



# The Distinguishing Background, the Path and the Pattern --Analysis on China's Economic Growth Path in the Recent 60 Years

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## Abstract

China's economic growth characteristics are featured in three respects over the past 60 years: the first one is the distinguishing transition background based on the "second best" and characterized by "surpassing", "homing" option; the Second one is the step-by-step typical growth path which is from the "learning style" to "combination of learning and innovation"; the third one is the characteristic growth pattern from the obvious resource dependence, technology dependence to self-innovation.

**Keywords:** Typical growth path, Economy in transition, Way dependence, Development pattern, China

## 1. The distinguishing reforming economy background from "surpassing" to "homing"

Reforming is transformed from one kind of socio-economic system or shape to another kind of socio-economic system or shape. It follows the order from the lower to the senior of the law of conversion, which includes two aspects: first, the possession relations of individual labor in production relations—"the relationship between ownership" and the derived transformation of human society; on the other hand, relations of production of individual labor relations and social work might the relationship between the individual and society, that is, "the relationship between the economic performance" and the resulting derived conversion of human society. For the former, in 1859, Marx in the "Critique of Political Economy Preamble" (added by Lenin and Stalin and others later) proposed the development of human society the famous "five-form theory" - followed through primitive society, slave society, feudal society, capitalist society, communist society (the initial stage of socialist society) the five stages of development. For the latter, Marx in 1857-1858, "Economic Manuscripts" in relations from the perspective of the economy, illustrate the development of human society more generally, but also more importantly, the law of the three forms, namely, "to rely on the relationship between people (natural economy), the dependence of material (commodity economy) and the human personality and freedom to complete the liberation of the (time the economy)" (Marx, 1858) three stages. For a long time, the five-form theory of Marxism not only has been seen as forms of social division of the orthodox theory, but as the only theory. In fact, however, the development of human society in the above-mentioned two forms theory, the theory based on ownership relations of "Five Forms" followed by the replacement class relations attach importance to class relations of production-oriented and socio-political nature, which reflecting the general laws of the world historical development.

However, this does not exclude the possibility that some law of the country and the nation, due to special historical conditions of emergence of the exceptional circumstances in which a social formation transforms to another change in the process, can also be able to go beyond one or a few social formation, to achieve "leap of turnover." For example, in the immediate post-liberation China, the Tibetan, Yi and other ethnic minorities, but also in the social forms of slavery, the Northeast and even in Olunchun tribe is still in the primitive commune period, later than the direct access to several

social form of socialist society (Liu youcheng, 1987; Zhao jiaxiang, 1985). It is this "jump" in leaps and bounds turnover or choice has brought nations and regions, ethnic and national differences between the fundamental, the world and the so-called national characteristics and the "conditions" are the source of the emergence of this. While dependence relationship between people, dependence relationship between substance and the theory of freedom of personality "three forms" followed by the replacement pay more attention of economic relations of production-oriented and human nature, what is has reflected is not only general laws of the world economic development, but also the special laws of development of the national economy in different countries, and especially the middle of the three forms of economy - commodity economy is the insurmountable stage of human society development. Any country and nation are no exception, or else they will face the punishment of the law and pay a high price. This law reveals the nature and the main line of the process of socio-economic development of mankind. From the above sense, the former may be called the conversion theory of social forms. The later may be called the conversion theory economic forms. Therefore, socio-economic transformation, not only including the social patterns, but also the economic patterns; it can be both uniform and one-sided. In general, however, it is carried out between the two intertwined.

However, from the existing practice of conversion, in less than 80 years of the 20th century, the conversion options which does not correspond to the theory expectation has twice appeared in the process of the development of human society : First, after the First World War and the Second World War, former Soviet Union, Eastern Europe and China's social development has emerged not only the "well-being" choice of society form based on ownership system, but also the "Beyond" option of the economic form between the relationship of economic performance. That is, at the same time of the conversion from feudal or capitalist society to socialism society, socio-economic patterns skip stages of development of commodity economy to a direct stage of product economy from a natural economy stage. Second, in the late 20th century, the development of human society has emerged in the form that can be referred to as "localized" and "temporary" "homing" option, that is typical in the Soviet Union in Eastern Europe for economic operation of ownership and the relationship between the "double back" option, can also be called a comprehensive reverse from socialism society to capitalism society. China has the different nature compared to them but presents the "re-"homing" of a" choice between the economic performance relationship. It means choose from the product economy stage back to the stage of the commodity economy to develop the socialism market economy. China's economic growth is accompanied by the "super-surpassing" style transformation and generated, and reformed based on the "homing" type transition. China's social and economic conversion characterized by this kind of "super-surpassing", "homing" choice and the "friction" in the conversion is the profound context of China's economic growth.

The transformation of Private ownership of Chinese society from the last change to a more advanced public ownership society, has neither the typical "characteristics in order to "surpassing"" nor the typical meaning of "jump" change of features. But something in between, that is, from the semi-feudal, semi-capitalist social forms of the duality of social change to public ownership. It means, from the "compatible" private ownership social change to socialist society. Although historians generally believe that the capitalism has emerged in its infancy in late Ming and early Qing China, but due to a strong suppression of the feudal forces, capitalist development has been quite slow. The process had been broken by the invasion of Western capitalist before it was not independently form the transition to a capitalist society. After The Opium War in 1840, especially after 1960s, foreign capitalists opened factories in China, cultivated the imperialist comprador bureaucratic capitalism in China, formed a bureaucratic monopoly stage assets. This was gradually reduced Chinese to the semi-feudal and Semi-colonial society. On its side for the semi-feudal, old China belongs to the feudal social formation, on the side of a semi-colonial, the old China is a capitalist social formation, because old China is a colonial of the capitalist countries, colonialism did develop capitalism in China. If we study the above findings combining with the geographic distribution of China, we will find: China's vast rural areas is a direct transition from a feudal society to a socialist society, while the basic and medium-sized cities may be regarded as the transition from capitalist society to socialist society. In short, the process from urban and rural differences in the duality or "compatibility" private ownership social transition to public ownership socialist society is one of the basic features of China's socio-economic transformation choice. In addition, the majority of China's western regions, including Xinjiang, Tibet, Qinghai, Ningxia, Inner Mongolia, Guizhou and the like, the overwhelming area's had been still in the slave society before 1949, the Olunchun in Northeast had been still in the primitive society. These areas crossed a number of direct access to a socialist society with depth of the socialist transformation shortly after the nation foundation.

Along with the social forms of the above conversion, the conversion of Chinese economy reveals the complex select characteristics of ""super-surpassing". That is, on the one hand, the old China's economy pattern has a clear duality before the conversion: the dominant nature economy in vast rural areas, its corresponding "person dependence", low-level commodity economy in the subordination of the large and medium-sized cities and the corresponding "substance dependence" co-exist. In the long river of the world economy history, natural economy includes four basic forms: commune economy, the ancient city-state economy, China's small-scale peasant economy and the host economy, the Western European medieval manor lords economy. As a typical example of natural economy China's small-scale peasant economy and the host economy has the longest continuation history. It was the prevalence of the former vast

rural areas until the establishment of New China. In such a closed natural economy where lineage and blood is the premise while production and consumption are in a unity, the person dependence relationship is the performance of people's dependence on land, on the natural environment and on the relationship between the village groups. At the same time, in the large and medium-sized cities along the southeast coast which centers Shanghai, Tianjin and Guangzhou, as well as the cities along the Yangtze River, Nanjing, Wuhan and other cities which was forced to open. In the Westernization Movement, Xinhai Revolution and the history of the policy process of the Kuomintang regime in Nanjing, along with the establishment and development of industrial and commercial as well as the formation of bureaucratic capital and state monopoly capitalism, commodity economy obtained a certain extent development, substance dependence relations had immersed increasingly. Due to the level of productive forces and the shackles of war, however, capitalism and the development of commodity economy is very slow, especially after entering the War of Resistance Against Japan in 1937, and basically in a hover, cochlear status of ant step. Therefore Capitalism and the commodity economy had been in the low level of development. On the other hand, the conversion on the basis of compatibility of the duality of urban and rural economic structure had a significant "Beyond" characteristics. That is, China's vast rural economy should be transformed from the natural form to the commodity economy in the history premise of insurmountable commodity economy. The city should be conversed from low-level stage of the commodity economy to a high level of the commodity economy. To sum up, China's economy should be a natural economic transition to a commodity economy. However, the choice of practice does not match theoretical expectations, but skip the development stage of the commodity economy, with direct transition to the "product economy" which is similar to Marx's "time economy". Marx and others' idea of "time economy", is based on the premise of the highly development of the commodity economy while the reality of China is very backward and on the economic base of compatibility with the dual nature. Thus the Sharp conflicts between the ideal model and the reality level of productivity came into being. A new economic form, in the premise of the absence of the productivity on which it depends, its operation is bound to be distorted. On China's view, "time economy" by innovator of scientific communism has been distorted as product economy with Chinese characteristics. The economy has a typical "shortage economy" characteristics and "the copied natural economy" characteristics, which can be regarded as a "abnormal type" or "distorted type" of "time economy".

As the leading and core economic micro-foundation of product economy, our country's state-owned enterprises, rural people's commune, and production brigade, etc., has generated during the above ""surpassing""surpassing"" option of social and economic patterns with the dictatorship regime as well as its forces and the implementation of a mandatory approach (or revolution). It is this mandatory that has made our country established socialist public economy system which places in the state-owned economy as main status while the collective economy as the auxiliary system in less than a decade (1949-1958). However, an agriculture country dominated by natural economy typically wants to establish in the near future a wide range of state-owned industrial enterprises system, it not only is bound by the shortage of resources, but also is lack of appropriate organizational and management experience, at the same time withstand a comprehensive test of the blockade of the whole capitalist world (or commodity economic society). Therefore, "super-industrial development strategy" of Soviet-style, "paternalism" state-owned enterprises and their planned economy models, have been the choice of the new China historically.

In fact, socio-economic transformation is a typical ""surpassing""surpassing"" conversion since the end of 1957 after the completion of socialist transformation. It means the social forms is transited from semi-feudal and Semi-colonial society to socialism society in sequence, the economy patterns, resource allocation methods as well as micro-economic fundamentals achieved exceeding conversion options in varying degrees. Obviously, the resource allocation choices of the "planned economy" corresponding to the product economy and its state-owned enterprises---the micro-foundation are also an exceeding choice. That means it is a pure planned way which is on the foundation of the original spontaneous manner, skips the market and the planned manner compatible with the market, chooses directly to adapt "time economy" patterns. If we say that the social forms in the ""surpassing""surpassing"" basic choice suits China's national conditions, however, the exceeding choice in the other three aspects of conversion and its relationship with the social forms of the "wrong" type combination obviously goes far beyond the level of development of productive forces and isn't in line with the China's national conditions.

This is a profound background and the fundamental driving forces of our country's economy transition and economic reform since 1980s. When China's social and economic form presents the above "choice of super-""surpassing"" and "wrong combination", the social practice will be as follows: making every effort to promote a low level of social productive forces and the backward social production approaching to product economy and its resources plan and configuration. In particular, the "spoil things by excessive enthusiasm" in the "pull" and "on" has a clear political mandatory. It is obvious, during 20 years from 1958 to 1978, at least 13 years (mainly refers to a three-year "Great Leap Forward", ten years the "Cultural Revolution"), China involved into a very complex "political friction", and Politicization of micro-economic. To sum up, the Strategic arrangements which set political and class struggle as the focus of the party and government's work will inevitably watered down and distorted of the theme of economy development so as to cast a strong color for the product economy of the its resources plan and allocation. A country or a

nation's economy will inevitably collapse when the overwhelming majority of the people and micro-economic foundation are transformed into politics' slavery and fooled by politics. China's economy has not really stepped into taking economic construction as the core of the rail of planned economic development since it has been basically completed socialism transformation at the end of the year of 1957. In the next 20 years, non-economic social and political movement has made Chinese economy be on the verge of collapse. Until 1978, Chinese party convened the Third Plenary Session of the Eleventh, China has actually entered a new development orbit.

In 1978, Chinese party convened the Third Plenary Session of the Eleventh, the party's work focus was converted into economic construction. China has actually entered a development orbit of taking economic construction as the core task. China's socio-economic patterns began to emerge the "homing" of economic performance surface in production relations---the second round of economy conversion of new China. Chinese economy's "back" options began in 1979 includes the following three aspects: First, the economy patterns transferred from the economy product to the planned commodity economy, and then to a commodity economy. This regression has the following two characteristics: (1) It occurred accompanying with the leap and breakthrough of people's awareness. People's understanding of socialism has broken through the limitations of pure ownership, can not only accurately locate and grasp, from the national conditions, the primary stage of socialism of the pattern of Chinese society, but also recognize that the commodity economy is the insurmountable stage of development of human society, thereby "homing" to a more than 20 years of absence of the commodity economy stage which the Chinese economy patterns should be on. This shows that the "homing" mentioned in the above was carried out along with the correction of traditional error after understanding Marxist conversion theory of the socio-economic patterns in an accurate, science, and a comprehensive way. (2) It changed along with a shortage nature of China's economy. Before 1984, China's economy is a typical "triple shortage" economy which focuses on "number shortage" and includes the structure, the quality of the shortage. The economy pattern corresponding to the "triple shortage" economy is a typical product economy, the performance for the economy is production constraints, a seller's market and the number regulation of non-price, which featured by characteristics of a shortfall economy described by Kohl, the kind of non-Sandoval Las balance. After 1984, China's economy started moving forward to the quality and structure-based "double shortage" economy. In the end of 90's, China's economy has evolved into a typical "dual shortage" economy which centered "shortage of quality" as the core and included the shortage of structure. That means viewing it from the absolute number, the supply and demand keep basic balance, but the inadequate effective supply "high-quality low-cost" and its induced product problem of "leave, run, false, bad" has become a social focal point. Therefore the economy which adapted to this kind of "double shortage" economy is bound to change, converting from product economy to commodity economy, from the quantity or extensive growth to quality or intensive growth. With the traits of demand constraint different from product economy clearly, a buyer's market quality and price-control, it had the beginning of market equilibrium approximation. Second, the resource allocation shifted from planned economy to plan and market combination and then to market economy. This "regression" since 1979 has been carried out for three phases: the plan configuration from 1979 to 1984; the planned economy with a combination of market regulation (that is, the "dual track") stage from 1985 to 1992; the market economy-oriented stage from 1992 to now. Third, the micro-economic basis transformed from public ownership of state-owned and public-oriented form to a variety of ownerships forms and coexistence of a variety of economic sectors. The "homing" has been carried out mainly through several ways such as developing the private economy, promoting the reform of state-owned enterprises, growing the "three-capital enterprises" and township enterprises, etc.

Integrated, the above-mentioned three aspects of the transition by our economy, attributed to the fact "homing". That is "regression to amend" for "Beyond Choice" which is not in conformity with China's national conditions and "wrong combination" and "homing" to selection and combination of levels suitable for the development of productive forces. However, this "homing" is definitely not a simple "homing". Institutional Change has induced and mandatory one, it is clear that "'surpassing" "surpassing"-choice" and "wrong combination" of China's social and economic patterns from 1957 to 1978 is a typical result of political changes in mandatory; while China's economy's transition from 1979 till now is a typical induced result. The former is a complete revolution, with a simple, brutal character; the latter is a kind of reform, with a complexity of features such as progressive. If we further enlarge the above discussion, we can get analysis paradigm of our country's characteristic transition economy. As shown in Figure 1, if we only consider the two indicators dimension: the domain of resources allocation and time. China's economy growth can be divided into three phases till the mid-21st century: the phase of a planned economy, transition economy and market economy. Since 1978 China's social and economic development has been in the planning stage, as mandatory arrangements of the system, the scope of the visible hand or the area of government intervention is obviously greater than that of the invisible hand; the reform and opening-up and development of years from 1979 to 2020 is in transition economic period, the scope of the visible hand will become increasingly in terms of that of invisible hand, while the scope of the invisible hand and market allocation will be bigger and bigger.

Insert Figure 1 here

Insert Figure 2 here

At present, the curve of allocation of resources of the visible hand and invisible hand are becoming the domain near the point of intersection, the government and the market are at the equal status in the right to allocation of resources. After 2020, China will completely enter the market economy phase, government intervention has still played a role, but its scope will be even smaller. Therefore, the transformation of the economy with Chinese characteristics is in the process of formation accompanied by a constant growth of invisible hand, the continued narrow of the visible hand and the respective increase and reduction. But what should be drawn attention to is that we can neither always be negative to visible hand, nor can always praise the invisible hand, both areas have their advantages and failures, need to be made up by the other side. We should focus on "second-best" institutional arrangements and the order of the transition; should be stressed the environment's political or social support for reform; should pay attention to the role of history, also the path-dependence.

## 2. The characteristic growth path from "learning style" to "a combination of learning and creating style"

In the view of Schumpeter and Freeman, technological innovation ultimately obtain maximize profits being based on market demand including the course of the study, new product development and trial, production process and commercial processes. In essence, the concept not only includes technological innovation, but also surpasses technological innovation that has been related to technological innovation, management innovation, system innovation and market innovation, etc. It is innovative chain formed by a series of organic integration. If the innovation process is amplified, the internal logic of economy growth of a country or region can be got (Jin-Ming Wu, 2001). If economy growth is subject to the following basic functional analysis, namely:

$$Y = f(P, T, M, L, K, E, \dots) \quad (0)$$

Y is on behalf of economic growth; L: labor; K: capital; E: land; T: technological innovation; M: management innovation; P: institutional innovation. As shown in Figure 2, mechanism of economic growth under the conditions of the elements in the whole are: the system of innovation (P) is "engine 1", institutional innovation induced thinking of the liberation of (or "Renaissance") and cultural innovation, resulting in the Scientific Revolution and induced technological innovation (T), we call T as "engine 2" of economic growth; technological innovation transformed into industrial revolution or the industrial structure in the arrangements of "upper market" and system after innovation, we call it as first-class "accelerator" and "expansion" of economic growth. While the industrial revolution or the industrial structure conversion is bound to trigger a change of industrial organization, which leads to management revolution (M), we call it as second-class "accelerator" and "expander"; therefore management revolution bring about the rational flow and combination with the restructuring of basic economic factors (L, K, E), resulting in property rights, elements and the three major of market structure change and products and causes changes in the economy structure, optimization and upgrading, we call the third-class "accelerator" and "expansion", so as to promote economic growth; and in turn, economic growth promotes the improvement and change of the system and enter the next round of cycle. If this cycle goes smoothly, there is no interruption of "logic chain", the chain of economic growth is the longest at this time. Launched after the two engines, speeded up cycled with the "expansion" of three "accelerator", its multiplier effect is the largest. Economic growth steps into healthy, stable, efficient and sustainable development. However, if there is any discontinuity of "logic chain" in economic growth, the different consequences will occur depending on the link and length. If there is a long period interruption in "Engine 1" and a missing in "system foundation and innovation", in a closed economic system, it will lead to the generation difficulties and the weak role of ③, ④, ⑤ three "accelerators" and "expansion". Economic growth will be in the state of or stagnation and natural growth, the whole economic growth steps as a cochlear line ant; if a long period discontinuity is in "Engine 2" with lack of "technical progress and innovation". Therefore, in a closed economic operation, it would be difficult to form the first-class "accelerator" and "expander". The second, three-tier "accelerator" and "expansion" will be in the role of short-term phenomenon and weakening. Economic growth has appeared the fast and slow reduced-type or fluctuations growth. If there is a long period interruption in the first-class "accelerator" and "expansion" and the emergence of the industrial revolution or the stagnation of industrial conversion, then in a closed economy, although with a certain degree of economic growth, it will be difficult to achieve economy development of stability, health, coordination, let alone to grow by leaps and bounds. If there is a long period interruption in "engines2", there is serious economic stagnation and even retrogression in a closed economy and so on.

According to the above logic of economic growth, in the analysis and determination of a country's economic growth, the objective existence of the following conditions is needed to consider: that is, at the global level, or at analysis from the open economic system, the logic of economic growth has never been in a long-term uninterrupted links except the inevitable temporal or space-type (such as the world's first and second economic crisis, etc.). However, specific to a particular country or region, the single or multiple discontinuities from its first ①, ②, ③, ④ links is a common phenomenon. While, in an open economy or global integration process, these countries or regions will study, consciously or unconsciously, transplant or absorb, using others' "engine", "accelerator" and "expansion" (of course there is a price) to set up "logic chain" which has been or will be interrupted, so that the continuity of economic growth

can be kept. Therefore, based on the different sources of "two engines" and the first-class "accelerator" and "expansion", we can divide economic growth into three types: First, the economic growth of self-provided "two-stage engine" and the first-class "accelerator" and "expansion", that is, "original-type growth." The type of function analysis is as following:

$$Y1 = f (Li, Ki, Ei, T1, M1, P1) \quad (i = 1,2, \dots, n) \dots \quad (1)$$

Y1 stands for originality economic growth; Li: workers; Ki: capital; Ei: land; T1: their technological innovation; M1: their management innovation; P1: the national system of innovation. From (1)-type, such economic growth is a typical original-style economic growth can be seen. It means that the countries and regions grown in accordance with such modes can use not only their own workers, capital and land and other economic factors, but also the tangible colony and intangible means of market competition to allocate other countries' even the world's labor, land and monetary resources. Nevertheless, the systems, technology and management are their original. For example, Britain, in the 19th century, has been able to become the only first country in the world because the institutional innovation and its induced technological revolution at the first time, the industrial revolution and management revolution occurred in the United Kingdom. While the United States in the year after 1890, the 20th century has been able to become a leader in economic growth also because of institutional innovation and the induced second and third technological revolution, which led to the industrial revolution, management by the original United States. Obviously, this economic growth which includes technology, system and management self-innovation is an original type of economic growth. The characteristics of marginal efficiency increase which belongs to technology, management, systems and other factors determined the leading position of the first country. In additional, it determined the development gap between the first countries, the post-developing countries and the developing countries. Second, the economic growth of transplants of the original States "2 engines" in a key part or in whole, that is, "learning-type growth." The type of function analysis is as following:

$$Y2 = f (Li, Ki, Ei, T1, M1, P1) \dots \quad (2)$$

Y2 represents economic growth of learning style; Li, Ki, Ei, T1, M1, P1 has the same meaning with (1). However, the post advantages of the developing and post-developing countries are very significant. They can take full advantages of the "spillover" effect of original technical, managerial and institutional factors to promote national economic development. For many post-developing countries as well as developing countries, due to the lack of technology, the original system, they only to reform and open up, introduce, learn, absorb and make use of original technology, management and institution, combining with own national conditions to contribute to economic growth. This is the so-called learning-style growth. Examples of this are the post-war Japan and Asia's "four little dragons" .They all followed the path of learning-style growth: that is through absorbing advanced technology, management and systems of the first country with the organic integration of its own national conditions to enhance their total factor productivity to promote economic development.

Third, own originality of key part of "engine 1", the economic growth learned and introduced from other countries whole or partially, namely the "characteristic growth." The type of function analysis is as following:

$$Y3 = f (Li, Ki, Ei, T3 + T1, M3 + M1, P3 + P1) \rightarrow f [Li, Ki, Ei, g (T, M, P)] \dots \quad (3)$$

$$Y_3=f (L_i, K_i, E_i, T_3+T_1, M_3+M_1, P_3+P_1) \rightarrow f [L_i, K_i, E_i, g (T, M, P)]\dots \quad (3)$$

Y3 is on behalf of characteristic economic growth; Li, Ki, Ei, T1, M1, P1 has the same meaning with (1); M3, T3, P3, are respectively on behalf of their technology, management and systems; T3 + T1, M3 + M1, P3 + P1 are each on behalf of their respective countries in terms of technology, management, system of "graft." In the characteristic model of economic growth, the fundamental characteristics are in two aspects:

The first is the "grafting" characteristics of the system, management, technology. To analyze from the level of system and management (ie, "P1 + P3" and "M1 + M3"), for example, China has its own characteristics, originality and the socio-political system dominated by public ownership and so on the fundamental economic system such as system-level (P3), also have their own original ideas and methods of management (M3), such as "The Art of War" and so on. However, after the reform and opening up, China continued to introduce and absorb advanced economic system (P1) of Europe and the United States, such as finance "tax system", the commercial banking system under the control of the central bank, modern property rights system and the enterprise system, the financial accounting system, business system ( that is, "WTO"), at the same time to absorb Western management theory, such as "X Theory", "Y Theory ", "Z Theory", "Theory of super-Y", "Contingency Theory" and the modern management methods, etc., China has basically formed the organic integration of fundamental level (P3) and management thinking (M3) with the original system and the characteristics as well as the original and unique aspects of specific economic system (P1) and management theory and method level (M1) of advanced countries. Of course, Instead of way to take full transplant of learning-type growing countries, our country's introduction and absorption in level of system combined the specific economic systems with practice in China, namely, with the biological significance of the "grafting" and "hybrid" characteristics. To examine

from a technical level (that is, "T1 + T3"): China has its own original and unique plant and animal species and species of Culture Technology, as well as wine, tea, cooking, fireworks, ceramics processing, silk textiles, Chinese medicine such as a large number of traditional techniques and technology, there are a number of their own intellectual property rights of the modern industrial manufacturing technology and process. We introduce and absorb advanced technology and complete sets of equipment independently and actively from advanced countries and regions after reform and opening up. According to statistics, during the 20 years from 1979 to 1998, China has imported more than 28,000 technologies from abroad, the contract amounted to 111.379 billion U.S. dollars. Basically formed the organic integration at various levels of their own original traditional technologies (T3) and the modern advanced technology (T1) of advanced countries: their own original technologies-oriented in the first industrial level; the all-state combination of independent technology and the introduction of the technology in the level of second light industry; the introduction of technology-based in the level of second heavy industry; Chinese characteristics technology-based in the level of the third traditional service industries; the West original technologies-directed in the IT services level of tertiary industry.

The second is the transformation characteristics of economic growth which is from "grafting-type" economic growth to the original-style economic growth. Compared with the would-be "grafting" and "grafting-type" economic growth is also a kind of economy transition. For example, China's "socialism market economy with Chinese characteristics" is a kind of transition economy. This is the first round of economic restructuring. The second round of economic restructuring is on this basis and the whole process of growth stepping into the original style. That is the process from function:  $Y3 = f(Li, Ki, Ei, T1 + T3, M1 + M3, P1 + P3)$  to function  $Y3 = f[Li, Ki, Ei, g(T, M, P)]$ . Obviously, in the latter function model, from  $(T1 + T3, M1 + M3, P1 + P3)$  to  $g(T, M, P)$ , it is a summary the introduction of the developing countries in technical, managerial and institutional factors "----grafting" "----the second innovation" "----original process. This process also reflects the process of mutual shift and transformation in technology, management and system between developing countries and first countries as well as reflecting the discipline of quality improvement of the economy development.

Third, in the feature-type growth model, the national industrial policies tend to the whole industry chain and all the innovative ways and try all the efforts to promote the organic integration of the three types of technology innovative ways. However, it is under normal circumstances. Due to the more tendency of learning style growth, most of the national industrial policies tend to the related enterprises with industry "supporting links" and the "leading enterprises" as well as the new innovation model of introducing and promoting in large scale innovation and integrated innovation being generally based on the "catch-up, scientific bounds" model of innovation and development. In the latter stage of development, more growths tend to original style, the national industrial policy in general tends to "crucial links" and "leading link" of the industry and to promote original innovation and the integrated innovation of "leading enterprises" of the core enterprises in large scale.

### 3. The characteristics growth model from the resource dependence, technology dependence to self-innovation

To analyze from the globe, economic growth has three basic types which are dependent growth of resources, technology dependent growth and innovative growth. Of which: (1) resource-dependent growth is mainly distributed in the Gulf region, and its basic features are two fold: First, the entirely dependence on the resources type, quantity and quality provided by the nature, the lack of knowledge, technology and talent, the obviously thinking of self-isolation. Second, a high proportion of resource-based industries, small degree of high processing industrial, industries are commonly in the low-end segments of the industrial chain, low value-added and form the depletion of resources along with resources "industry empty". The third is the co-existence of high energy consumption, high pollution and high security risks. Take the way of traditional development of the "first contamination and post-treatment" (2) dependent growth of technology are mainly in Latin America countries, and its basic characteristics are three fold: First, there is no national and regional product technology, process technology and tooling equipment. The required innovation is a typical entering-type innovation that is to promote the innovation of its growth by the importation of developed countries and regions, mainly through "transnational corporations". Second, economic growth is in the absence of independence and has a high external dependence because economic growth is promoted mainly through innovation-imported type and the way of combination with its own of resources. Third, being associated with the importation of the means of innovation, it is bound to take all types of risk transfer of the developed countries, regions and enterprises, in particular, to bear in order to carry out malicious injury from developed countries and regions for the interests of own country and region. Therefore, the growth has a high-risk nature. The country that took this model is obviously in the "rope walk." (3) The growth of innovative mainly includes the United States, Britain, Germany, Japan and other 20 countries and regions. The basic features are three fold:

First, the country's strategic resources are generally not the exploitation. The global resources are to be configured mainly by using capital operation and industry transfer mode (in particular the transfer of resource-intensive and labor-intensive industries). Second, economic development and social progress are promoted mainly through self-innovation. Third, the growth is through the control of "crucial industry" and "leading industry" link of high-tech

industries and advanced manufacturing sector. The control capability to the industry brand, intellectual property and standards is very strong and make it the significant core competitiveness in the global industry. In addition to the above basic models, the majority of countries and regions is the basic pattern of these three variants or combination of each two. For example, Chinese economic growth has been the case since New China was established 60 years ago. In the years of 1949-1978, China took the model of combining resources reliance with independent innovation. While in the years of 1979-2005, China took the model of combining resources dependence with technology reliance and fell into the fantasy of "market for technology" for a long period. Chinese has begun to enter the basic mode of the third category of economic growth since the National Congress of the party was convened.

The pattern our country is chosen growing up as said or narrated above is really not one kind of subjective and groundless conclusion result, but is our country shortage economy-based reality and a realistic choice of Hirschman's "non-balanced development model". The Economist Hirschman has brought forward the thought of non-balanced

Insert Figure 3 here

development on the basis of "pressure theory" about development of infrastructure construction. he has thought that economy development should keep stronger active strength, estate building should put imbalance increasing strategy into practice, direct producing branch should be given priority to develop through pooling funds, economy development should make use of direct producing to develop in advance the increased income and "Bottleneck" pressure to expand investment in infrastructure construction, thereby leading to develop infrastructure construction. As shown in Figure 3, vertical axis said the pace of development or growth; horizontal axis represents time, that is, the stage of economic development; bold lines said infrastructure (social overhead capital) of the development curve; thin solid line means the direct productive activities (social direct capital) development curve. According to Hirschman model of non-balanced development and to integrate with the reality of our situation, we can divide economic growth into three stages by following supply and demand characteristics of social goods: the stage of shortage of personal belongings, the stage of shortage of public goods and social goods, the stage of supply and demand balance of social goods. Each stage adapting to the background and the principal contradiction of society has a special mode of economic growth.

1) The union pattern of resource dependence and independent innovation in the year from 1952 to 1978. As shown in Figure 3, in the stage of private article shortage of OP line segment, society article supply-demand relations show the following essential features: (1) Three kinds of shortage which are private article supplies shortage, public article supplies shortage and the matching shortage between private articles and public article exist side by side at the same time. (2) However, the main contradiction in social development is the shortage of supply of private goods. Therefore, people are more concerned about the solution to the shortage of personal belongings. (3) In the early phase of the shortage of personal belongings (from 1952 to the mid-80's), the nature of the general performance of the shortage presented as a "triple" shortage in quantity (total) in quality as well as in structure. They refer to the short supply of number, the high-quality and low-cost products as well as the single species of the product structure, the imbalances of geographic distribution and industrial structure. When the "triple" shortage of the personal effects, the image characteristics is two fold: First, "ticket supply" is universal. In order to achieve a relative balance, under the premise of very limited supply of goods, the distribution was made only by "food stamps", "cloth votes", "oil votes" and so on the various types of ticket. Second, even if the ticket was obtained, the "on time or timely supply" could not be achieved because there were the phenomenon of lining up waiting and seeking for alternatives everywhere. It is precisely because of this stage is the main contradiction in the material life of the people's growing need for personal items with the contradiction between supply shortage, the development of directly productive activities take precedence over the development of social overhead capital. However, due to the extreme low level of development of productivity, the poor economy, poor technology infrastructure, the unformed industrial system, the lack of capital formation, we could only rely on the use of resources-based economic growth model. And at that time, China's population was less than 50 million. The volume of resources per capita is more sufficient. The capacity of environment to dilute industry pollution was very great. So it was feasible to take resource-dependent economic growth model. However, taking into account of China's total closure of capitalist world as well as the rupture of relations with the Soviet Union, we had to choose the self-reliant at that time is what we said self-innovation today.

The major innovation achievements caused proud in the world today mainly refers to "two bombs and one satellite" in this period. Therefore, at this stage, China's economic growth and resource dependence model is a combination of self-innovation model. This model is the choice suited to China's national conditions. However, the implementation of this strategy is a departure from the path of the track of the economy and embarked on the road of political campaign replacing the economic movement and class struggle replacing the production struggle. So we paid a heavy price. This is the first should learn.

2) The combination of resources dependence and technology attachment in the years of 1979-2005. From P-to-M it is an important historical period of China's reform and opening up. The basic characteristics in this period are: (1) like the characteristics of OP line, three shortages existed at the same time. The main contradiction of social development was



still the contradiction between the needs of increasing material and cultural the shortage of personal items supplies. (2) As far as the nature of the shortage concerned, the shortage at this period had the performance of "double" shortage. It referred to the basic balance of supply in quantity but there was short supply in quality and structure. The appearance of features at this time is twofold: first, the market flooded with "fake" products. Second, driven by the "fake" products' enter the market, the vicious competition characterized by "price reduction" was from an industry to another one, genuine or high-quality goods was forced into the area of low-profit goods even loss. (3) The total population in China is twice that in 1952, more than one billion people, the volume of per capita resources reduced significantly, China has entered the countries of a very small amount of per capita resources. (4) National industry and national economic system was set up basically. (5) From the start point of reform of alliance and production Contract responsibility system, China pushed forward a comprehensive reform and opening up. Urban reforms, state-owned enterprise reform, education reform, health care reform has been continued to roll out. In general, the most accurate but also the largest characteristics at this stage is the reform and opening up, the biggest achievement is the establishment of the line, principles and policies of the reform and opening up. In addition, a closed China had changed into a fully open country through reform. However, a profound self-examination and lesson to be summed up was left about how to implement the reform and opening-up mode in order to promote the development of the choice we should have. Reason in terms of to enter the countries the resources-dependent economic growth mode could not continue to be used in the country whose per capita resource was extremely poor. As a result, we not only continued to use but also approached towards extreme in accordance with the policy of "water flow fast together with five wheels", this is one respect of the reason. Second, in the process of reform and opening-up, we can not put hopes in Europe and the United States in particular for a very large scale of the country and the nation. If we put the hopes in others, it will be tantamount to "throwing bun to a dog". Therefore, "market for technology" objectively brought us benefits for economic development especially to the southeast coast area while actually it made our country lose the voice and the initiative. The industry "crucial links" and "leading links" is increasingly being controlled by developed countries or regions, China has been crowded out of the global high-end industry step by step. So we should draw the biggest lesson that the real high-tech market can not be changed with money but rely on our own during this period.

3) The exploration of innovative growth mode in the years of 2006-2030. When the socio-economic development has stepped into the stage of the shortage of public goods (MN in Figure 3 above), its basic characteristics are: (1) the shortage of public goods has risen as the main contradiction in society and has affected social stability and development as well as has caused the concern of the entire society. (2) Personal items of supply and demand are basically balanced, but there are two major issues apparently: first, effective demand of private goods is insufficient affected by shortage of public goods supply. Second, "fake" and shoddy products in private items and its induced vicious competition characterized by "price reduction" has been fundamentally changed and caused the lack of effective supply of personal belongings as well. In the influence of these two areas, private capital though also considering entering the provision field of public goods. It is only the idea and conduct of private enterprise with greater capital strength and will not be extended to all private enterprises. In this case, the state-owned enterprises both as government's the visible and invisible hand will be able to take full advantage of rapid development. (3) The characteristics of this period are four: First, the provision of public goods is of poor quality service and high charges. Second, consumers of public goods are "crowded" state. Third, universal service is difficult to achieve. Fourth, the Government rent-seeking is in general and "commercial bribery" is a serious problem in the field of public goods which leads to "failure of regulation." Therefore, in the stage of the shortage of public goods, despite the provision of private goods can not be very abundant, due to the shortage of public goods has risen to the principal contradiction, so indirectly or the provision of public goods than is far more important than the direct production activities and its items provision. In order to alleviate this contradiction, giving priority to the development of social overhead capital, infrastructure construction has become the preferred strategy. If it is said that the shortage of personal belongings of the most critical stage of innovation is the technological innovation, the shortage of public goods in the stage of innovation is the most important institutional innovation. Therefore, under the guidance of scientific development concept of emancipation of the third round of the debate will start by focusing on innovation of institutional mechanisms and transition of development mode. If the first round of ideological emancipation got rid of the false imprisonment of two "whatevers", and established the ideological line of seeking truth from facts, the second round emancipation would break through the constraints of the name "Society" and "capital", and set the establishment of the basic Program of socialism market economy. In that case, the liberation of the third round of big ideas is the great concept liberation which is beyond the development of traditional thinking. This liberation will be a major ideological breakthrough of restraint of "resource dependence" and "technology dependence", the traditional development concept and model of and will fully establish the path of "scientific development, innovation and development". The policy "building an innovation-oriented country" established by the Party's sixteenth National Congress and following the road of independent innovation is a rational choice to adapt to this context. On three types of innovative ways proposed by the national medium and long-term technology development plan, the national level should emphasize on original innovation. As the development of a country or region concerned, taking the road of innovative growth implies necessarily economic development strategy is an independent innovation. Independent innovation strategy refers to innovation strategy which set independent innovation as the basic goal. It means a technology innovation strategy which can obtain core technology or breakthrough in concept, overcome technology difficulty, rely on their own ability to promote and complete the follow-up aspect of innovation on this basis, market a

new product or take the lead in the use of new technology, complete the commercialization of scientific and technological achievements to achieve competitive advantage and the monopoly profits for the desired goal through their own efforts and explore. At the same time, in the face of the growing supply shortage of resources, we should focus a resource-saving and environment-friendly society construction, shift traditional industrialization and urbanization development model completely, take a path of new industrialization, new urbanization and the new rural development. China is now in this period of transition and practice.

The growth of innovative models which will appear after 2031. When a country or region's social goods enter the stage of the supply and demand balance, the socio-economic development will emerge the following characteristics: (1) principal contradiction of socio-economic development has again transformed into and the resource constraint problem in the socio-economic development. The world, especially China's new round of the shortage has already begun. The three major resources of the supply shortage will persist for a long: First, the shortage of land resources and water resources has not only led to a shortage of supply of agricultural products, but also resulted in shortages of using land and water for urban construction, industrial and commercial. Second, the shortage of strategic energy resources began to lead to supply tension of coal, electricity, oil, gas and transport. Third, the shortage of mineral resources and industrial raw materials has led to its market price rising.

By the impact of the three resources supply shortages, the provision shortage of private goods and public goods will be kept for a long term. Particularly the shortage of personal belongings is a typical type of shortage of resource constraints. Though the supply of education is in shortage, health care, social security and other public goods is a shortage of input constraint. The supply shortage of "food security", network-based infrastructure is still a typical type of shortage of the resource constraints. As a very large scale country, three kinds of resource mentioned above, our country's actual availability of resources is getting smaller and smaller. The world is also bound to take the pressure of quantity-limited and high price in the above-mentioned three resources areas of our country. Therefore, we must recognize clearly that a supply shortage of goods caused by the strategic resources and energy shortage will exist for a long time. (2) Personal belongings' supply and demand achieved basic balance. The supply of fake and shoddy goods and vicious competition has been in the effective inhibition. (3) The supply and demand of public goods reached basic balance. The general principles of service and lower costs have been effectively carried out. (4) The supply and demand between private goods and public goods achieved the basic balance. A good matching has formed in quantity, structure and quality between each other. In order to achieve this match, the forms and methods of combination of "private and public" featured by public-private partnership as the main features of will become the main mode of infrastructure items' delivery. (5) Infrastructure equipments have been well-developed. The upgrading basic conditions of economic structure have been met. If excess resources continues for the development of social indirect capital, economic efficiency and social significance has been less clear and important than that in the former period. From that point onwards, the community needs more resources to develop direct production activities and achieve high grade structure. At this point, China's economic development will further promote transformation of economic development mode and growth space: First, land-based economic development has basically stepped into the track of scientific development. Second, the economic development has started to enter the co-exist development of the land-based, sea-based and space-based economy. China is a large country to rise, if the vision just stare at the land, it will go fast to the limit. The southeast coastal provinces and regions' focus should be transferred to the marine economy. The first 30 years of reform and opening up, on the industrialization and urbanization of southeast coast has been achieved to some extent. It is undesirable to rely only on their own land-based economic development, especially to hope that the transfer of resources in the central and western regions can maintain its economic development and structural transformation. We should develop marine economy to promote the adjustment of coastal structure, to realize the economy transition of co-exist development of terrene, marine and space. In another word, the focus of scientific development and innovation development will be adjusted to the ocean, land and space. The economic growth will get full access to innovation growth model.

#### 4. Conclusion

China's economic growth characteristics Over the past 60 years appeared in three respects: First, the background of characteristic of transition economy which is based on the "second best" and is featured by "surpassing" and "homing" option, socio-economic patterns in "surpassing" of 1952-1978 and the socio-economic form of "homing" in 1979. Second, the gradual characteristic growth path from the "learning style" to "a combination of learning and innovation". The third one is the characteristic growth model being obvious in phases from resource dependence, technology dependence to self-innovation. The combination model of resources dependence and independent innovation in 1952-1978, the combination pattern of resources dependency, technology dependency in 1979-2005 and the innovative growth model after the Party's National Congress.

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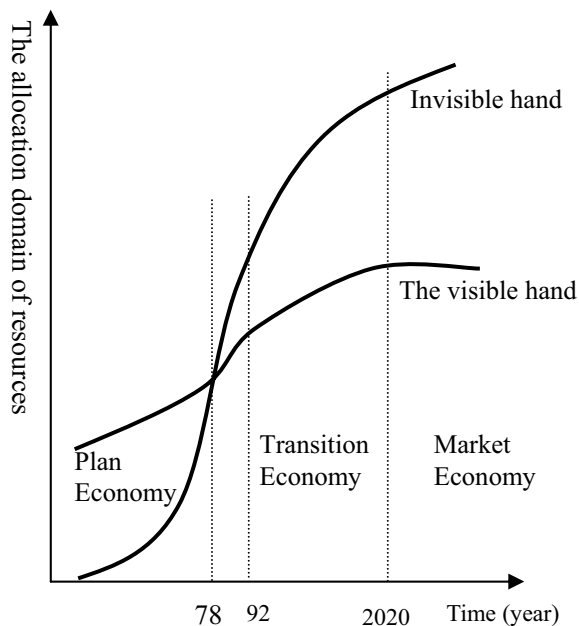


Figure 1. The paradigm of Chinese characteristics transition economy

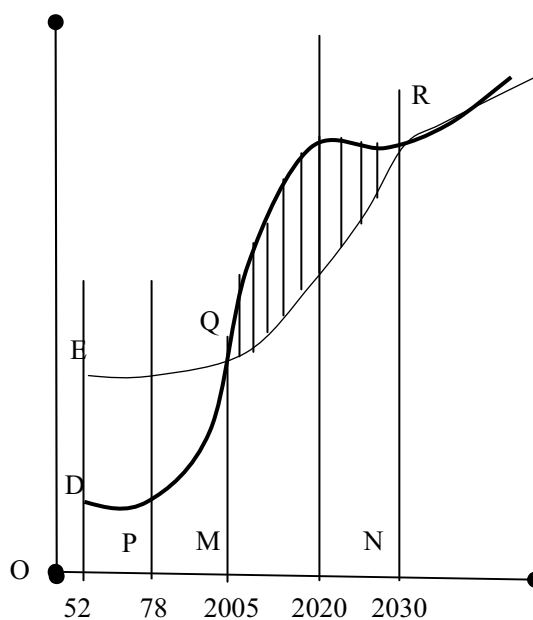


Figure 2. The diagram of evolution of the relationship between economic growth and Shortage nature

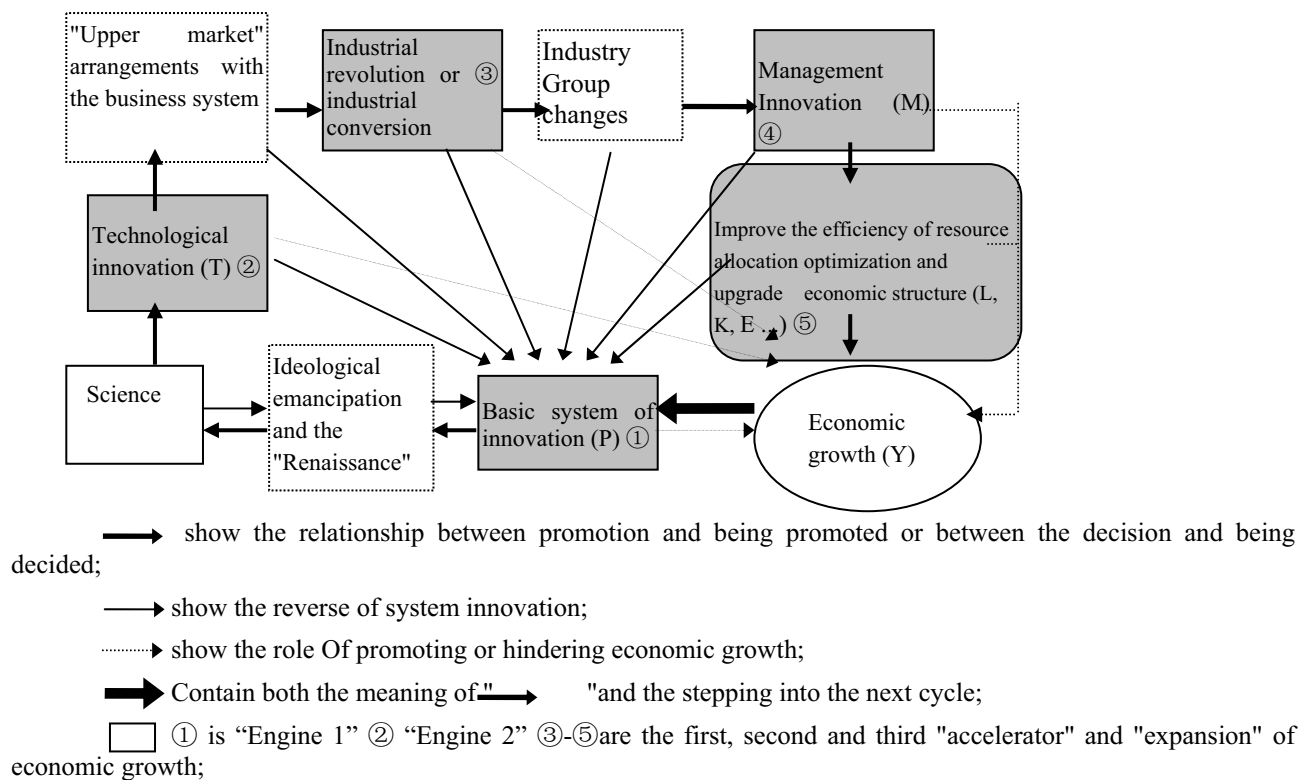


Figure 3. Temporal logic of economic growth-- the mechanism of elements