

# The View on the Three Major Problems and Solutions to the Deepening of State-Owned Enterprises Reform

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## 1. Competitive profession: continuing enterprises and the solutions

Since the 1990s, state-owned enterprises in competitive profession generally take a separation way that "hang difficult problems up" making the key business and the relevant good assets peel off, reorganize and get listed on the stock market. The listing part among them is known as continuing enterprises. The problem of continuing enterprises, to a great extent, it is a not thorough result of SOE reform. Because market system is unripe and the supervisory system is imperfect, in a situation that their reorganized and reformed system has been fulfilled, a considerable amount of state-owned enterprises adopt discrete scheme of reforming system, isolating a large amount of non-core business, low commercial ability assets and redundant staff from the continuing enterprises to construct "good assets" which can reach the requirements of listing on the stock market. This kind of method has met demand at one o'clock of smooth listing and financing of state-owned enterprise, but has failed to solve the problem fundamentally, so as to make the contradiction must be faced straightly during the deepening of the state-owned enterprise reform concentrated in the continuing enterprises. Concretely speaking, the current primal problems which the continuing enterprises face are: first the resource key element is bad. Continuing enterprises have common existence condition of bad assets, many redundant staff and the heavy managing bears. Not only assets scale and quality are inferior to the host job obviously, but also the personnel exists of the retiring personnel, laid-off workers and redundant staff in the reformed enterprises are more than needed. Therefore, it leads to the low per capita assets and continuing ability in motion and doing business is insufficient. Second, the business adherence nature is strong. It is mainly assist business or subsidiary business which grow up under peculiar society political background and economy condition including: (1) auxiliary business that demands higher special field technical ability; (2) auxiliary business that has certain special field technology contents, but concentrated labor force; (3) low special field technology contents, relatively poor profitability "tertiary industry" and diversification manage and service and so on. The businesses originate from the business with host listed company and their viability is weak. Third, management policy and management system is messy. Major state-owned enterprises are short of sufficient cognitions on significance and urgency of norm administration and accelerating reform of the continuing enterprises. It is difficult to organically combine the development of host listed company and the reforms of continuous enterprises together. They especially warp the relationship of listed company and the continuing enterprises, add chops and changes of the administration on the continuing enterprises with a short of a policy continuity. A few conglomerates or "the parent company", for the sake of self-interest and development, invade and occupy the fund of the listed company being held by passing various ways such as the connecting business, security, debit and credit and so on.

As "the continuing enterprise" is the gradual product of reform which is based on the "second best option" of a state-owned enterprises in countries with economies in transition. Therefore, there is little system study in foreign countries except a small amount domestic of research [1]. However, the transformation of economic theory, corporate merger and reorganization theory, control economic theory provides an important theory for the study of "the continuing enterprise evolution" and derivative cause. The most appropriate theory to manage the continuing enterprise is Business Process Reengineering Theory. Mike Hammer • (M • Hammer) Dr set IBM, Duke Power, Deere as a case, came up with in 1993 the concept of business recycling and business processes whose core idea is that only recycling business processes can significantly improve the business performance and improve service quality. New concept of processes regards a series of things which link to each other, affect each other, have the relationship of reason and cause have inputs and outputs as a process, which can be parallel and cross-flow, can also be extended to enterprises. New concept of processes, while, make value creation, cost savings, product and service development all under the light on the process, thus releasing the potential of

unlimited business. Business Process Reengineering is also translated as "re-engineering" (Reengineering). It means that companies, in order to be able to adapt to the new competitive environment must abandon the practice which has become the business model and working methods, redesign workflow-centric management, administration and mode of operation. According to the definition of Mike Hammer • (M • Hammer) and James • Ciampi (J • Champy), it defined as "to improve cost, quality, service, speed of operation of a modern enterprise benchmarks rapidly, to carry out a fundamental rethinking and radical reform on the work processes (business process) ", that is, " change from scratch, re-design. "

According to "smile curve" of Zhenrong shi, affected by the planned economy and the traditional concept that "fertilizer do not flow outsiders' fields", China's state-owned enterprises mainly include the multi-links from A to G and some aspects from A ' to G ', "small and full ", "large and full" enterprises. However, when listing, one or more aspects of the packaging advantages are chosen from A to G to list the stock market, the other segments are in existence of the remaining enterprises. From the theory of Business Process Reengineering, we believe that: There can be two ways which are business recycling based on the enterprise value chain and industry recycling based on industry value chain. The former is a fundamental business transformation process, namely, Business Process Reengineering; the latter is based on the industry divisibility and modular organization of the industry's fundamental transformation, that is, the recycling industry. Industry recycling is the prerequisite and basis for business recycling. Business recycling is the reflection and deepening of industry recycling. They interact with each other.

According to this line of thought, consideration might be given to restructure the business of the remaining enterprises and the main business of listed companies based on industry value chain. As shown in Figure 1, on one hand, through the re-allocation of resources for the survival enterprises, we form a new core business and the coordinated development of the business section. In accordance with the requirements for the "organizational integration, the integration of business strategy, portfolio integration, system integration", we can plan the development of enterprise integration of primary and secondary industry and can improve the enterprise assets restructuring, structural adjustment and mechanism innovation creating conditions for establishing modern enterprise system and improving overall market on the basis of Equity Carve-Outs. On the other hand, we can carry out fundamental transformation on industrial organization based on divisibility and modular of industry, which is recycling of promoting the industry. According to the research of related scholars, industries' divisibility and modular can be reflected in the breakdown of industry value chain. For example, high-tech industries and advanced manufacturing industry value chain can be divided into general aspects of industry leading, industry cores and industry supporting links. Correspondingly, three types of enterprises, a "leading enterprises," "core business" and "associated enterprises" appear. (Jin-Ming Wu, etc., 2007).

Companies recycling ways are different according to the different links of the survival enterprises and the main business listed company: (1) If the main business listed companies are in industry leading or in industry core, while the survival enterprises in the industry core or in the industry leading, mergers and acquisitions can be taken to conduct business realignment recycling; (2) If the main business listed companies are in leading industries and in core industries, while the survival enterprises are in supporting link, you can take a strategic alliance, outsourcing or virtual operating lease approach to conduct Business Process Reengineering; (3) If the main business listed companies are in the industry supporting links, while the survival enterprises are in industry leading or in industry core, desirable way of mergers and acquisitions business realignment recycling should be even more taken. The reason why such considerations, a key reason for this is that in a complete industry chain, the links in the industry leading "enterprises" is a brand-oriented enterprises, marketing networks and channels for control enterprises, it changes society demand into industry demand and determines the size of the industrial chain; the core enterprise in industry core link in general is research and development enterprises, knowledge and technology-intensive enterprises, Patents, intellectual property and standards for control-oriented enterprises. It changes the scientific innovation into process technology and product innovation, and promotes the upgrades of entire industry chain and new-generation of products, determines the quality level of the industry chain. The two links determine the competitive ability of the whole industry and the level of competition respectively from the point of view of quantity and quality. If the state-owned listed companies do not control these two links, the enterprises will lack competitive ability and will have no sustainability. Regardless of the perspective from which to analyze, we believe that the key to govern the survival enterprises is based on enterprise value chains and industry value chains, promoting businesses recycling and industrial recycling.

## **2. Monopoly industries: problems and solutions of "Marginal enterprise"**

In recent years, with the state-owned enterprise reform deepening into monopoly industries, a very strange phenomenon appeared prevalently. The phenomenon is that a lot of companies are funded by the state-owned

parent company, collective legal person shares held by the within unit holders, on behalf of trade unions shareholders, and regarded as employees sharing the company's well-being. The funds of collective legal person shares are from the funds raised by all units and staff. At the same time, many company's managers and employees come from the parent company, the company chairman is generally the vice president of the parent company who is in charge of operations, the company managers are all the mid-level managers ever. Some staff are formed by the transfer from the parent company. Some Professionals are recruitment within the system of the enterprise except a small number of staff are the community-oriented recruitment. They have a dual identity, both the employees of private enterprises and state-owned enterprises. The identity arrangements set no competitive pressure on the operators and the staff. The company's "star business" is fully consistent with the advantaged business of the parent company. The reason is that the parent enterprise supports the development of the company through the transfer of advantaged assets and advantaged business, which fully reflects the parent's internal control and the characteristics of the pursuit of local welfare. The company's development, neither relies on their own ability, nor bases on the improvement of so-called Pareto but is the result that the parent supports under the cost of damaging the entire social welfare. Obviously this result can only be the beneficiaries of the internal parent, of course, also including the operator and employees of the business.

Despite the extent, the frequency and the expression form of above-mentioned phenomenon emerged in railway, civil aviation, electricity and other monopoly industries is not exactly the same, the essential meaning is basically the same, focusing on the purpose of enhancing local benefits of "insider" interest groups, which was set up by the "insider" of the mother group. The main capital, the core business personnel and technology derived from the mother in whole or in part. Although it was established by law, a key element of its development has relied on the support of internal policies and stakeholders' business. It although has independent accounts, the operators do not have complete control over the remainder. This phenomenon in the traditional sense is not a parasitic phenomenon, a more formal institutional arrangements rather than national results. This phenomenon was known by the scholars as "insider control" and "externalized" "marginal enterprises" phenomenon (WU Jin-ming, Luo Tao, 2002, 2006). "Marginal business" is the enterprise which set the purpose of enhancing the local benefits of "insider" interest groups, relied on its monopoly status and incumbent advantages by the "insiders" of the mother. It was established by using incomplete information and asymmetric outside the mother body by law, whose main capital, the core business personnel and technology in whole or in part, derived from the mother, relying on the support of mother's internal policies and stakeholders business. The operators do not have complete control over the remaining business. Its basic characteristics are: (1) it was derived from a particular parent - the state-owned enterprises, which provide, the infrastructure items, and government departments, etc.; (2) the property rights are highly concentrated in the mother's internal people - all business owners, shareholders, affiliates, the competent authorities government officials and other stakeholders, but operators have always been the dominant interest groups; (3) the operator does not have complete control over the remainder - Residual control of enterprises and corporate residual claim are the arrangements of the "insider interest groups" for the residual mother, the operators do not have complete control over the remainder; (4) the advantageous business is closely linked with the mother - the main business capital (or core assets), the core of the operating personnel, the key technology and the main advantageous business, etc. are originated and derived from the mother, and the formation of equity capital, dedicated assets, human capital and the advantageous business are closely related; (5) the allocation of resources are away from the Pareto state - businesses are not carried out by the criterion of profits and value creation, but rely too much on external resources such as the power support and the relationship resources, have the full enjoyment of the "economic rent" brought about by unfair competition; (6) the governance mode is marginal - not entirely according to market-oriented governance manner, not entirely in accordance with the operation of an integrated governance; but it seems to have both side of the operation of the market, and the integration of the operation. It is between the market-oriented of operation mode and integration operation mode, between the "fringe" of the both. According to the enterprises border and corporate governance defined by the transaction costs, when the "transaction costs" is more than "the cost of enterprises' control and management," the enterprise should take over the counterpart and adopt an integrated corporate governance model in order to enlarge the borders; when the "transaction costs" is less than "the cost of enterprises' control and management", the enterprises should adopt market-oriented mode of operation in order to maintain or reduce the corporate boundaries; only when the "transaction costs" equals to "the cost of enterprises' control and management", the enterprise boundaries are optimal, the enterprises can choose either of the two governance ways. The marginal nature of marginal enterprises is the companies state between the two standards which is a non-standardized, deviated from the original status.

From the actual situation, the existence and development of the "marginal enterprises" has led to serious harm: (1) the "marginal enterprises" made "internal control" legitimate, and so "Internal Control" means has become more

subtle. It brought about more deceptive to society under the premise of the asymmetric, incomprehensive, and untrue information and the increase the difficulty and cost of making and implementing the national industrial policy; (2) the "marginal enterprises" can achieve the purpose of improving the local benefits of internal interest groups, but reduce the welfare of the whole society. This, in turn, includes three aspects: First, the advantageous assets of the mother group sell low-cost to the "marginal enterprise" while the inferior assets of "marginal enterprises" sell high-value to the mother group, which results in the loss and the deterioration of state-owned parent's assets; Second the low-cost, highly profitable business or part was transferred to the "marginal enterprises" in order to increase local welfare and to reduce maternal overall profitability level and well-being; Third, the "marginal enterprises" can prevent the manifestation of other potential entrants from entering and make use of their related internal policies advantages to hinder artificially the fair, just and reasonable competition in the market. So that the allocation of resources has the emergence of new non-administrative distortions. It must be governed. If we say that China's gradual reform - reform that is first started at the outsider and protect a temporary interests of insiders to reduce the resistance to the economic transition; when the reform has reached a certain stage, the internal interests and reform arise severe contradictions, re-enacted the new rules to make internal external, until the last to crowd all internals out (Yuan zhigang, 1997) - If this line of thought is correct, it is time to make internal people external and crowd them out.

To be the same with "the remaining enterprise", "the marginal enterprise" is also the product of evolution reform in the switch economical country. Foreign countries still lacked study on the derivation and the evolved question of "marginal enterprise". However, there are many related research such as the switch economic theory, the benefit counterparts theory, the accurate market network organization theory and "the ultra property right theory" and so on. However, as far as government marginal enterprise the most suitable theory is "ultra property right theory" of Dr. Shaojun Liu in Meader Sachs University's, Britain and Dr. Li Ji in China economic research center of Beijing University.

Many people think that the privatization of property rights is the only outlet of enterprises' competitiveness given by the reform of state-owned enterprises. The fashionable economic point of view formed in the end of 1980s has been challenged by the view of super-property at the end of the late 90's. While such challenges and the impact is precisely from the United Kingdom which is the earliest country that practice the privatization reform in the world. (Bishop, Kay & Mayer, 1994). After testing a large number of empirical investigation, the British economists have begun to consider that the "super-property rights theory" has more internal logic and empirical explanation convincing than "the privatization of property rights theory". After comparing comprehensively and widely all types of privatization enterprises of the United Kingdom, British economist Martin and Parker (Martin & Parker, 1997) found: in a full competitive market, the average effective significantly after the privatization of enterprises increased significantly; in the monopoly market, the average effective significantly after the privatization of enterprises was not obvious (Bishop, Kay & Mayer, 1994). He believes that enterprises efficiency has no inevitable relationship with ownership of property, but has relationship with the degree of market competition. The more intense market competition is, the level of effort to improve the efficiency is higher. During the same period, Thai Lang Tang (Tittenbrun, 1996), the professor of Economics at the Australian analyzed 85 economic literatures about property rights and benefits. He also found: the enterprises' benefits are mainly related with the market structure, namely with the degree of market competition. Among the 85 economic about property rights and benefits literatures analysed by Teng Tai Lang, there are 15 literatures which found that the state-owned enterprises has higher efficiency than private enterprise has. Other 15 literatures think that there is no difference. According to statistical theory, in 100 observations, as long as there is more than 10 observations do not accept the proposition hypothesis, that is, the state-owned enterprises has lower efficiency than private enterprise has. Then this proposition is not a valid point from the empirical sense. These comprehensive studies have shown that competition is the fundamental guarantee to improve the corporate governance mechanism to effective. Competition will force companies to improve the mechanism, to improve efficiency. Therefore, the view of the super-property thinks that, the basic motivation for enterprises' improving their governance mechanisms is to introduce competition. Only through competition can enterprises create the two outcome of "the survival and development", and "out of death", creating governance mechanisms to improve efficiency.

The view on super-property rights includes two basic elements which are corporate governance and competitiveness theory. The view on super-property rights thinks that corporate governance mechanism is a underlying factor to determine a long-term performance. Corporate governance includes mainly four aspects; the contract incentive theory, the manager election theory that are under asymmetric information, asymmetric information, the supervision institutions and property rights structure. Super-property rights view regards

competition as one of the fundamental factors of stimulation based on competition incentive theory competition development theory, competition stimulation theory and perfect competition information theory. It appears market competition creates the optional of "Health" and "death". In front of the optional, no matter whose enterprises are, as long as they would like survival and development, they have to improve the corporate governance mechanism and improve efficiency. This choice resulted eventually in the same tendency of corporate governance mechanisms and the benefits, or poor corporate governance mechanisms will be eliminated. This logic tells us that after taking into account competitive factors, the market's long-term evolution of governance mechanisms for the final effect is not determined by the vesting of property rights. However, this conclusion does not exclude long-term ownership of the short-term impact of governance mechanisms. Because the market competition has not yet reached the final balance in the short term. There are still the difference between effectiveness and mechanisms. Such differences are likely to be vested by property rights or other factors, but this difference will eventually be eliminated by competition. It can be seen that in the short term, the rapid improvement of governance mechanisms through property rights has a positive meaning. However, the transformation of property rights does not mean that the "sit back and relax". Enduring success of enterprises depends on whether the continuous improvement of governance mechanisms can adapt to market competition; otherwise, even if property rights have transformed, the enterprises will be eliminated. In addition, the state-owned enterprises adhering to the same property rights, as long as the implementation for the reform of corporate governance mechanism, the introduction of the governance mechanisms adapting market competition, then eventually the old system of state-owned enterprises. should be out of the market competition

Based on the above theory, as far as the marginal corporate governance concerned, the core is starting with deepening the reform of state-owned enterprises in the monopoly industry to strengthen the control of the "internal control", regulate their conduct and to eliminate the survival space of marginal business. The key of which is to introduce commercialization and competition in accordance with the requirement of the "super-property rights theory". Commercialization refers to injecting enterprises the governance-oriented mechanism by commercial interests, such as the reform of state-owned power companies, the implementation of commercialization of governance mechanisms by privatization of changing property rights in the United States and British. France and New Zealand, while, improve the governance mechanisms through the transformation of state-owned business. Competition is the means to create maximum competition, making market competition to stimulate and standardize the enterprise. The major Western countries are all reforming the electricity market, from the upstream, downstream and all-round monopolized market structure to the upstream, downstream and all-round competition market. As far as the present condition of our country, the commercialization of state-owned enterprises is based mainly on the practical problems of the implementation of enterprises' governance mechanisms re-engineering project, to promote the business goals of profit, the owner acts of standardization, market-oriented incentive mechanism, managers employ competitive selection of asset management and commercialization. At the same time, to the great full competition in the market. The adequacy of competition in the market is mainly reflected in the market mechanism of entry and exit of an effective and improving. However, because the delayed market exit mechanism or the impeded efficiency hindered the effective withdrawal from the enterprise, how to build an efficient market exit mechanism as soon as possible is the most urgent task of enterprise reform. It was also an important sign to measure the success of enterprise reform. Because its competition is not fully complete if there was no effective exit mechanism of the market. In short, the two factors---competition and property rights mechanisms as well as their relations put forward by "super-property rights theory" to decide the corporate governance mechanisms has significant application and promotion value for the management of marginal enterprises in China's monopoly industries

### **3. The field of infrastructure: the path of state-owned enterprise reform and solutions**

Since 1994, a common phenomenon of China's state-owned enterprise reform in the field of infrastructure, both in theoretical circles and in practice circles, is that the provision of infrastructure and its serving state-owned enterprises equal to the state-owned enterprises which provide private goods, not placing the two kinds of state-owned enterprises in the "Company Law" framework, while carrying out the reform in accordance with the "modern enterprise system" and taking shareholding system reform to list and then withdraw. Nevertheless, in Western countries, more state-owned enterprises in the field of infrastructure in its early days of reform take special legal - form of public enterprises to start only to take the way of listing and then withdrawing. Some even nationalize the privatized infrastructure and services and transform them into public enterprises, such as the United Kingdom and the United States. Seeing from the surface, the above phenomenon reflected in the path of reform, but in essence it is the efficiency of institutional arrangements, namely, the infrastructure, and why the need for the provision of services provided by the public enterprises, which is that in the provision of

infrastructure and services, which is more effective institutional arrangements of the institutional arrangements for public enterprises and private enterprises? It is generally agreed that the institutional arrangements for private enterprises are more effective. In fact, these conclusions are deemed to be correct by most are open to deliberate:

First of all, the effective evidence is insufficient in practice. On the problem which is more efficient to provide public transport by public or by private, experts analyzed the operating efficiency on urban transport services in Spain. It was concluded that the private management of public transport services was neither higher than the efficiency of the public transport services nor lower than its management efficiency. There is no contact between public sectors and private sectors. Secondly, analyzing from the theory, the most critical factors are skills, property rights and market structures of many factors. The state-owned enterprises in the field of infrastructure through joint-stock reform of to withdraw from the market, only to analyze solving the issue of property rights but rarely involve in technology and market structure. At certain skill level, only the issue of property rights and market structure issues are both solved in can a higher efficiency be obtained. Third, from the efficiency of its own, there are the internal efficiency and external efficiency of the business efficiency. The internal efficiency of public enterprises in field of infrastructure depends on the actual capacity and level of which the public enterprises convert the resources into infrastructure items. The external efficiency of public enterprises is the comprehensive reflection that the environment's recognition degree on infrastructure items provided by public enterprise. It includes two aspects: first, the market efficiency of public enterprises. It is decided by the ability that enterprises understand and apply the market, focusing on the extrinsic value's achieving difficulty of public enterprises' internal efficiency, namely, market acceptance, reflecting the application level of public enterprises to market mechanism. Second, from the perspective of the allocation of resources of the whole society, the externalities' nature and size brought to consumers and private enterprises by public enterprises through the provision of goods, namely, the allocation efficiency, which focuses on the socio-economic efficiency of macro-sense, reflecting the integrated results of the government visible hand and the market invisible hand. However, since 1980s, people simply deny the public enterprises and use it as an excuse advocating the privatization of public enterprises always with its inherent low efficiency regardless of the level of external efficiency. Clearly, this understanding of the efficiency of public enterprises is not correct, at least a one-sided.

This shows that the special legal and institutional arrangements will be the necessary institutional arrangements for the reform of state-owned enterprise in the infrastructure field, which will especially be long-term in certain aspects or modules in network-based infrastructure industries. So we will have to rethink about the idea of the issue of state-owned

To analyze from the reform ideas, there is no difference of the essence meaning on the legal status and its institutional arrangements between the state-owned enterprises in the area of personal belongings and general private persons or enterprises. Therefore it is a matter of course to carry out the reform according to their mode of private law. This reform can be summarized as: "two-point method, one step." The so-called "two-point method" is to separate the enterprise in accordance with their legislation or Commercial Law basis into specific types of legal entities and private persons. The so-called "one step" refers to change the state-owned enterprises which lack separate legislation into public enterprises based on private law directly. However, as for the state-owned enterprises in the field of infrastructure items, which has a different legal status from that of general private corporate or of enterprises. Their behavior is adjusted by the separate legislation model. They are a special legal entity and there are special requirements of corporate governance structure. Therefore they could not press the reform approaching to "two-point method, one step". However, our country's reform on infrastructure in terms of logic or the path of has applied the model of "two-point method, one-step" mechanically to promote reform since 1994, attempting to cross this particular stage of particular corporate system and its governance structure under the adjustment of separate legislation mode to reach private corporate system in one swoop under the mode of private law. However, due to a wide range of conditions are not met, there were in general two significant "effect variation" in result. First, "externalized" controlled by "internal control" --- a large number of derivatives of marginal enterprises, which brought about the loss of enterprises' internal efficiency - assets and profits (Jin-Ming Wu, 2006). Second, the failure of external regulation --- a very serious regulation exit made the external efficiency of enterprises - fair and reasonable face a serious distortion. The emergence and the spread of these two cases not only led to serious distortions in the allocation of resources, but also have interfered and hindered, to a large extent, the deepening of the reform of state-owned enterprises in the field of infrastructure.

Therefore, as for the state-owned enterprises in the field of infrastructure, the reform path must be adjusted accordingly. In our view, they should adopt the idea of "pedigree law, step-by-step walk" to promote the reform state-owned enterprises in infrastructure sectors. The so-called "pedigree law" is a classification based on special

corporate and private corporate, introducing in general public enterprise system in the field of infrastructure, then separating public enterprises on subdivided legislation into A, B, C, D categories, and organizing with the corresponding different forms of enterprise in a different dimension. The so-called "step-by-step walk" reform means two steps. The first step is to transform the state-owned enterprises which lack separate legislation, which our country provide infrastructure and its services, which combine government enterprises, government funded and government supervisor into one utility, into public enterprises of category A based on separating legislation and combining the government enterprises, government funded and government supervisor into one utility. The second step is to change public enterprises of category A based on separating legislation and combining government enterprises, government funded and government supervisor into one utility into public enterprises of category B or C based on separating legislation and dividing government enterprises, government funded and government supervisor. The third step is to transform the public enterprises of category B or C through reform into the public enterprises of category D or enterprises based on private law.

However, a key to improve reform by the "pedigree law, step-by-step walk" is to introduce the special corporate system according to different modules of infrastructure field. The division and modular of infrastructure is the core prerequisite of making infrastructure industrial policies and changing integrated monopoly into structural competition. In a sense, the diversity of organizations can be seen as a modular organization with a relatively independent status of the heterogeneity of the main business, which is the different aspects of a single modular organization from other organizations in the resource, element and capacity. The resource, element and capacity of these single modular organizations is the heterogeneous and non-transferable, which need the resources allocation through the market mechanism effectively. In incomplete market conditions, a single modular organization is a combination of heterogeneous resources. This heterogeneity can make a single modular organization of the market competition in the long-term accumulation of knowledge and ability of the core elements of value, etc. inspired. Moreover it can make the overall value of business obtain a "market premium". In another word, in incomplete market conditions, modular organizations as a provider of elements, can become a self-organized business entities through being independent relatively from the enterprise organization. to get access to higher income than other elements' market provider, or to get access to the "excess earnings." In a sense, the core competitive advantage which is unique, irreplaceable, difficult to mimic owned by an independent operating unit is a prerequisite for the existence of the modular organization. It is also the essence of distinguishing divisibility border of the infrastructure. In the long term, as infrastructure is divided into modular organization one by one, modular organizations not only build a interrelated complexity systems according to certain rules which organize capital, resources, physical assets, but also make each module have a unique gene or capacity, which requires each module must be reorganized according to their ability elements. These capabilities can be exclusive tacit knowledge, brand management abilities, research and development capabilities, marketing capabilities, the business core capacity and the ability to innovate business models to make modular organization become ability modular organization. Clearly, the ability modular organization is different of the different infrastructure and different segments of the same infrastructure, from which the heterogeneity between the modular organizations and the diversity of the organization are derived. These new modular organization can construct their own value systems. The border of infrastructure's diversity can be distinguished or defined. Based on this analysis, we can distinguish the main module and the classified special corporate in the infrastructure field (institutional arrangements for public enterprises is shown in table 1). Public enterprises of category A or B generally deployed in the facilities module of infrastructure industries, generally using the form of state-owned enterprises or state-holding enterprises. Public enterprises of category D generally deployed in supporting aspects of the infrastructure industries, in general using the form of government-sponsored or subsidies, which are also provided by the private sector. The government give social supervision and economic regulation. Category B and C generally deployed in the operating segments of infrastructure industries, mainly taking the enterprise form of state-owned holding and public-private partnerships. There are many specific modes.

Precisely because of this, the reform task of state-owned enterprises' different modules in the field of infrastructure is different. First, the reform task in the infrastructure module is: (1) to promote the legal system in transition, shift from no single legislative to separate legislation, establish special corporate, change from state-owned enterprises into public enterprise of category A; (2) to achieve the separation of government and enterprises, government funding as well as government supervision, transform from public enterprises of category A into a wholly-owned state-owned public enterprises in category B; (3) to promote the reform of joint-stock, change state-owned wholly-owned public enterprises of category B into state-controlled public enterprises of category B. Second, the reform task in the operations module is: (1) to promote the transformation of corporate system, shift from no single legislative to separate legislation, establish special corporate, establish special corporate change from state-owned enterprises into public enterprise of category A; (2) to achieve the

separation of government and enterprises, government funding as well as government supervision, transform from public enterprises of category A into a wholly-owned state-owned public enterprises in category B (3) to promote the reform of joint-stock, change state-owned wholly-owned public enterprises of category B into state-controlled public enterprises of category B; (4) to achieve public-private partnership or to promote the listing, transform public enterprises of Class B into public enterprises of category C or D, in the small-scale local market, but also when the time is ripe to promote further transformation from the special corporate system to private law system, to attain the realization of conversion from public enterprises of type B, C, D to private enterprises. Thirdly, the matching module, as state-owned enterprises have basically converted into wholly-owned or state-controlled enterprises essentially belonging to competitive areas, lacking the necessity of deployment of special corporate system, the task of reforming state-owned enterprises is to promote further reform by the modern enterprise system, to achieve public-private partnership or the listing of state-owned enterprises, to make state-owned enterprises transform into public enterprises of category C or D, on this basis, to promote the further withdrawal of state-owned shares, to attain the realization of conversion from public enterprises of categories C, D to private enterprises.

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Table 1. The institutional arrangements for business corporates which corresponding to the main module of In infrastructure

| The institutional arrangements for business corporates | Public enterprises of type B or C in separate legislation                            | Public enterprises of type A or B in separate legislation                                                                                              | The enterprises of category D the public or private commercial enterprise Separate legislation in system                                                                   |
|--------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| moduals                                                | Operrating mudual                                                                    | Facilities module                                                                                                                                      | Supporting modules                                                                                                                                                         |
| railway                                                | Passenger and cargo transport module                                                 | Rail networks, signal facilities module                                                                                                                | Railway construction, locomotive and vehicle manufacturers and maintenance, as well as planning ,design and safe building modules,etc                                      |
| Civil Aviation                                         | Passenger and cargo transport module                                                 | Routes, airport facilities module                                                                                                                      | Aircraft manufacturers, airport design and construction, material supply routes, restaurants and other service modules                                                     |
| electric power                                         | Power generation, wholesale power market and the retail business supply module       | High-voltage transmission, low-voltage power distribution module                                                                                       | Power generation equipment, wire and cable and accessories, switches, measurement devices, such as manufacturing, as well as planning and design modules                   |
| Post                                                   | Sorting module                                                                       | Local Delivery Network Module                                                                                                                          | Postal equipment and materials, as well as planning and design and safe building modules,etc                                                                               |
| Telecom                                                | Basic telecommunications services and value-added telecommunications services module | Communications satellite, bandwidth, wavelength, optical fiber, optical cable, piping and other network facilities and local access network,module,etc | Communications engineering equipment, electronics, cable, pipeline, telephone, mobile phone manufacturers as well as the planning and design and safe building modules,etc |
| Highway and other road traffic                         | Passenger and cargo transport module                                                 | Road network and its facilities module                                                                                                                 | Designandconstruction, automobiles, trucks,motorbikesandother manufacturing modules,etc                                                                                    |
| Urban water\ gas\ warm Supply                          | Water,gas, heat collection, processing module                                        | Distribution pipeline network and its facilities module                                                                                                | Water \ gas \ heating equipment and water \ gas \ warm the use of equipment manufacturers, as well as planning and design and safe building modules,etc                    |

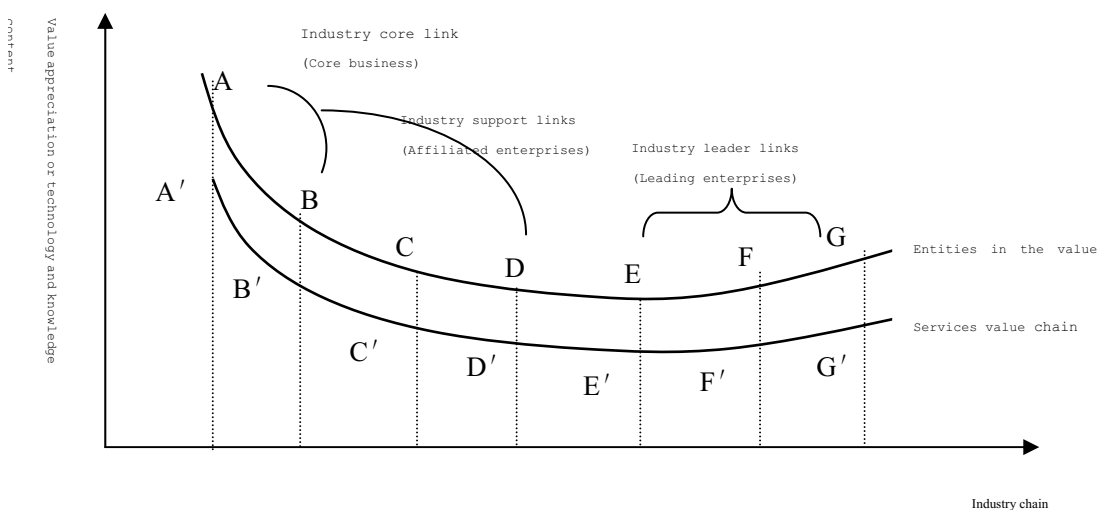


figure1 The figure of relationship between industry value chain and its Equity Carve-Outs