Asia occupied an important position in Western Europe in the Middle Ages, and in order to make longitudinal positioning in the navigation from the west to the east, scientists put forward quite a few solutions, which promoted the emergence and development of science and technology to a certain extent. On the contrary, in most areas of ancient China, the ecological environment with many mountains, few farmland and dry climate kept China taking the single grain-based small

peasant economy, forming a well-cultivating mode of production¹. “The handicraft period bequeathed to us the great inventions of the compass, of gunpowder, of type-printing, and of the automatic clock”², which could have been impossible without the division of labor in agriculture, the technological progress and the increase in labor surplus under the division of labor.

Thirdly, the emergence of division of labor in particular in the agricultural sector was the result both from human adaption to nature and from their active exertions of subjective initiative. The emergence greatly promoted the development of productive forces, boosted genesis of the brilliant agricultural civilization, and enormously enriched the mode of combination between laborers and the means of production. In the agricultural sector, the most important means of production for laborers was undoubtedly the land. However, the concrete modes of the relationship between laborers and land were different in different forms of division of labor in particular. Laborers use land to grow plants in farming, breed animals in animal husbandry, utilize forest and fishery resources in forestry and fishery, and make and process other products in sideline. In this way, people in different areas could develop diverse technologies according to their specific regional conditions so as to maintain subsistence and production. The agricultural mode of production, the most advanced one in early civilization of human society, had taken a dominant position in the world for a long time.

At present, the advanced form of agriculture in the world is the modern agriculture. Being scientific, intensive, ecological and market-oriented, the modern agriculture has greatly improved productivity by making use of modern industry, modern science and technology, and modern management methods. Information-oriented agriculture, organic agriculture, sightseeing agriculture, green agriculture and ecological agriculture are all the main forms of the modern agriculture. The emergence and rapid development of modern agriculture is not

1 See Chen Ping, *Civilization Divergence, Economic Chaos and Evolutionary Economic Dynamics* (Beijing: Peking University Press, 2004), 8-11.

2 *Selected Works of Marx and Engels, Volume 5* (Beijing: People's Publishing House, 2009), 403.

only the reflection of the agricultural division of labor in particular in the contemporary society, but also the inevitable result of the application of advanced science and technology in the agricultural sector.

2. Division of Labor in Particular in the Industrial Sector

Industry and the industrial sector are the direct outgrowths of separation and independent development of handicraft from agriculture. With the continuous development of productive forces, the machine-based industrial sector replaced handicraft and agriculture and became the leading sector of the society. Production with machine became the basic method of commodity production in the industrial society, and with the later invention of electric generator and motor, the production of human society gradually realized mechanization and electrification. When the modern industrial sector was established with its leading position determined in the industrial society, a large number of industries emerged one after another, such as manufacturing, chemical industry, construction, among others. The establishment of the modern industry-centered mode of industrial production can be regarded as a division of labor in particular in the industrial sector. The emergence of the industrial sector, especially its internal division of labor in particular, absorbed a large number of laborers from the agricultural sector and turned them into the industrial working class, and at the same time produced a class of managers specializing in management. Economic management became an important component part of social production, and factory became the common workplace for laborers, who were combined with the means of production by means of wage labor or joint labor. Applied to the agricultural sector, the achievements of the development of the modern industry also promoted mechanization and modernization of agricultural production. The division of labor in particular in the industrial sector exerted a far-reaching influence on both the productive forces and the relations of production. If the division of labor in particular in the agricultural sector had already germinated divergence of different civilization in the future, then the division of labor in particular in the industrial sector was the basically completed form of divergence of different civilizations.

Firstly, the modern industry was the key to the constant progress of

industrialization, which tremendously changed the structure of national economy and society, and increasingly enriched social material and spiritual wealth with industrial upgrading as the core of economic growth and division of labor inside industry. First of all, the modern industry and the industrialization it promoted greatly accelerated the change from agricultural production towards non-agricultural production. As industrial and commercial growth rate increased faster than that of agriculture, the proportion of the agricultural labor forces in the entire social labor force continuously declined, so did that of the agriculturally created output value in the GDP. Moreover, the modern industry and the industrialization it promoted dramatically changed people's mode of production and even their lifestyles. Machining massively replaced manual labor with upgrading productivity and precision as well as the endless new objects and means of labor. Finally, the modern industry and the industrialization it promoted sped up the progress of productive forces and technology. Human society saw an unprecedented upgrading of economic growth rate, constant expansion of social production extent, and closer connection among sectors, regions and countries. From the production line of a single product to the worldwide multinational companies and sales network, from the simple textile sector, to a series of light industrial sectors, and to heavy chemical industrial sectors, and from the means of transportation on land to those at sea and in air, new jobs, sectors, products and production processes continuously came out, nation-based international division of labor began to appear, and the level of industrialization became an important standard to measure the development of a country.

Secondly, the modern industry was the key to the development of manufacturing, which was the foundation of the national economy, whose rise and fall determined the economic development of a country to a certain extent. First, manufacturing driven by the modern industry was the most important carrier to achieve technological breakthrough and revolution and the most important soil for survival of technology, and technological progress was in turn the root of economic growth and development. "Manufacturing is the first source of technological innovation in modern western society, and this industry has always

been the core field for independent inventions and technological improvements”¹. Second, manufacturing driven by modern industry was the fundamental path for a country to establish the strong and complete industrial system and industrial economy. It had become an important experience all over the world to develop strong countries and enrich people through manufacturing since the Industrial Revolution. The United Kingdom, historically “an empire on which the sun never sets”, relied on its long-term global hegemony on the strong manufacturing and industry, and the contemporary United States materially and technologically bases its global hegemony on its important position in high-end manufacturing.

Thirdly, when promoting inventions of new instruments and technologies of production, development of new material resources, appearance of new classes of laborers and objects of labor, the modern industry also brought about world problems such as consumption of massive resources and energies, increasingly serious environmental pollution, among others. The competition for international market share and appropriation of energy resources has become an important form of international competition. On the one hand, the formation of the world market and expansion of market share can solve the surplus production and deficient economic development space under huge productive forces; on the other hand, to overcome shortage of energy resources and environmental pollution, human society continues to seek new technologies and develop new modes of production and life, and thus promotes the progress of productive forces.

The further development of division of labor in particular in the industrial sector marked the emergence of the modern industry. At the end of the 20th Century, the upgrading and extensive application of computer technology modernized industrial production technology and turned modern industry into the latest form of industrial economy. The modern industry is mainly characterized by further automated and precise instruments of labor, highly collaborative, amalgamative, specialized and centralized production process, flexible and precise

1 [US] Vaclav Smil, *Made in the USA: The Rise and Retreat of American Manufacturing*, translated by Li Fenghai & Liu Yinlong (Beijing: China Machine Press, 2014), 16.

management method and path, high-quality workers, managers and technicians, and reasonable production extent and industrial structure.

3. Division of Labor in Particular in the Commercial Sector

The commercial sector was the outgrowth when commercial exchanges and merchants, the key economic participant, developed to a certain extent. Historically, with the independence of the merchant class from the sphere of production “came also the development of metallic money, the minted coin, a new instrument for the domination of the non-producer over the producer and his production”¹. The metallic money, commodity and land constituted the main forms of social wealth at that time. Bankruptcy of small producers caused by money and usury, annexation of land by land and the ensuing bankruptcy of peasants often ignited class struggle in class society, and the violent and non-violence activities driven by class struggle changed one regime after another in history. With the development of productive forces, especially that of commodity economy, the metallic money sprouting from commodity exchange had an increasingly strong feature of the domination of the non-producer over the producer and his production, and eventually called into existence the special group and institution specializing in money: bankers and the bank. The establishment of the financial system with the modern bank as the core created conditions for the change of commodity economy into credit economy and capital economy, and realized creation of massive credit money. The capital market economy including financial network, financial market, and markets trading treasuries and various bills thus emerged and rapidly developed. Therefore, the establishment of the banking-centered financial system coexisting with securities and insurance is regarded as a division of labor in particular in the commercial sector (circulation sector), which exerted a tremendous impact on countries all over the world. Take the capitalist system born in the West as an example. The modern capitalist system was the outgrowth of the monetary and financial economy rather than the

1 *Selected Works of Marx and Engels, Volume 4* (Beijing: People’s Publishing House, 2009), 185.

commercial market economy¹. In the west, the founding of modern banking, invention of sovereign credit money and controlling of the right to issuing money by financiers sprouting from the merchant class made it possible to appropriate massive money, so as to promote the establishment and development of the capitalist mode of production, which was an important cause for “the great divergence” between the East and the West².

Firstly, the prototype of the modern banker was the usurer, and the interest-bearing capital, or the usury capital, like the merchant capital, had long existed in history. Once independent of production and trade and rising to the financial capital form, these interest-bearing capital, or usury capital, would necessarily gain the initiative and become the ultimate power controlling the national economy. With the “theory of founding a nation with war credits”, the American scholar Charles Tilly presented the relationship of the Western capitalist regime with war and treasuries: “Historically, few big countries can afford their

1 See He Xin, *Struggle and Thinking* (Shenyang: Wanjuan Publishing Company, 2011), 23. The so-called commercial market economy is a simple economy of commodity production, transportation and exchange without the central bank, commercial bank, credit creation and financial market.

2 “From the Qin and Han dynasties to the late Qing Dynasty, China’s right to issue money (mint metallic money) was firmly held by the state. Without the right to mint money, merchants could not control circulation of money and then gain usurious interests, and therefore they could not accumulate massive liquid monetary assets. As a result, capitalism could not leap from the original capital form of trade and commerce to the pure capital form of money and finance.” (He Xin, *Struggle and Thinking* (Shenyang: Wanjuan Publishing Company, 2011), 23.) On the contrary, the ancient Europe witnessed a millennial dualistic confrontation and conflict between regime and religion (the fundamental reason that religion had so giant influence that it could constantly take the regime lies in the low development of the social productive forces at that time). After Christianity became the state religion of Rome, the religiously persecuted Jews lent money at usury for survival, and finally the Jewish merchants controlled the financial and economic lifeline in Europe till the establishment of the commercial banks and the control of the world finance. Therefore, Marx argued, “The Jew has emancipated himself in a Jewish manner, not only because he has acquired financial power, but also because, through him and also apart from him, money has become a world power and the practical Jewish spirit has become the practical spirit of the Christian nations.” *Selected Works of Marx and Engels, Volume I* (Beijing: People’s Publishing House, 2009), 50. Here the “manner” obviously refers to the financial manner. The different roles religion plays in the development of eastern and western civilizations can refer to Zhang Wenmu, *The Impact of the Rise of Christianity and Buddhism to Eurasian Competitiveness* (Beijing: Tsinghua University Press, 2015).

military spending with the current fiscal revenues. On the contrary, they need to cope with shortages with credits in one form or another ... A country that borrows money quickly are mobilized faster than its enemy, and can therefore increase its chances to win the war. There is no doubt that the availability of credit depends on repayments of a country's former debts, but even more on the emergence of capitalists. Capitalists (when they are willing to do so) serve the country as leaders, loan raisers, revenue administrators of credit payment, or even revenue raisers"¹. Braudel, a representative of the French Annales School, also argued profoundly, "The time when capitalism converges with the state, i.e., when it is the state, is the day of its victory. In the first great stage of the capitalist development, those taking power in Venice, Genoa and Florence of the Italian city-states were actually the best of the rich people. In the Netherlands in 17th Century, the regent aristocracy, for the interests of businessmen, wholesalers and investors, even ruled the country under their instructions. In the United Kingdom, the revolution in 1688 marked the industrial and commercial accession to the throne, as in the Netherlands"². The early usurers in the West became the real master controlling the state power along the path of "war — treasuries — bank — financial network", and finally took the lead in the world monetary and financial system. The early merchants became financiers controlling the European business and finance of royal families in various countries through usury economy until they controlled the European money issuance. Eventually these financiers established the first commercial banks in the world at the coastal cities of Italy, and then limited the old usury for establishment of the capitalist economic system.

1 [US] Charles Tilly, *Coercion, Capital and European States, AD 990-1992*, translated by Wei Hongzhong (Shanghai: Shanghai People's Publishing House, 2007), 95. In my view, one of the root causes for the constant European wars in the history is still the backward productive forces and the narrow space for development. As the constant wars stimulated credits, the rulers borrowed money from the merchants in the form of tax mortgage or issuing treasuries, and finally called into existence the banks specializing in money and creating credits. Financiers thus seized the right to issue money, hence the alliance between money and politics.

2 [FR] Fernand Braudel, *The Dynamics of Capitalism*, translated by Yang Qi (Beijing: SDX Joint Publishing Company, 1997), 43-44.

Secondly, separation of financiers from the merchant class and establishment of modern banks realized the transnational financial system and network, and further accelerated exchange and collision between globalization and the forms of social division of labor in particular in civilized countries. When the Western financial capital and financiers took control of the state power, financiers carried out the colonial geographical discovery with support of abundant capital, thus more closely linked economic activities scattered around the world, and objectively promoted the development of the world-embracing commerce. Meanwhile, the Western world established with their arm forces the trade and financial network which controlled the whole world, occupied massive resources, energies, international finance and the vast overseas market, and finally set up the new world system dominated by the financial monopoly capital. With the world's wealth constantly flowing from periphery to central areas, the unfair international economic and political order was thus formed¹.

Thirdly, “the banks, as we know, are centers of modern economic life, the principal nerve centers of the whole capitalist economic system”². Separation of financiers from the merchant class and establishment of modern banking turned finance and sovereign credit money into the important factors of production and instruments of management. Although it is not a universal practice for the history that the merchant class in the West established the capital market economy by controlling the right to issue money of the state, the modern history of economic development shows that the universal key for developing countries turning from agricultural society to industrial society is whether they can establish modern banking, especially the financial system with the central bank as the core, and then control their national monetary and financial sovereignty, create the sovereign credit money, establish the capital market economy, and provide massive

1 The competition in terms of international finance, high-tech, market, resources, energy, industry and intellectual property rights has become the important content of the international competition, and may even result in war and conflict in the case of serious competition. To some extent, the unbalanced development, injustice, war and conflict in today's world are related to the irrational international division of labor.

2 *Completed Works of Lenin, Volume 32* (Beijing: People's Publishing House, 1985), 189.

information for their national economic development and industrialization¹. Without a good solution to the issue of sovereign credit money, capability to guide and control capital, and effective “civilization function” of capital, the state financing ability will necessarily be weakened, the development of productive forces checked, industrialization hard to rapidly complete, and the state even reduced to be the vassal and financial colony of the Western powers. This is also the real reason why Marx and Engels stressed “centralization of credit in the hands of the State, by means of a national bank with State capital and an exclusive monopoly”² in the *Manifesto of the Communist Party*.

Separation of financiers from the merchant class and establishment of the modern financial system centering on banking and coexisting with securities and insurance, while creating prerequisite for the rapid development of productive forces, foreshadowed many problems in the world today. On the one hand, the use value of commodity was separated from its value while human society turned from the agricultural mode of production to the industrial mode of production, and from commodity market economy to capital market economy. The mad rush of capital for value and profit not only greatly accelerated the scientific and technological progress and the development of the new market, but also consumed massive resources and energy. As a result, capital intensified exploitation on the labor power and the vast outlying areas, and monopolized the international finance, high-tech, resources and energy at a higher level. The continuous progress of science and technology and the deepening exploitation and monopoly, in turn, increased competitiveness of capital, and then sped up the economic development. On the other hand, the market economy was essentially the credit economy, which was determined by the profit-seeking financial capital to hinder production and devour profits of the real economy, thus easily virtualizing and bubbling the

1 History results from the combination of natural development and people’s conscious struggle. In this sense, while consciously pursuing commercial profits, the Western merchants accidentally created the history and opened up a new epoch.

2 *Selected Works of Marx and Engels, Volume 2* (Beijing: People’s Publishing House, 2009), 52.

national economy. The virtual economy, a new economic form, has appeared and even occupied an important position in the national economy of various countries. The financial service industry of the present Western capitalist countries (typically the United States) is in essence the worldwide fund-raising economy, namely, an economy raising fund in the style of Ponzi scheme in the developed international financial market by means of a large number of financial derivatives. It therefore not only threatens the stability of the international financial market, expands spread of financial crisis, and exacerbates imbalance in global development, but also exerts negative impacts on the national economy, such as industrial hollowing, economic bubble, among others.

Therefore, along with the emergence of the financial system, a division of labor in particular, centering on banking and coexisting with securities and insurance, financiers (a new class), finance and sovereign credit money (a new important factor of production and operating method) and virtual economy (anew economic form) have appeared on the stage of human social development. The virtual economy with financial capital at the core has exerted a very important effect on the development of human society. Finance, the artery and engine of a country's national economy, has a more and more economic impact on countries around the world.

III. Conclusion: Basic Laws of Deepening Social Division of Labor

In conclusion, with different levels of the development of productive forces in every epoch, the condition for extension of social labor is naturally different, so is the deepening level and situation of social division of labor, a form of the social labor. Therefore, the deepening of social division of labor can only be concretely and historically comprehended. However, the entire process of the deepening social division of labor has so far shown a three-dimension of length, width and height: social division of labor has existed for thousands of years (length); in each great social division of labor (division of labor in general) new sectors emerge (width); inside each sector new division of labor continues to take place (division of labor in particular), hence the genesis of new industries (height). An overview

of the development history of the five great social divisions of labor and the division of labor inside sectors can generalize the basic three-element law of deepening social division of labor.

First, the productive forces are the prerequisite for deepening division of labor, and the level of the productive forces determines the length, width and height of deepening social division of labor. The system of social division of labor consisting of divisions of labor in general and in particular is the outgrowth of the continuous development of social productive forces. In this process, the state and economic participants exert an important influence on the evolution process of social division of labor. Social division of labor is a double-edged sword in that each new social division of labor both promotes the development of social productive forces, and brings many negative problems. The reform of science and technology, as the primary productive force, promotes human development of new modes of production and forms of social division of labor, and such interaction over and over again is unified in the development process of the entire human society. In the future, the social division of labor will still continue to develop with the constant improvement of social productive forces. Labor in the sphere of material production will continue to be subdivided with unknown spheres and activities of non-material production will continue to be explored and excavated. The system of social division of labor will inevitably continue to be upgraded and rationalized with the development of productive forces. As argued by the founders of Marxism, “How far the productive forces of a nation are developed is shown most manifestly by the degree to which the division of labor has been carried. Each new productive force, insofar as it is not merely a quantitative extension of productive forces already known (for instance the bringing into cultivation of fresh land), causes a further development of the division of labor.”¹

Second, demand is the important motive force of deepening social division of labor, and the level of demand structure mainly affects the width and height of deepening social division of labor. Generally, production follows need closely,

1 *Selected Works of Marx and Engels, Volume 1* (Beijing: People’s Publishing House, 2009), 520.

and people are bound to “discover, create and satisfy new needs arising from society itself”¹. With the relatively underdeveloped productive forces, people mainly demand for basic subsistence, and therefore the production at that time is mainly to produce material wealth, and social division of labor takes place mainly in the sphere of material production; with the improvement of living standards, people’s cultural and spiritual demand grows with a gradual emergence and increase of some sectors and industries producing the spiritual wealth; with the further improvement of living standards people more upgrade the demand for consumer products, so much so that a large number of intelligent consumer products appear in the contemporary times (such as intelligent mobile phone, palmtop computer and the improving family robot), and people can even send to producers the product drawings designed according to their own demand. The 4D printer and other high-techs more humanize production and promote an intelligent transformation of manufacturing, which inevitably lead to further division and subdivision of the original production sectors and industries.

Third, exchange is an important traction for deepening social division of labor, and the extent and scale of exchange mainly affect the width of social division of labor. “The development of the product into a commodity and the exchange of commodities react back onto the division of labor, so that exchange and division enter into a relation of interaction”². In the process of social production and reproduction, the material, information and money flows constantly exchange and expand the system of social division of labor. From the perspective of material flow, exchange of material products makes people realize the benefits of specialized labor brought by division of labor, improve their demand for specialized products, and thus further deepen the division of labor inside the original sectors. From the perspective of information flow, information exchange as well as material exchange goes with production and life of the people. Exchange and sharing of massive information resources can improve skills of

1 *Selected Works of Marx and Engels, Volume 8* (Beijing: People’s Publishing House, 2009), 90.

2 *Completed Works of Marx and Engels, Volume 47* (Beijing: People’s Publishing House, 1979), 312.

labors and reduce production cost of producers, and thus promote deepening division of labor inside sectors of the labors and producers. From the perspective of money flow, in the market economy with money as a measure of commodity value, the money flow reflects the profitability of related industries to a certain extent, determines the direction of flow of labor and material resources, and then influences deepening division of labor in relevant sectors.

Thus it can be seen that, under the law of the social division of labor, although social division of labor is a common phenomenon in all social forms, each country, nation or region, with differences in the level of science and technology, history and culture, natural conditions and other factors, experiences different forms of social division of labor, and then shows diversity and differences in their development patterns. Only by understanding their own national conditions, following the basic law of social division of labor and drawing on experience and lessons of others can these countries narrow and eliminate the gap in the development of social division of labor.

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