

Private Sector Development in the People's Republic of China

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Summary

The government of the People's Republic of China (PRC) has implemented an economic reform and opening up policy since the late 1970s. For the more than 25-year long transition period from a centrally planned economy to a more market oriented economy, a number of private entrepreneurs and private enterprises have emerged and are now playing a critical role for the economic development of the PRC. The purpose of this paper is first to examine the historical and current development of the private sector in the PRC, and then to try to identify its characteristics, bottlenecks to further development and their policy implications. We then explore a simplified mathematical model, illustrating the behavioral pattern of private and state-owned enterprises (SOEs) in the PRC. Finally we try to present some further economic implications derived from the model.

This study consists of seven chapters. In Chapter 1, we review the historical development of the private sector in the PRC and identify three phases. The first, running from 1978 to 1986, is the initial stage of economic reform, when the private sector was positioned as a supplement to the socialist state-owned economy. During the second phase, from 1987 to 1996, the basic acts on private enterprise were enacted and the new concept of the "socialist market economic system" was first introduced. In the third stage, from 1997 to the present, the private sector was upgraded to an "important component of the economy" from its previous position as "supplement." Communist Party membership was opened to private entrepreneurs and the famous "Three representations" principle was launched. The Constitution was also amended to protect private property rights. In Chapter 1, we also attempt to make some brief observations about the politics or implications of private sector development on the future of the PRC economy. More specifically, we discuss the issue of why an increasing number of private entrepreneurs are now actively trying to participate in the political process, and anticipate more involvement of the private entrepreneurs into the political process. We also stress that the PRC Communist Party shows considerable flexibility in handling the matter of private sector development, as is clearly reflected in the "Go ahead of time."

Chapter 2 looks into the modality of the pursuit of private sector development. We examine how the PRC has promoted the private sector, identify its gradualist approach and the process of "Pareto improvement." We look into the background of why the PRC has taken gradualist approach, identifying several factors such as population density and long-term unemployment problems.

Three phases are identified in this connection. We find that the approach has become more radical after the third phase. For instance, we find that the PRC attempted to accelerate privatization by setting up an Asset Management Commission. A philosophical discussion on the "control power of state-owned enterprises" is also made in this chapter. The traditional theory argues that the existence of a large state-owned sector guarantees the socialist system. If this is so, what are the implications of the further development of the private sector on the economic and social system of the PRC in the future?

In Chapter 3, we introduce a wide range of statistics and findings on the private sector in the PRC and highlight its growing economic presence. The number of firms and workers by sector, growth of registered capital, output and investment, and tax revenues are all highlighted. Regional imbalances in private sector development are also identified. In Chapter 3, we take Zhejiang Province as a case study, looking into how private sector has developed there. We

discuss why the private sector has developed so rapidly there, and what were the conditions for this development.

Chapter 4 identifies several constraints to the further development of the private sector and their policy implications, which includes the lack of a level playing field, governance and transparency, high barriers to entry, immaturity of the capital market, people's perception to the private enterprise as well as the lack of management skills of private entrepreneurs and the wide income disparities. From a slightly different angle, the implications of private sector development for macro-economic policy are also discussed. It is pointed out that the development of the private sector tends to undermine the effectiveness of macro-economic policy and can lead to excess investment and inflation. In connection with the constraints to the further development of the private sector, some cases of failure are highlighted in this chapter.

Based on the above findings, in Chapter 5 we explore a mathematical model, illustrating the behavioral pattern of private enterprises as well as SOEs in the PRC with multiple objectives such as profit maximization and output or market share maximization. Using the model, we discuss the implications of behavioral pattern with multiple objectives for output, investment, employment, and profits as well as the number and size of firms. We derive four main propositions from the model. First, during the process of reform, private enterprises as well as SOEs invest more capital and employ more labor more than enterprises that pursue the single objective of profit maximization. Second, enterprises with multiple objectives may lose profits and fall into a weak position in competing with enterprises with the single objective of profit maximization. Third, holding other conditions constant, the number of private enterprises increases with marketization and privatization. Lastly, the average firm size depends on the marginal ability of managers, which in turn depends on marketization and privatization. With the progress of marketization and privatization, the average firm size decreases.

In Chapter 5, we also introduce some findings from a survey on Chinese enterprises conducted by the Institute of Economics, Chinese Academy of Social Sciences (CASS), looking at behavior and performance indicators.

In Chapter 6, we further examine the results of the CASS survey using cross-sector and time series analysis on the performance of the surveyed firms. We compare various efficiency indices by types of firm and in particular highlight the impact of changes in capital structure on output. It is shown that these findings provide some evidences for the propositions derived from the model in Chapter 5. Finally we make a brief concluding remark in Chapter 7.

1. Historical Review: Focusing on the PRC's Political Presence-

1.1 Overview

The development of private enterprises in the PRC has its own special background. During the 1950s, the old Chinese capitalist economy nearly died out with the establishment of the PRC and the reconstruction of industry and commerce within the framework of the socialist economy. In December 1978, the third plenum of the Eleventh Congress of the Communist Party of China (CPC) was held, marking the beginning of the reform era. In order to promote the economic development of the PRC, a series of reform policies were launched, along with an opening-up

policy to the outside world. A guideline for mutually supplementary multiple economic elements was also formulated, with the public economy as its base. Based on this, the green light was given for the establishment of individual enterprises (*getihu* or 个体户). In consideration of the political conditions and limitations of people's ideology and recognition at the time, individual enterprises could only employ one or two apprentices and as many as five helpers, for a total of not more than seven persons. With the development of individual enterprises, seven workers became insufficient for meeting the demand of individual enterprises for labor. In reality, some individual enterprises were already breaking the rule and attempting to employ more than seven workers. To cope with their needs, the central government gave permission for enterprises to employ more than seven workers. Since 1978, the private economy has evolved constantly. Using policy evolution as a basis, private sector development can be classified into three phases.

1.2 First Stage (1978-1986): Launch of Economic Reforms-

From 1978 to 1982, although a series of policy measures were launched and the private sector was developed, there were still no explicit economic and political guarantees. As a result two phenomena took place: capital flight overseas and "hong maozi (红帽子)" (wearing a red hat or disguising state-owned enterprise SOE or collective enterprise). This became the major impediment to the further development of the private sector. However, the most important development during this stage was the Constitutional amendments in 1982, placing the private economy as a "supplement to the socialist state-owned economy."

In 1978, the third plenum of the Eleventh Congress of the CPC made it clear that the Party would move from the political struggle of the past to socialist modernization and economic construction. A series of policy favoring the development of agriculture were put forward, stating, "Private plots, family businesses and bazaar sales are necessary supplements to the socialist economy and nobody may intervene against them."

A report issued on April 23, 1979 by the State Administration for Industry and Commerce, put forward for the first time a policy to rebuild and develop the individual economy. The report stated that in line with market demand and also with the agreement of the concerned departments, jobless workers registered in permanent residence could be permitted to undertake individual business, such as repairs, handicrafts and services. However, employed workers were not allowed to do so, and were recommended to work collectively if they so desired.

In November 1979, the CPC Central Committee of the PRC approved the request of The United Front Work Department of The CPC Central Committee (中共中央统战部) and five ministries under the State Council that illegal mongers and small peddlers should no longer be treated the same as "capitalists."

In August 1980, the Central Committee prepared a document on the national labor employment situation, and put forward a policy to encourage and support the development of the individual economy under the guidance and instruction of the state and the rule of voluntary business associations.

On March 30, 1981, the State Agriculture Committee issued a notice encouraging the active development of a rural multi-economic component. It called for "encouragement and active support for individual or partnership units to engage in services, handicrafts, aquaculture, and

transport. Let farmers act by themselves.” This notice paved the way for the development of the private economy.

On June 27, 1981, the guideline report from the State Administration for Industry and Commerce to the State Council stated, “urban collectives and the individual economy are one of the components of the multi-economic structure.” Rebuilding and developing the individual economy was regarded as an important task for the whole economy. It was also expected to solve urban employment. At the same time, the Sixth Plenum of the Eleventh Congress of the CPC, in its “Resolution on a number of historical problems,” announced that the changes in socialist production relations should adapt to the situation of productivity, and should be beneficial to the development of productivity. It indicated that while the state-owned economy and collective economy continued to be the basis for the PRC economy, the individual economy was a necessary supplement. However, it also argued that the planned economy was the basis for the public economy, and that the supplementary role of the market should not be developed further in the process of economic adjustment.

On July 7, 1981, the State Council announced a regulation on the development and management of the urban non-farm individual economy. This is the first legal document on the individual economy, and it clarified the management framework of the individual economy. Subsequently, the Central Committee and the State Council repeated their policy of developing the individual economy in order to explore the employment opportunities and revitalize the economy.

On December 4, 1982, a Constitutional amendment was passed at the Fifth Meeting of the Fifth People’s Congress. While it maintained the basic idea that the economic foundation of the PRC was the socialist public system, by stating that “the whole people own the system collectively,” it is also stressed that in rural and urban areas, the individual economy should be encouraged under the regulations and guidelines of the Administration of Industry and Commerce as a necessary and beneficial supplement to the public economy. It was stressed that since the productivity level as a whole was still low and uneven, “multivariate economic elements” would need to coexist for a long time, and only when the multivariate economic elements developed further could the rural and urban economy thrive and people’s life be improved.

On January 2, 1983, the Central Committee of the CPC in its promulgated document, “On a number of issues involving current village economic policy,” indicated that the individual business enterprises and hand-masters of planting and breeding of villages may employ helpers and recruit apprentices in accordance with this document. However, although companies cannot publicize or encourage hiring more than eight helpers and apprentices, the practice is not banned. In such cases, the partnership economy was advised. On April 13, the State Council issued a supplementary regulation further elaborating the details of the policy on the individual economy.

On October 20, 1984, a decision regarding economic system reform was passed in the Third Plenum of the Twelfth Congress of the CPC. It reconfirmed that ownership by the whole people was the leading power of the socialist economy. However, it also stressed that the individual economy, which was closely related to socialist public ownership and different from the capitalist private economy, should not be excluded. It was called upon to play a very important (un-substitutable) role and to contribute to the convenience of popular lifestyles, expanding socialist production, and increasing employment opportunities. On January 22, 1985, a decision made by the CPC Central Committee to deepen rural reform, further argued that in the early phase of

socialism, the individual economy and some private enterprises would inevitably exist for a long period of time. This was the official document to formally refer to private enterprises.

1.3 Second Stage (1987-1996): The Socialist Market Economy¹-

In 1987, the Communist Party Congress reconfirmed that the cooperative, collective and private economies were important supplements to the socialist economy and encouraged their development. Policies, laws and regulations relating to the private economy were to be speeded up in order to reinforce the supervision and management of the private economy. In 1987 and 1988, the “Provisional Regulation of Rural and Urban Business Registration and Management” and “Provisional Act of Private Enterprises of the PRC” were enacted.

These acts stated that individual enterprises were allowed to exist and to be protected by the law, and the nobody could infringe upon their rights. The Constitutional amendment act passed at the first meeting of the Seventh People’s Congress on April 12, 1988 also stressed that “the private economy is allowed to exist and develop within the scope of the law, the private economy is a supplement of the socialist public economy, and the state protects the lawful rights and lawful profits of the private economy and carries out the supervision and management of the private economy.”

Under the 1988 Act, private enterprises were regarded as profit-making economic units invested and established or controlled by natural persons and using more than eight employees. The Act reiterated that the private economy was a supplement component of the socialist public economy, and that the state protected the lawful rights and lawful profits of the private economy. At the same time, private enterprises were required to abide by the law and the state’s policy. In the same year, provisional regulations for private enterprise income tax, personal income adjustment tax and labor management were issued.

The Fourteenth Congress of the CPC in October 1992 summarized the main contents of the socialist economy with Chinese characteristics, and made clear the goal of the “socialist market economic system.” The congress noted that the goal of economic reform was to build up and make perfect the socialist economic system with the public economy, and to maintain the “principle of distribution according to work” as its main foundation, with other type of economic elements and distribution styles as supplements. In the areas of structure of ownership, the congress also noted that the public economy, including the state-owned economy and collective economy and the principle of distribution according to work, continued to be the main body and that the individual economy, private economy and foreign funded economy continued to be supplements. The idea was that multivariate economic components could mutually develop and coexist over a long period of time or that different economic elements could cooperate and work

¹ The market economy (市場經濟) is an opposing concept to the command or planned economy in the PRC. The market economy is one where resource allocation is adjusted through the market mechanism (Chen Zhongsheng, 1999 [6]). Realizing a market economy is the objective of the PRC economic reform. Though there are great differences among different types of market economies, such as the UK, USA and Japan, in Chinese eyes there is a common character to all market economies, i.e. people acknowledge the scarcity of various resources, and both individuals and firms are basically free to make decisions about what is produced, how much to produce, for whom to produce and how to produce, based on supply and demand. Thus, it is clear that in all market economies (whether the UK, USA or Japan) resource allocation is mainly dependent on the market rather than on administrative fiat, laws, etc. Compared to the traditional Chinese socialist economy, they all have great advantages and are worthwhile for the PRC to follow.

with each other. Furthermore, the Deng Xiaoping's famous South China Tour (南巡講話 Nan xun jiang hua) in 1992 accelerated economic reform and the opening up of the market to the outside world.

On February 28, 1993, the State Council, in its decision on speeding up township and village enterprise development in the central-west region, stated that, "the velocity of productivity should not be restricted. In regions with poor and backward collective economies, individual, private and shareholding enterprises will be encouraged to the greatest extent possible. Unfair treatment on individual and private economy has to be corrected. Buying out individual and private enterprises must be banned." The Third Plenum of the Fourteenth Congress of the CPC further strengthened this policy.

1.4 Third Stage (1997-2003): The "Three Representations"-

In September 1997, the Fifteenth Party Congress changed the position of the private economy from the previous "supplement to the state-owned economy" to an "important component of the socialist market economy." The private economy was now expected to play an important role in meeting the diversified needs of the people, increasing employment opportunities and promoting national economic development.

The 1997 Party decision was reflected in a Constitutional amendment of March 1999, which ensured the state's guarantee of the legal rights and interests of the private sector, with the exception of property rights. The amendment enhanced the status of individual and private economy, and the clause stating that, "the individual and private economy is a supplement to the socialist public economy" was left out.

It is likely that for private enterprises, nothing is more important than the speech made by President Jiang Zemin at the 80th anniversary meeting of the CPC, after the PRC started to carry out its reform and opening policy in 1978. In this speech, President Jiang stated, "private entrepreneurs are now one of the new social classes (hierarchies), and they make great contributions to socialist society through their honest labor and lawful operation, bringing together workers, farmers, intellectuals, cadres and People's Liberation Army soldiers."

The idea was that the superior among them could be absorbed into the CPC. The spirit of his speech was reflected in the 16th report of the CPC, and the party constitution was revised accordingly. This speech definitely further promoted the social status of the owners of private enterprises, constituting another milestone in the development of private enterprises after the Fifth Congress of the CPC.

This idea was reflected in the "San ge Daibiao" (三个代表 or Principle of Three Representations). According to this principle, the Party represents the most advanced economic forces, the most advanced elements of culture and the basic interests of a wide range of people. In our context, the most important factor seems to be the third, namely a wide range of people including private entrepreneurs. The implications of the "advanced economic forces" are also very important. The CPC has now come to realize that the most advanced economic forces and high economic productivity necessarily comes from the private sector.

In 2002, the CPC opened Party membership to entrepreneurs and businesspersons. It is widely expected that in the near future, more and more private entrepreneurs will take senior positions in the Party under the "San ge Daibiao" principle.

1.5 The NPC in March 2004

The proper way to protect the property rights of private enterprises was discussed within the CPC, and an amendment to the Constitution was passed at the National People's Congress (NPC) in March 2004, with Article 13 being amended. According to a report in *People's Daily* dated March 9, 2004 [51], the main points were first an expansion of the scope of protection of the means of production (in the past only individual consumer assets were protected). Secondly, the terminology "ownership rights" was changed to "property rights" to make the concept of "rights" clearer and broader. This was a major step forward. At the same time, some legal experts pointed out that the old Constitution already included such a clause, and that the 2004 amendment merely attempted to improve the situation. It was also reported (*South China Morning Post*, March 20, 2004 [27]) that a national business association stated that while it was a great step forward, it was not yet sufficient. The association said it would continue to lobby for equal treatment in the area of taxation, bank-financing entry to state dominated sectors, etc.

Table 1.1. Chronology: Historical Development

1. 1978 to 1982: Observation period, no economic or political guarantees
2. 1982: Constitution amendment, "Supplement to the socialist state-owned economy"
3. 1987 and 1988: "Provisional Regulation of Rural and Urban Business People Registration and Management." Private enterprises (PE) appear in official documents for the first time. "Provisional Act of Private Enterprise of the PRC" is also enacted.
4. 1992: Party Congress adopts resolution to set up the "Socialist market economic system"
5. 1997: Party Congress changes position of PEs from their previous role as "supplement" to "important component"
6. 1999: Constitutional amendment guarantees legal rights and interests of the private sector, with the exception of property rights.
7. Three representations ("San Ge Dai Biao") principle: advanced culture, productivity and interests of the greatest number of people.
8. 2002: Party Congress grants Party membership rights to entrepreneurs.
9. NPC 2004: Constitutional amendment guarantees property rights.

1.6 Politics of Private Sector Development

There has been increasingly active participation by private entrepreneurs in the political process. According to the "Fifth sample survey on private enterprises" in 2002, 17.4% of private entrepreneurs become representatives of the NPC, and the proportion of Party members to total private entrepreneurs rose from 19.8% in 2000 to 29.9% in 2002. It should be noted, however, that this includes managers of privatized SOEs (reference [46]).

Why do entrepreneurs actively participate in the political process? The primary motivation seems to be economic, i.e. to protect and promote their economic interests through close relationships with various authorities. In connection with this, it should be noted that market intervention by authorities or under laws and regulations deeply affects the economic activities of entrepreneurs, resulting in bribery and corruption among bureaucrats. Political motivations also seem to be important, i.e. gaining promotion to senior governmental positions and being recognized as prestigious members of society.

For example, China Central TV Network (CCTV) disclosed a case in one county where some private entrepreneurs were promoted to official positions in exchange for tax payments double those required by the local government. If this type of phenomenon continues, market competition will be distorted. Such distortions must be eliminated to promote sound economic development. The increasingly active involvement of private entrepreneurs into the political process is envisaged in the near future.

Some experts have argued that under the transition political process, laws and regulations have still not been perfected, and social networks or informal personal connections (*guanxi* or 关系) are still dominant. One survey found that although private entrepreneurs had become active participants in the formal political process, after their businesses developed, their interest in politics seemed to diminish.

It is difficult to predict how the development of the private sector will affect the changes in the political process. A recent observation conducted by the China Academy of Social Sciences (CASS) found that the CPC is very flexible in handling matters concerning this. What was believed in the past is no longer considered important. The most important matter is the stability of the nation, the consolidation of the regime, and the maintenance of the power of the Party. The Party is apparently ready to accept anything that appears to be helpful for these purposes. With the development of the PRC's economy, the CPC has been making much progress of its own, in a trend called "go ahead with the time" (*yu shi ju jin*, 与时俱进). One could also argue, however, that many factors and conditions have changed as time goes by, and the CPC has simply accepted these changes and adjusted itself to them. This is a very pragmatic and realistic approach. In the past, the Party only claimed to represent the interests of workers and farmers. Now it aims to represent the broader people's interests, including those of private entrepreneurs. The inclusion of private entrepreneurs into the party means that fewer people will oppose the CPC politically, and this is clearly beneficial for the party's attempt to hold power. As time goes by, the only difference between the Communist PRC and the developed capitalist countries may only turn out to be politics. If the day comes when private entrepreneurs are no longer interested in joining the Party, the political situation and the society as a whole may become more stable and mature in terms of laws and regulations, as private entrepreneurs no longer need to rely on the CPC to achieve their economic interests. The diminishing interest in Party membership will also mean that personal values can be realized in many ways, and participation in the Party and interest in politics is no longer important.

2. The Modality of the Pursuit of Private Sector Development

2.1 PRC Economic Reform: Gradualism

In general, Chinese economic reform is characterized by gradualism and a problem-solving approach, i.e. beginning with the easiest part on an experimental basis and then gradually expanding the experience to other parts, for example, "from small to large," "from non-SOE to SOE," and "from east to middle and west", making compromises with vested interests in the planned economy. When difficulties are encountered, it seeks another approach. It was proved to be an effective way to avoid disorder and maintain social and political stability during the transition process.

Soviet Union-style socialist practice was followed by the CPC for over 60 years until 1978, when the PRC launched its reform and opening up policy toward the outside world. The socialist economy achieved miracles in some specific areas and some specific historical periods, thanks to the guidance of socialist ideology, which advocated a spirit of dedication to others and society as a whole. However, since this spirit ran against the intrinsic human nature of pursuing self-interest in the long run, the traditional socialist planned economy was not able to reach economic growth similar to the capitalism economies.

Why weren't the traditional socialist countries able to achieve economic development? Traditional socialist theory assumed that people in socialist countries had common interests and would work hard to attain them. The relation between people was considered to be cooperative rather than competitive. Communist party members were supposed to have no individual self-interests other than the people's interest as a whole. People's motivation to work was to be promoted by the cooperative spirit. These assumptions were clearly different from those of neo-classical economics originating from Adam Smith, which regarded human being as entities pursuing self-interest. This behavioral pattern of pursuing self-interest is seen as human nature, not having any relationship with what and how much education people receive.

Under the constraints of Marxist dogma, people's activities to attain wealth, consumption goods, freedom and democracy were greatly suppressed. However, the reality was far from the ideology and theory. People didn't like to work harder for the common interest; in fact they may have tried to work less. It can be concluded that traditional socialist practice was no success, and the promise of the Communist Party to improve the people's standard of living was never fully realized. However, at least one basic principle of the "materialism" advocated by traditional socialist economic theory seems to be relevant, i.e. "the economic base determines the social superstructure." It seems that the CPC understood clearly that it would not be able to maintain the socialist advantages and strengthen its political power without having a strong economic base, and it tried to satisfy people's demands for food, clothes, bigger houses, good means of transportation, etc. People also have non-physical needs, such as democracy and freedom. In fact, the objective of improving living standards was never given up by Chinese ordinary people. Even at the time of the planned economy, when the demand for goods was distorted and suppressed and private business was regarded as unlawful, the desire for a better life never seems to have disappeared. In most cases, private business existed underground.

There are many modes of reform in the world. Academically, they are usually classified into two types: gradualism, as exemplified by the reform in the PRC, and the "big bang," such as the reform in Russia. Why did the PRC choose to take a gradualist approach?

There seem to be at least three main factors that might account for this reform style. Firstly, the PRC was basically an agricultural country, where the rural population accounted for 80% of the total population. Rural households had very low productivity and few vested interests compared to other social classes, such as workers in SOEs or party cadres and intellectuals. They belonged to the poorest class of society in terms of living standard.

Secondly the PRC was one of the most populous countries in the world, and it faced long-term unemployment problems. To maintain social stability and improve living standards, the government tried to provide employment opportunities for a growing labor force. People in rural areas and unemployed people in urban areas were the first focus of the government. However, vested interests group and the political atmosphere at the time made it difficult for the government to deal with this. The easiest way seemed to be to carry out some reforms gradually on an experimental basis, while making sure not to harm people working in SOEs and the

government sector (vested interests group). This is what Deng Xiaoping meant when he said, let a part of the people become rich first. (让一部分人先富起来)

In addition to these socio-economic factors, it seems that the gradualist approach can be attributed to the mindset of Chinese people. Regardless of socialist ideology, Chinese people seem to be very pragmatic and always look for realistic solutions like Deng Xiaoping's famous remark; "whatever color a cat is, so long as it could catch mouse, it is a good cat (不管白猫黑猫, 抓住老鼠就是好猫).", which reflects his pragmatic attitude. He also once described Chinese reform using the phrase, "go across the river on stepping stones(摸着石头过河)," meaning that during the process of transition from a socialist mandatory economy to market economy, which had never been experienced before, the Chinese would have to go step by step. Whenever they found something wrong they would need to make corrections right way, unlike the "big bang," which made it difficult to restore order. Their view is that a perfect solution with some friction may not necessarily be the best, and that it is preferable to live with a satisfactory solution with less friction. In fact, an unidentified source confessed that, just like other countries, most documents released by the Communist Party were the outcome of compromises among government ministries representing various interest groups, and they could not necessarily be justified from the a theoretical point of view.

2.2 The Mode of Private Sector Development: Three Phases

In carrying out privatization², there are also generally two approaches. The first is to privatize existing government agencies. The second is to keep existing government agencies intact and allow private enterprises to enter into new areas (this is called parallel privatization or "双轨制 shuangui zhi," and also sometimes called the "Taiwan [sic] model"). The ratio of SOEs to private enterprises in Taipei, China, for example, was once 80:20. It is now 15 to 75. Yet, nearly all of the SOEs continue to exist. The second approach is more gradual and smoother than the first. In developing the private sector, the PRC's government also tried to pursue the second approach. However, since privatization was once a very sensitive issue in the PRC, though 'opening up', 'reform' and 'competitive force' frequently appeared in official documents, the word 'privatization' was seldom used in the past.

However, in recent years the PRC began to accelerate the privatization of SOEs or to sell SOE assets through the Asset Management Commission, which was established in 2002. In the past, the provincial governments were simply agents entrusted to tasks by the central government. Now, however, as owners of SOEs, they are able to dispose of SOEs and put the sales earnings into their own budget resources. With the encouragement of the central government, revenue-hungry local governments have rushed to privatize small and medium SOEs under their jurisdiction. The *South China Morning Post* in January 5 2004 [27] recently reported that 90% of provincial SOEs in the capital of Hunan province have been sold. The State Asset Commission indicated that 80% of small SOEs at the county level and 60% of municipal SOEs have been privatized.

² Privatization (私营化) usually refers to the process of selling or giving away the existing stock of government production assets. In reality, there is another type of privatization, called privatization at the margin, in which the state maintains ownership of existing assets but allows non-state owned investors to make new investments and therefore obtain partial ownership of total assets (David D. Li and Changqi Wu and Tao Li, Feb 2004 [16]). In the PRC, both types of privatization existed during the reform process, leading the state-owned asset share in total assets to continue to decline.

Looking back at reform in the PRC, private sector development has experienced three periods: the development of rural agriculture and individual business (1978-1984), self-development of private enterprises and contract responsibility reform in state-owned and collective enterprises (1984-1995), and the privatization of small-medium sized SOEs (1995-present). During the first period, the household contract responsibility system was introduced for the first time in a rural area, Fengyang County in Anhui Province. Under this system, farmers contracted with local government to deliver a fixed quota of grain in exchange for the rights to use agricultural land for private purposes. This system was imitated by other counties in the province and then encouraged by the provincial government and eventually the central government (Qian Yingyi, 2000 [23]). The household contract responsibility system was described as “paying enough to the nation and leaving enough (according to contracts) to collectives, with all residuals belonging to individuals” (缴够国家的, 留足集体的, 剩下的全是自己的). While the contract responsibility system strengthened the link between individual income and production output and was a great success in the rural economy, the so called “big pot dinner” (大锅饭 da guo fan) was completely destroyed and tremendous unemployment was created. In addition, many young intellectuals who had been sent to rural areas during the Cultural Revolution now came back to cities, adding further unemployment stress in urban areas. This in turn created space for the development of private enterprises. To mitigate the stress, government was forced to give urban individual businesses a legal position. By 1982, when the legality of the individual economy was granted by the amendment of the Constitution, 2.61 million individual businesses had been set up.

Box 1: Township Village Enterprises

When discussing private sector development, we cannot ignore the important role played by Township-Village Enterprises (TVEs). Over the past 20 years, TVEs in the PRC have achieved great success, attracting attention from all over the world. From 1978-2002, the gross industrial output value of TVEs maintained an over 20% annual growth rate on average. By 2002, the number of employees had reached 133 million, accounting for 26.8% of total rural labor. The industrial value added produced by TVEs reached 2,200 billion yuan, accounting for 46.1% of total value added in the whole economy. The rapid development of TVEs and their efficiency has long been a hot issue (Qian Yingyi, 2000 [23]) among academic scholars. TVEs have even been called the “great creation of Chinese farmers” and “secret weapons of China economic development” (Wei Guihua (韦桂华), 1999 [34]). Some economists (J. Svejnar, 1990 [10]) and M. Pitt and L. Putterman, 1992 [20]) carry out econometric tests showing that the efficiency of TVE is close to that of private enterprises.

The TVE is a concept relating to regional and non-farming industry, rather than to the ownership of property rights. The predecessors of the TVEs were enterprises such as People’s Communes and Production Teams. The concept of TVE appeared first in the “Report on Creating a New Phase of Enterprises of People’s Communes and Production Teams” drafted by the Ministry of Farming, Herding, Fishing, and transmitted by the Central Committee of the Chinese Communist Party and State Council. Since then the concept of People’s Communes and Production Teams was replaced by TVE. Perhaps for this reason, some economists believe that the term TVE refers specifically to collective enterprises owned by townships or village governments (M.L.Weitzman and C. Xu, 1994 [19]).

With the deepening of economic reform and opening of the economy to the outside world starting from 1978, the scope and meaning of the concept of TVEs changed. Currently, all enterprises (excluding SOEs) located in towns or villages and established by township or village governments, as well as private enterprises, individual enterprises and partnerships,

corporations, and foreign funded enterprises in towns and villages are called TVEs (Tian, 1995 [30]), Thus TVEs can be classified into two big types: collective TVEs owned by town or village government, and non-collective TVEs owned by individuals. In academia, the debate mostly involves the former type, which is also called TVEs in the narrow sense. Since the ownership of the latter group has already been privatized, it is not surprising to find that their efficiency is not lower than private enterprises.

Collective TVEs have four financing resources: funds from township and village governments, loan from banks, accumulated funds by the collective TVEs themselves, and individual or partnership investments. Generally, funds from township and village governments and individuals only account for a small part of their financing. Most funds come from the banking sector and accumulations by the enterprises themselves. Township and village governments often provide credit guarantees for collective TVEs and become investment risk takers and owners of collective TVEs. As township and village governments became the owners of TVEs, they gained the power to designate the managers. This resulted in both local government officials and employees of TVEs regarding themselves as the owners, and to heavy intervention by local governments in the decision-making of TVEs. Consequently, TVEs became a tool for local government officials to use public power for their personal interests. Hence, in the eyes of some Western economists, it is impossible for TVEs, with these blurred property rights, to realize the most efficient allocation of resources according to standard property rights theory. However, the rapid development Chinese TVEs is an undeniable fact. This phenomenon, in the light of standard property rights theory, was regarded as a mystery.

In our opinion, the rapid development and efficiency of TVEs is only meaningful when they are compared with SOEs, and not private enterprises. Even though their efficiency might be as high as private enterprises in the short term, as indicated by J. Svejnar, (1990 [10]) and M. Pitt and L. Putterman (1992 [20]), they still may be at a disadvantage in competition with private enterprises in the long term. The fact that the growth rate of TVEs continue to decline (Wei Guihua (韦桂华), 1999 [34]) and that most TVEs have been transformed into private enterprises or shareholder enterprises in the late 1990s has already demonstrated serious challenges to the survival of TVEs, and has cast doubt on their efficiency in the long term. This may imply that TVEs are not as efficient as private enterprises in the long term.

The TVEs possess four basic preconditions that may lead to a more efficient resource allocation compared to SOEs (Tian, 1994 [30]): recognition of personal self interest, right to free economic choice, decentralized decision-making and satisfactory mechanisms of encouragement.

Firstly, in TVEs, the relationship between personal and enterprise benefits are better handled. Under the planned economic system, the government was empowered to intervene in the microeconomic activities of SOEs. What to produce, how much to produce, for whom to produce and the price of products were all stipulated by the government. At the same time, the government was responsible for the outcome. Even if a SOE suffered from losses, its workers could still receive the same salary and welfare. Unlike SOEs, where workers eat in a big pot and where wages are fixed without regard to their contribution, most TVEs adopt the principle of income distribution according to work or earnings. Workers in TVEs are paid according to their contribution or efforts.

Secondly, TVEs have more independent decision-making power than SOEs. They are entitled to independently decide what to produce, how to produce, the price of products, and the number of workers to be employed, salaries, and so on, TVEs can decide whether or not to lay off

employees when a job contract runs out. This allows TVEs to employ high quality workers at a lower rate of pay, placing them in an advantageous position when competing with SOEs.

Thirdly, unlike employees at SOEs who believe they are always entitled to the “iron rice bowl” (铁饭碗 tie fan wan), employees at TVEs face the pressure of being laid off at any moment. Since marginal productivity in the agriculture sector is much lower than in the industrial sector, and farmers earn less farming land than working for TVEs, it becomes possible for excess rural workers created by the responsibility contract reform to flow speedily from farming to non-farming industries.

Fourthly, ambiguous property rights and less control of high-level government bodies over TVEs make gives township and village government officials more power of control over the income distribution. Local government officials can use the earnings of TVEs in various disguised forms. The more the TVEs earns, the more the township and village governments can use, giving local officials great impetus to nominate able managers for TVEs.

Though TVEs may be more efficient than SOEs and as efficient as private enterprises in the short run, in the long term they may be in a disadvantage competitive position and in the end may be replaced by other types of private enterprises.

As property rights are ambiguous for TVEs, it is common for the microeconomic activities of both TVEs and SOEs to face strong intervention from local governments. Some local governments regard themselves as the owners of TVEs, and interfere in their operating activities. The interference typically forces TVEs to focus too much on their growth rate, ignore the role of the market economy, and depart from the objective of profit maximization. For example, some local governments have linked their political performance with the operation of TVEs, even stipulating unrealistic growth targets of as high as 30%-40%.

Some local governments also see TVEs as a secondary fiscal resource, leading to distortions of income distribution. In order to secure sufficient taxes and profits, they sign a contract stipulating how much profit the enterprise has to turn in. However, since the budget is softly constrained, if the enterprise goes well, the contractors earn money; but if the enterprise suffers a loss, the contractors might not be able to take responsibility for it. As a result, at least some of the assets of enterprises are finally either consumed away or go to personal pocket, leaving a mass of non-performing loans for the banking sector.

Another problematic phenomenon is that township and village government officials often arbitrarily withhold the profits of TVEs for long periods of time, making it difficult for TVEs to survive.

Finally, Some government officials use their public power to arrange work in TVEs for their children, relatives and friends, resulting in an increased burden on the enterprises.

In summary, TVEs may indeed be more efficient than SOEs because of their flexibility. However, in the long run, TVEs will face the same problem as SOEs, such as soft constraints, lack of real ownership of assets, excessive intervention in enterprise operations, departure of the objective from profit maximization, and serious corruption. With the progress of SOE reform and liberalization, the problem of blurred property rights is becoming obvious. The internal transaction costs of TVEs are increasing and their economic inefficiency is deteriorating. They are facing increased competition from SOEs, foreign funded enterprises, private enterprises, and

so on. As a result, many are on the brink of insolvency. Without further reform of property rights, it will be difficult for them to survive.

To overcome these weaknesses, various reforms have been attempted over the past years to clarify property rights. Some TVEs with a certain scale and capabilities have been reorganized into standardized shareholding corporations or limited liability corporations in accordance with the provisions of "Corporation Law." Some corporations have been successfully listed in Shanghai and Shenzhen as well as in foreign stock exchanges. Most small- to middle-sized TVEs have been transformed into cooperative stock companies. Through reforms of the cooperative stock system, a series of limitations on TVEs are being overcome. Firstly, since the cooperative stock system helps to clarify the property rights of collective assets of towns and villages, it helps to transfer government functions from direct intervention in the internal business of TVEs to indirect management over property rights, investment control, liquidation of profits and losses and returns on collective assets. Secondly, efficient with the establishment of supervision mechanisms, intentional appropriations of collective assets are reduced. Thirdly, since capital, labor and technology inputs are closely associated with earnings, momentum and encouragement mechanisms were formed. Fourthly, the cooperative stock system reform makes TVEs' transfer of property rights possible. Through joint ventures, auctions, mergers and purchases, a mixed ownership structure that helps TVEs escape from malpractice by local government has been formed. In the process of investigating TVE reform, we have come to understand that the smaller the proportion of property rights owned by the government, the better the enterprise runs.

In late 1980s and early 1990s, the great success of agricultural reform and the rapid development of individual businesses and TVEs came as a great shock to the state-owned sector. With the spread of agricultural reform, the advantages of the urban area and state-owned sector were gradually disappearing. People working and living in urban areas and the state-owned sector made strong demands for higher living standards. This led to urban reform and SOE reform. Learning from the experiences of rural reform, SOEs and collective enterprises also began to adopt a contract responsibility system. This was the second phase. However, unlike the rural contract responsibility system reform, which gave farmers long-term land using rights, contract periods for SOEs were usually shorter, in many cases lasting just two or three years. This led to "myopic behavior," meaning that the concern of contractor was only to maximize revenues within a short period of time, making utmost efforts to get bank financing, increasing investment and output and making heavy use of existing machines and facilities. The value of state-owned assets and the long-term development of SOEs were ignored.

It appeared that this process of SOE reform had nothing to do with state-owned property rights. In fact, however, the privatization process of property rights began simultaneously with the contract responsibility system. Under the contract responsibility system in the early stage of SOE reform, managers and workers signed a contract stipulating how much money the contracted enterprise would pay to the government over a certain period of time. Once the enterprise fulfilled their commitment to the government, the managers and workers could share the extra profits. This indicates that the interests of the SOEs were directly linked to short-term profits.

Assuming that a contracting enterprise with labor (H), capital (K) and technological level (A) faces fixed labor costs (W) and capital costs (R) (in either a competitive economy or a planned economy), the production function follows the Cobb-Douglas style $GDP = AK^\epsilon H^{1-\alpha}$, where GDP represents the output of a representative enterprise. The enterprise's objective is to

maximize the objective function:

$$O = \kappa(AK^\varepsilon H^{1-\alpha} - C - HW)$$

Since C , the contracted profit paid to the government, is fixed in the contract; k , the ratio of total product less labor costs and fixed costs paid to the government, is also fixed in the contract; and the wage rate and number of employees cannot be changed under the labor system (meaning 鉄飯碗), the objective is equivalent to maximizing $GDP = AK^\varepsilon H^{1-\alpha}$. Thus, managers and workers tried to maximize their interests by increasing investment. This inevitably led to excessive demand for investment³. Theoretically, when an unlimited demand for investment is satisfied, return on capital must approach zero. Hence, this kind of reform led to overheating investment and subsequent long-term inflation in the mid 1990s (Zhao, 2002 [43]).

It seems that it is only the reform before 1995 that can be regarded as gradualism. A significant characteristic of first two periods is that it was a Pareto improvement process. Under this process the existing SOE system was either maintained intact or at least not clearly privatized, while the agricultural sector and private sector developed quickly. The status of workers in SOEs did not deteriorate, but those in the agricultural sector and private sector experienced absolute improvements. In this sense the process was a Pareto improvement.

By 1994, inflation worsened under the effects of the contract responsibility system and soft budget constraints⁴ of SOE, reaching over 20%. Curbing inflation and avoiding the risk of banking sector was actually the most important policy issue for the third period. On January 1, 1994, the PRC introduced a series of comprehensive tax and fiscal reforms, which put the country more in conformity with international practice. Fiscal policies were tightened. Beginning from 1993, monetary and credit policy was tightened. In 1995, the PRC passed a "Central Banking Law," making monetary policy independent from local governments. The budgetary constraints on local governments became stricter in the late 1990s. These tougher budget constraints created difficulties for SOEs and collective enterprises. A great number of small and medium sized SOEs suffered losses, and a tremendous amount of non-performing loans were accumulated in the banking sector. The government was unable to help the many ill-performing enterprises and the banking system came to the verge of collapse. In 1995, the central government formulated a policy called "抓大放小 Zhua Da Fang Xiao," meaning "keep the larger ones and let the smaller ones go" This policy marked a departure from gradualism and the beginning of radical reform. The government decided to keep 500 to 1,000 large SOEs under state ownership, and to transform all other small SOEs through policy package measures including reorganizations, mergers and acquisitions, leases, and sales.⁵

³ In the PRC, economic overheating and high inflation are seen as outcomes of social aggregate demand exceeding supply (excessive demand). Since aggregate demand is composed of aggregate investment, consumption and net exports, and consumption is stable and net exports are small or nearly zero in the long run, excessive demand is mainly caused by excessive investment (investment demand exceeding supply). At the micro level, this means investment beyond the point at which the marginal return exceeds the relevant opportunity cost of capital. Under the assumption of profit maximization, if a firm's objective function deviates from profit maximization, the marginal return to capital will be lower than the level of profit maximization. This case is allowed to exist in the PRC because of soft budget constraints (see Chapter 5).

⁴ "Soft budget constraints" are a widespread phenomenon in the socialist system, meaning that since financial resources (banking loans, fiscal revenue stock market quotas, etc) are mostly controlled by the government (even in market economy countries there are light soft constraints), the supply of funds is softly constrained and the excessive demand for loans is easy to satisfy.

⁵ In 1997 the 500 largest state owned enterprises held 37% of all the assets of state industrial firms, and contributed 46% of the tax revenues collected from all state firms and 63% of total profits in the state sector. By contrast, smaller

2.3 Future Reform and the Power of Control of the State-Owned Sector

For recent years, Chinese academics and government officials have had philosophical arguments about the “power of control of the state-owned sector over the whole economy.” The power of control of the state owned sector is a new concept put forward in the report of the Fifteenth National Congress of the Chinese Communist Party in 1997. With the progress of economic reform, the ratio of GDP produced by the public economy to total GDP continues to decline. Some people are concerned about the PRC’s privatization and movement to capitalism, and wonder whether the PRC will be able to maintain its socialist system. To clarify this issue and erase people’s misgivings during the pursuit of economic reform, the Fifteenth National Party Congress put forward this concept, which at the time was considered to be a theoretical breakthrough in the PRC reform process (reference [48]).

According to Zhang Zhuoyuan, 1997 [41], the control power of the state-owned economy has two meanings. One is that the state-owned economy controls the lifeline of the national economy; the other is that state-owned economic elements play a dominant role in large-sized enterprises and corporation groups. This means that, by selling part of the equity of stated-owned enterprises, and adjusting capital input, the influence and role of the state-owned economy will be enlarged. So long as the public system is maintained as the main body and economic lifelines are controlled by the nation (government), control and competitive power will be strengthened, and the weight of the state-owned economy, whether growing or shrinking, will not impact the characteristic of socialism.

As stated above, traditional socialist theory maintains a basic principle that “social productivity determines the relations of production, and the economic base determines the upper social and political structure.” Traditional Marxist theory also argues that the fundamental difference between capitalism and socialism is that in socialist countries, property rights are held by the public sector. Therefore the PRC government seemed to assume that only when SOE sector took a relatively larger proportion, could the socialist system be guaranteed. Based on this understanding, in the early stage of SOE reform, the government always emphasized the importance of the power of control of the state-owned sector.

However, the concept of the power of control power of the state-owned sector has changed along with economic progress. At the initial stage of economic reform, the government insisted that “the planned economy is the central pillar and the market economy should be a supplement.” Later, the private sector came to be considered as an important supplement to the socialist public system, and finally it was positioned as an important component of the socialist market economy. More recently a National Statistical Bureau report in 2000 argued that SOEs should only exist in a limited number of crucial sectors such as national defense and critical

firms owned by local governments were performing poorly: in 1995, 72% of firms owned by local governments were in the red, compared with only 24% of the centrally-owned firms. (International Finance Corporation, 2000)

high-tech industries, and even in such a case so long as these sectors are state-owned and its control power is maintained, there must be no significant change in the socialism.

It seems that the role of state ownership now only has political implication rather than economic one. We could say that regardless of such political and philosophical discussion, reality is going ahead much faster. Political and philosophical discussion might be important but economic force seems to be dominating political force. As a sound and competitive market environment is built, the power of control power of the SOEs may become less important for the government. The government will finally realize that the economy, whether private or state-owned, can be controlled through sound laws and regulations and a competitive market policy.

On the other hand, if the government tries to maintain its control over the whole economy through the ownership of SOEs and delays political reform, there may be a spread of corruption and “myopic behavior” in the economy, leading to excessive demand for investment and eventually causing long-term inflation. The value of state-owned assets, the quality of banking assets and the long-term development of SOEs may be ignored. If the government fails to demonstrate the ability to deal with the many ill-performing enterprises and banking system, more radical reform will become inevitable.

3. The Growing Role of Private Sector

3.1 Concept of the Private Sector

What is the definition of private enterprises in the PRC? It seems first that there is no clear definition, and second that it is fairly complex. There are many concepts relating to “private,” including individual business, private enterprise, private sector, private economy (Ming ying jing ji 民营经济) and the privately operated economy. However, it seems that none of these concepts have a clear definition, and there has been a heated debate among economists on what comprises “private enterprises.” (See Appendix 1.)

Some experts see private enterprises as equivalent to either the private sector or the private economy. Some experts classify enterprises into state-owned and private enterprises, using ownership as a criteria. Some with a broader perspective insist that foreign-invested enterprises and non-public shareholding companies not controlled by the government should be included within the private sector. However, many Chinese private enterprises have mixed ownership, making it difficult to determine to whom they belong. For example, a foreign-funded company may be a joint venture, with 25% ownership by foreign companies and 75% ownership by Chinese private companies. Though Chinese hold the largest share in such enterprises, in accordance with the enterprise registration regulations, the status of these companies is foreign funded rather than private. In our study, the private sector mainly represents individual and private enterprise as stipulated in the Provisional Act on Private Enterprises. In some cases, due to limited data, the concepts of non-state owned sector or non-public sector are used.

The concept of private enterprise is very narrowly defined in the official document According to the “Provisional Act on Private Enterprises of the PRC”, and taking effect on July 1, 1988, a private enterprise is defined as a profit-making unit invested in and established by natural persons or controlled by natural persons using employed labor. This definition includes private

limited liability corporations, private shareholding corporations, private partnership enterprises and sole private-funded enterprise registered in accordance with the corporation law, partnership enterprise law and interim regulation on enterprises. Private enterprises are firms whose assets belong to individuals and that employ more than eight workers. At one time (see Chapter 1), individual enterprises were not allowed to employ more than seven workers. Therefore only profit-making units employing more than eight workers are officially called private enterprises. In PRC official statistics, only domestic Chinese enterprises are included in “private enterprise,” and individual business, foreign-invested enterprise and collective enterprise are excluded from this category. However apart from the difference of the number of the employees, there is no significant difference between private enterprise and individual enterprise in the aspect of private ownership. Accordingly when discussing private sector development, at least individual enterprise should also be included.

The “private sector” seems to be a broader concept, but it is also not clearly defined. The “private economy” is a concept based on economic components. In accordance with the classification of economic components issued by the National Statistical Bureau, it is defined as the portion of the economy that belongs to individuals. In addition to individual and private enterprises, many foreign funded enterprises and shareholding enterprises also contain private economic components. However, most official statistics are not based on this economic component classification, but rather on the classification of the registered status.

There is some evidence that private sector development may be undervalued. Some private enterprise, in order to receive preferential tax treatment, may be registered as foreign funded enterprise. Some, in order to obtain support from local governments and avoid political shocks, may be registered as collective enterprises. These nominally private enterprises are usually called “false collectives” or “red hats” (hong maozi 红帽子). Considering these factors, the number of private enterprises is likely much larger than official statistics show. Since 1995, the private sector in the PRC has been growing at a surprising pace. Private enterprises have grown not only through their own efforts but also through restructuring and mergers of SOEs and collective enterprises. Since the registered status of these restructured enterprises may not be changed immediately after the restructuring, official statistics based on registered status may underestimate the real development of the private sector.

3.2 Rapid Growth of the Number of Private Enterprise

Since 1978, along with the rise of its political position, the private sector has played an increasingly important role and contributed to employment, tax revenue, economic growth and the cultivation of the market system. The number of private enterprises increased from 90,000 in 1989 to 3 million in 2003, an increase of more than 30 times. The number of individual business during the same period almost doubled from 12.47 million to 23.53 million. The number of foreign funded enterprises rose from about 16,000 in 1989 to 226,000 in 2003, nearly 14 times. In comparison with the rapid increase in the number of these enterprises, the number of SOEs and collective enterprises fell from 1.55 million in 1992 to 1.05 million in 2003 and from 4.16 million to 1.63 million, respectively. In recent years, the number of all types of enterprises except private enterprise has been declining. (Table 3.1. and 3.2.)

It should be noted that Deng Xiaoping’s famous South China Tour (南巡講話 Nan xun jiang hua) of 1992 led to high investment, and the number of private enterprises and registered capital registered a sharp increase in 1994 and 1995. However, this resulted in high inflation, and after 1994 the central government adopted tight monetary and fiscal policy in order to curb excessive

investment and economic overheating. As a result, investment growth slowed. Because of this, growth in the number of private enterprises slowed somewhat, although it still continued to be high relative to those of SOEs and collective firms. (Chart 3.1. and 3.2.)

Table 3.1. Number of Enterprises

Year	State	Collective	Foreign	Private	Individual
1989			15919	90581	12471930
1990			25389	98141	13283055
1991			37215	107843	14168386
1992	1547190	4159417	84317	139633	15339113
1993	1951695	5156519	167507	237919	17668669
1994	2166331	5456818	206096	432240	21865978
1995	2218612	5337734	233564	654531	25284968
1996	2163346	5013416	240447	819252	27036798
1997	2078348	4470469	235681	960726	28508751
1998	1836289	3736367	228070	1200978	31202000
1999	1649870	3172471	212436	1508857	31601000
2000	1492164	2627061	203208	1761769	25713618
2001	1317822	2208516	202306	2028548	24330000
2002	1172479	1885879	208100	2435282	23775000
2003	1049700	1625500	226373	3005524	23531857

Source: Statistical Collection of State Administration for Industry and Commerce, 2003.

Chart 3.1. Number of Enterprises

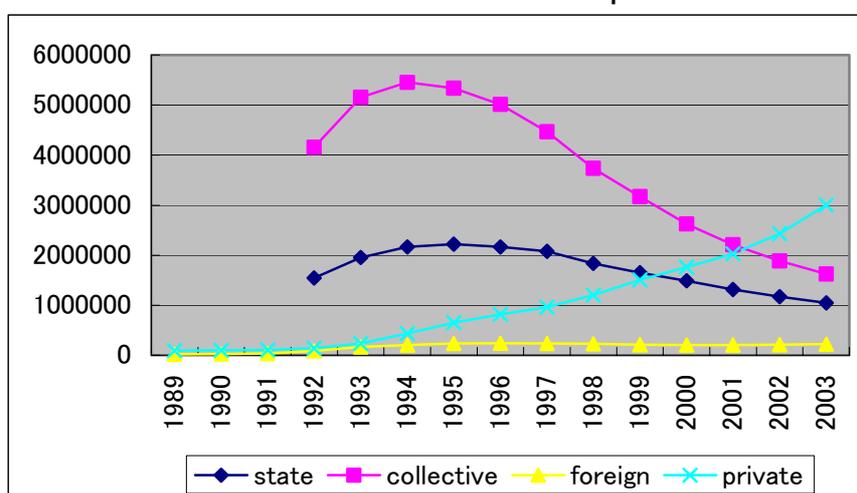


Table 3.2. Growth of Number of Enterprises

Year	State	Collective	Foreign	Private	Individual
1990				0.08346	0.06504
1991				0.09886	0.06665
1992				0.29478	0.08263
1993	0.261445	0.239722	0.986634	0.703888	0.15187

1994	0.109974	0.058237	0.230372	0.816753	0.237557
1995	0.024133	-0.02182	0.133278	0.514277	0.156361
1996	-0.02491	-0.06076	0.029469	0.251663	0.069283
1997	-0.03929	-0.1083	-0.01982	0.172687	0.054443
1998	-0.11647	-0.16421	-0.03229	0.250073	0.094471
1999	-0.10152	-0.15092	-0.06855	0.256357	0.012788
2000	-0.09559	-0.17192	-0.04344	0.167618	-0.1863
2001	-0.11684	-0.15932	-0.00444	0.151427	-0.05381
2002	-0.11029	-0.14609	0.02864	0.200366	-0.02281
2003	-0.10472	-0.13807	0.087809	0.234159	-0.01023

Source: Statistical Collection of State Administration for Industry and Commerce, 2003.

Chart 3.2. Growth of Number of Enterprises

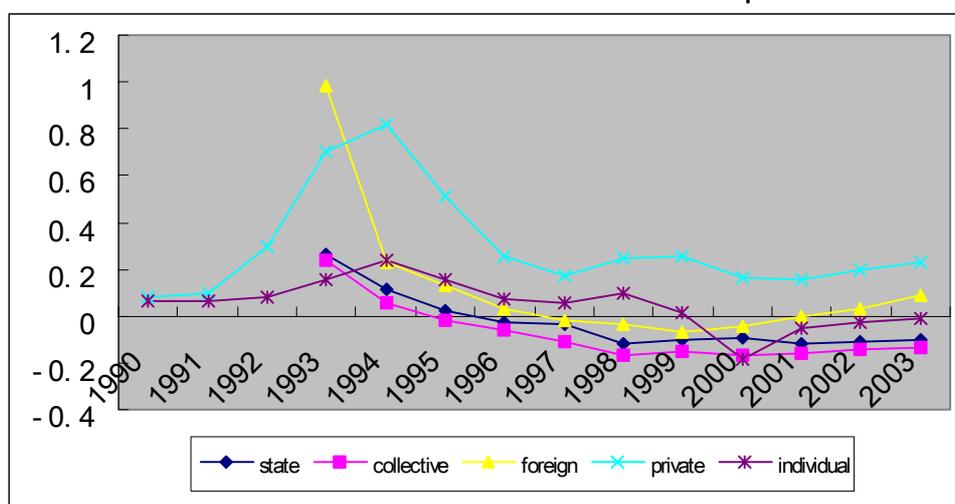


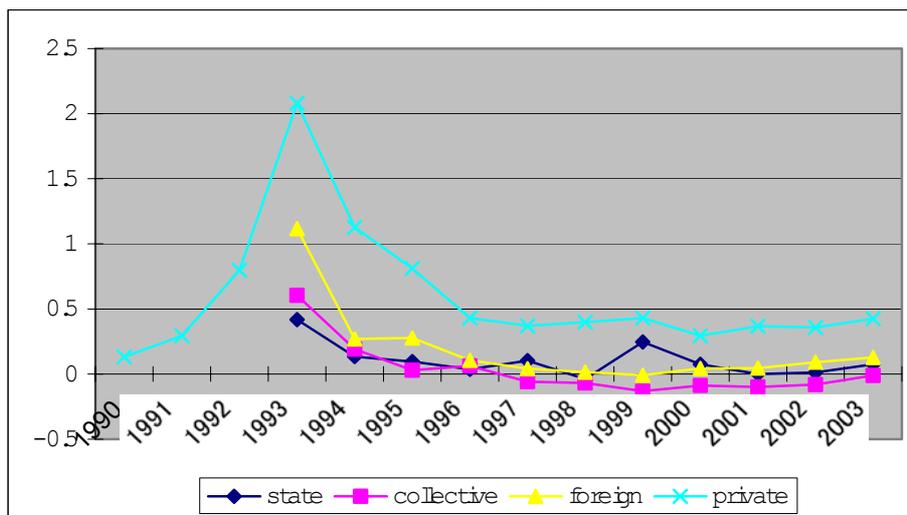
Table 3.3. Growth of Registered Capital

Year	State	Collective	Foreign	Private
1990				0.130952
1991				0.294737
1992				0.796748
1993	0.418654	0.604708	1.117746	2.081448
1994	0.133807	0.192197	0.271318	1.126285
1995	0.096817	0.029363	0.278114	0.810773
1996	0.037266	0.063705	0.106138	0.430969
1997	0.103672	-0.05914	0.041517	0.369936
1998	-0.03777	-0.06889	0.016252	0.398638
1999	0.24742	-0.12979	-0.00791	0.430936

2000	0.074787	-0.08859	0.04392	0.293672
2001	0.001839	-0.09912	0.045133	0.3685
2002	0.013746	-0.07976	0.091593	0.359324
2003	0.07382	-0.01136	0.127728	0.426119

Source: Statistical Collection of State Administration for Industry and Commerce.

Chart 3.3. Growth of Registered Capital



3.3 Contribution of Private Enterprises to Employment

The reform of SOEs has been accompanied by increasing unemployment. This has brought with it social and economic instability. In the face of this problem, the government must find a way to address the unemployment issue. In fact, the private sector has become an important substitute for SOEs and has made a great contribution to solving the problems of unemployment and lay-offs.

According to recent PRC statistics, in 2003 the number of employees working for SOEs was 68.8 million, a sharp decline compared with 112.6 million in 1995. By contrast, workers in individual and private enterprises in 2003 reached 89.5 million, exceeding SOE employees by about 20 million, and registering a big increase over 55.7 million in 1995.

Looking at the breakdown, the number of employees of individual business rose steeply from just 2.3 million in 1981 to 46.5 million in 2003, an increase of about 20 times. The number of employees rose even faster in private enterprises than in individual business, from 1.6 million in 1989 to 43.0 million in 2003, meaning an increase of 27 times within only 14 years. Foreign funded enterprises also employ many workers, even though their share of total employees is still lower than individual and private enterprises (Table 3.4.) Employees in private enterprises now make up 19.2% of total national employees. (Table 3.5.)

Table 3.4. Contribution to Employment of Individuals and Private Enterprises (Unit: 10,000 people)

Year	State	Growth	Individual	Growth	Private	Growth	Foreign	Growth
1980	8019							
1981	8372	4.4%	227					
1982	8630	3.1%	320	41%				
1983	8771	1.6%	746	133%				
1984	8637	-1.5%	1304	75%				
1985	8990	4.1%	1766	35%				
1986	9333	3.8%	1846	5%				
1987	9654	3.4%	2158	17%				
1988	9984	3.4%	2053	-5%				
1989	10108	1.2%	1941	-5%	164		47	
1990	10346	2.4%	2093	8%	170	4%	66	40%
1991	10664	3.1%	2258	8%	184	8%	165	150%
1992	10889	2.1%	2468	9%	232	26%	221	34%
1993	10920	0.3%	2939	19%	373	61%	288	30%
1994	11214	2.7%	3776	28%	648	74%	406	41%
1995	11261	0.4%	4614	22%	956	48%	513	26%
1996	11244	-0.2%	5017	9%	1171	22%	540	5%
1997	11044	-1.8%	5442	8%	1350	15%	581	8%
1998	9058	-18.0%	6114	12%	1710	27%	587	1%
1999	8572.1	-5.4%	6241	2%	2022	18%	612	4%
2000	8101.9	-5.5%	5070	-19%	2406	19%	642.3	5%
2001	7460	-7.9%	4760	-6%	2714	13%	671	4%
2002	7163	-4.0%	4743	0%	3409	26%	758	13%
2003	6876	-4.0%	4647	-2%	4299	26%		

Source: Statistical Collection of State Administration for Industry and Commerce, 2003.

Table 3.5. Distribution of Enterprises and Employees⁶

	Number of enterprises (10,000)	Ratio (%)	Employees (10,000)	Ratio (%)
Total	302.6	100.0	16502.2	100.0

⁶ Table 3.1, 3.4 and 3.5 are not consistent because they come from different sources, which adopt different statistical standard. For example, a parent company headed by one boss may include several subsidiary companies, which are allowed to register as different enterprises. However, China Second National Census regards them as one company. So the number of enterprises in Table 3.5 is less than the number shown in Table 3.4.

State	36.9	12.2	5056.8	30.6
Collective	85.8	28.3	3763.1	22.8
Private	132.3	43.7	3170.3	19.2
Share holding	30.0	9.9	2746.6	16.6
Foreign	5.7	1.9	644.0	3.9
Hong Kong, China, Macao and Taipei, China	8.2	2.7	997.4	6.1
Others	3.7	1.3	124.0	0.8

Source: China Second National Census of Basic Units, Compiled by Census Center of National Bureau of Statistics, 2003

Though private enterprises have played a very important role in alleviating unemployment pressure, they have not been able to completely solve the unemployment problem. While in some provinces where the private sector plays a vital role in the economy, private enterprises have recruited more than the number of workers laid off by SOEs (for example, in Jiangsu Province 127,000 employees were laid off by SOEs, but private enterprises absorbed 503,000 workers, reducing the unemployment ratio by 0.1% in 2003, according to *China Economic News* April 26, 2004 [7]). SOEs usually employ more workers than private enterprises due to their strong motivation to expand production scale, on one hand, and their inefficient use of labor on the other. In the industrial sector for example, from 1996 to 2000, the number of workers in SOEs has fallen from 42.8 million to 20.9 million, and workers in collective-owned enterprises have decreased from 14.3 million to 5.6 million. However, workers in other enterprises increased from just 7.4 million to 14.4 million. It is obvious that the development of the non-public industrial sector has not been sufficient to offset the decline in the employment in the public sector. To absorb all the laid off workers from SOEs, more policy efforts will be necessary, and there is still a long way to go. (Table 3.6.)

Table 3.6. Number of Workers in the Industrial Sector
(Unit: 10,000 persons)

Year	1996	1997	1998	1999	2000
State-owned	4278	4040	2721	2412.1	2096
Collective-owned	1429	1327	802	673.4	563
Others	743	847	1230	1342.8	1443
National total	6450	6215	4753	4428.4	4102

Source: China Statistical Yearbook, National Bureau of Statistics, 2003

3.4 The Growing Share of Private Enterprises in Output and Investment

In 1991, SOEs held a 68% and 66% share of industrial output and investment in fixed assets, respectively. With the development of the private sector, including foreign-invested enterprise, these shares fell to 41% and 43% in 2002. (Table 3.7.)

Taking into account that these are designated enterprises, which are relatively large and mostly private, and that other non-SOEs are excluded from the statistics, the output ratio and investment ratio of SOEs would likely have been smaller if these non-designated enterprises had been included. The size of each private enterprise is still relatively small, and we do not yet see a tendency for them to grow. It seems that the increase in employees in the private sector in the 1990s was primarily driven by an increase in the number of enterprise and not by an increase in the number of employees per enterprise. (17.3 employees per enterprise in 1990 versus 14.3 in 2003 from Table 3.1. and 3.4.) It can be concluded that the private sector in the PRC is not yet mature and may be sensitive to outside shocks, but at the same time its growing share in terms of industrial output and investment seems to indicate that it possesses strong energy and flexibility.

Table 3.7. SOE Industrial Output and Investment
(Unit: 100 million RMB)

Year	Total output	SOE output	Ratio	Total investment	SOE investment	Ratio
1991	22088.65	14954.86	68%	5594.5	3713.8	66%
1992	27724.21	17824.15	64%	8080.1	5498.7	68%
1993	39693.02	22724.67	57%	13072.3	7925.9	61%
1994	53373.29	26200.84	49%	17042.1	9615	56%
1995	66390.53	31220	47%	20019.3	10898.24	54%
1996	64887.81	36173	56%	22913.5	12006.2	52%
1997	70747.67	35698	50%	24941.1	13091.7	52%
1998	67737.14	33621.04	50%	28406.2	15369.3	54%
1999	72707.04	35571.18	49%	29854.7	15947.8	53%
2000	85673.66	40554.37	47%	32917.7	16504.44	50%
2001	95448.98	42408.49	44%	37213.49	17606.97	47%
2002	110776.5	45178.96	41%	43499.91	18877.35	43%

Source: China Statistical Yearbook, 2003.

3.5 Regional Distribution

The regional distribution of private enterprise is severely unbalanced. They are generally concentrated in the coastal area, and in particular in the five biggest coastal provinces of Guangdong, Shandong, Shanghai, Jiangsu and Zhejiang, all relatively developed areas. These five largest provinces account for 60.7% and 47% of total private income and private capital in the country. The eastern coastal area as a whole accounts for more than 70 % of total private income and capital. (Table 3.8.) The background for this seems to be first that in the coastal areas, innovative entrepreneurship has developed along with economic reform and the open policy. Second, these are advanced agricultural areas with agro-industry developed originally in the form of township village enterprise, which were transformed into private enterprise later.

Third, thanks to the high economic growth, huge consumer markets have emerged in these areas.

Table 3.8. Distribution of Capital and Income of Private Enterprises by Region, 2001 (Unit: 100 million, %)

Provinces	Income	Ratio	Capital	Ratio
Total	31882.52	100	14068.35	100
East	24854.42	77.95626	10200.91	72.50964
Middle	4245.89	13.3173	2186.41	15.54134
West	2782.18	8.7263	1681.06	11.9492
Biggest five	19373.69	60.76587	6624.74	47.08967

Source: China Second National Census of Basic Units, Census Center of National Bureau of Statistics, 2003

There are two famous models of private sector development in the provinces, namely the “Guangdong Model or 广东模式” and the “Wenzhou Model or 温州模式”. The characteristics of the “Guangdong model” are that private enterprises were developed as equipment suppliers for foreign-invested enterprises, and are trying to reduce costs as much as possible. The most common industries are electric appliances, IT-related high-tech equipment and automobiles. Jiangsu Province is characterized by the development of the agro industry, while Zhejiang Province is famous for its spirit of entrepreneurship, which gave birth to the “Wenzhou model.” Wenzhou consists of about 30 industrial clusters (kuai zhuang jingji or 块状经济), with each including several hundred private enterprises. Most enterprises are in light industries. Private enterprises in Wenzhou are quite close to Western-style enterprises. It should also be noted that both provinces are in the backyard of Shanghai.

Box 2: The case of Zhejiang Province

The China Statistical Information Network (CSIN), released by the China National Statistical Bureau in April 7, 2004, provides some interesting hints about why private enterprises developed rapidly in Zhejiang Province in comparison to other provinces. According to this report, the industrial output of private enterprise in Zhejiang Province in 2002 was 366.7 billion RMB or 47.1% of total provincial output, a much higher figure than in other provinces, such as Jiangsu with 65.8 billion (18.8%), Shandong with 59.8 billion (18%), and Shanghai with 318.1 billion (38.1%). Although the share of the non-state sector in Guangdong Province in 2002 was 54.3%, slightly higher than in Zhejiang, the non-state sector in Guangdong includes foreign invested companies, and investment in Hong Kong, China and Macau. If this factor is taken into account, even the private sector in Guangdong may be smaller than that of Zhejiang. In Zhejiang, the number of private enterprise grew very rapidly. In 2003, 71,434 private enterprises were newly registered, meaning that on average about 230 private enterprises completed registrations every day. As of the end of 2003, there are a total of 1.89 million private enterprises, exceeding the number in Guangdong and registering the second largest figure nationwide.

It seems that there are several reasons why private enterprises have developed so rapidly in Zhejiang. These factors primarily relate to the innovative market environment and its development model.

Innovative market environment: Zhejiang is located on the seacoast front line, and before the economic reform started, it was considered to be a very important strategic place from the standpoint of national security. Accordingly, SOEs in key heavy industries were not located in this region, and national investment here was also relatively small compared to other regions. Some places such as Wenzhou were called “kongbai xian 空白县” (empty counties) of SOEs. In addition, the province has only scarce natural resources. As a result the region’s economy lagged, and the people’s standard of living remained low. However, it can be said that the very these circumstances put pressure on the people of Zhejiang and nurtured their innovative “capitalistic” spirit and culture.

Generous policy of the government: It is pointed out that during the early stage of economic reform, the local government, taking account of the difficult situation of this region, took a very flexible and generous policy, which accelerated private sector development. The CSIN report introduces one interesting anecdote. In the 1980s, 85% of Wenzhou’s total fiscal revenue came from private enterprises. During the 1980s, the committee of Zhejiang Province reshuffled the leaders of Wenzhou three times, and every new leader, after taking the position, tried to develop SOEs and collective firms in order to meet the requirements of the upper bureaucracy. However, they all quickly realized that private enterprises would need to play a vital role in the Wenzhou economy and started to support them, respect their spirit of innovation, and build economic democracy.

Demand-supply situation: At the early stage of private enterprise development in Zhejiang, from the macro economic point of view, aggregate demand exceeded aggregate supply, and all commodities were immediately sold out after being produced. In this sense, the risks of going to the market to compete with others were not very high for private enterprises, and an increasing number actively produced commodities and sold them on the market. Consequently the private sector developed very rapidly.

Concentration on light industries: In 2002, the output of private enterprises accounted for almost 100% of total industrial output in Zhejiang; among this the shares of textile and fabrics, machineries, electric equipments and metals were about 30%, 7.7%, 7.3% and 6.1%, respectively. The success of these industries primarily relied on the following factors. First, they do not necessarily require high technology, and it is easy for newly developed private enterprises to go to the market (in other words, barriers to entry are low). Secondly, high quality labor is also not necessarily required; it is good enough to simply absorb excessive labor force. Thirdly, private enterprises normally face serious difficulties with financial resources, and can only rely on their own funds or friends. However, starting up such light industries does not require a tremendous amount of money and the cash flow turnover is relatively fast. Fourth, since the rate of return in these industries is not very high, local governments tend to neglect these industries, and do not protect them, As a result, it is very easy for private enterprise to go to the market and make profits. Last, the size of these industries is small and most of their commodities are daily consumption goods, so that they are not much affected by various policies of the government.

Cluster development model: The size of private enterprise in Zhejiang is usually very small, but it is common for many small enterprises to work together, producing similar or complementary goods, and thus to develop one big economic zone (“kuai zhuang jinji” or cluster economy). Thanks to the division of labor in the cluster, economic efficiency is enhanced and sound market competition is enhanced. That is the so called “small dog economy.” The CSIN report discusses one case, of the motorcycle industry in Taizhou. There are more than 1,000

enterprises producing motorcycle equipment. They are all very small enterprises but they have achieved a division of labor and work as if they were one big manufacturing enterprise.

Sector-wise, although there are no detailed statistics, it is widely reported that industrial manufacturing for a wide range of wholesale and retailing businesses accounts for almost 80%, and that in particular most retailing businesses, such as small shops and restaurants, are managed under private ownership. In fact, it is quite impressive that unlike many socialist countries in the past, the quality of service provided by retailers is relatively high in the PRC. It should also be noted that in recent years, many high-tech knowledge-intensive enterprises in areas such as information, communication and technology (ICT), or joint ventures between industry and universities, have emerged. It is widely expected that the private sector will further develop, particularly in those new areas. One example is a venture company in Beijing downtown area set up by a professor of the People's University of China to provide innovative financial service information.

In the case of the Beijing Municipality area, it is reported that the development of non-public sector has promoted the optimization and upgrading of the industrial structure. With the development of the non-public sector, the share of primary and secondary industries declined from 5.2% and 42.3% in 1996 to 3% and 34.8% in 2002 respectively, while the share of tertiary industry increased from 52.6% to 62.2% during the same period.

Table 3.9. Industrial Structure (Beijing Municipality)

	Primary industry	Secondary industry	Tertiary industry
1996	5.2%	42.3%	52.6%
2002	3.0%	34.8%	62.2%

Source: *China Economic News*, April 19, 2004

3.6 Contribution of Individuals and Private Enterprises to Tax

The development of the private sector creates a great deal of tax income for the government. Government tax income from individual and private enterprises has grown rapidly. From 1992 to 2002, the average growth rate of private and individual taxes was over 30%, and its contribution to the total national tax has reached over 10%. (Table 3.10.) In urban areas, the contribution of the private sector to the tax revenue must to be much more significant. In Beijing Municipality, for example, the non-public sector contributed more than 65% of total tax revenues in 2002 (*China Economic News* April 19, 2004 [7]).

It appears from official statistics that the tax contributions of the private sector to total national tax are still not very high. However, if we take account of the fact that there are many private enterprises that are registered as collective enterprises (false collective enterprises or "jia ji ti 假集体" in Chinese), the contribution of individual and private enterprises may be severely undervalued.

Table 3.10. Tax Contributions of the Private Sector

(Unit: 100 million RMB, %)

Year	Total revenue	Individual & private	Growth rate	Ratio
1992	3484.37	181.16		5.2
1993	4348.95	325.31	80.0	7.5
1994	5218.10	377.94	16.2	7.2
1995	6242.20	436.84	15.6	7.0
1996	7407.99	458.05	4.9	6.2
1997	8651.14	551.44	20.4	6.4
1998	9875.95	701.00	27.1	7.1
1999	11444.08	830.77	18.5	7.3
2000	13395.23	1177.10	41.7	8.8
2001	16386.04	1578.50	34.1	9.6
2002	18903.64	1950.58	23.6	10.3

Source: Statistical Collection of Administration for Industry and Commerce, 2002.

4. Development of the Private Sector: Constraints and Some Policy Implications

Notwithstanding the rapid progress of the private sector over the past two decades or more, it appears that there are still quite a number of constraints to the further development of the sector.

4.1 Lack of a “Level Playing Field”

Unlike existing SOEs and privatized former SOEs (in particular old SOEs under local government control), newly developed private enterprises have serious disadvantages in receiving bank loans and getting approval from authorities, since they do not have close connections with local authorities. (See Section 1.6.)

First, government procurement and bidding is generally only open to government departments and SOEs. Private enterprises are excluded.

In investment policy, private enterprises do not enjoy the same preferential tax treatment as SOEs and foreign-invested enterprises (Kanamori [32]).

For example, foreign-invested enterprises enjoy a treatment called “er mian san jian (二免三减)” which is a special program for foreign-invested manufacturing companies with expected operation times of at least 10 years. This program is not available for private enterprises. Under this treatment, beginning from the first year when the company registers a profit, it is tax-exempted for two years, and from the third to fifth year, the tax is halved (Income Tax Law for Foreign Funded Enterprises of the People’s Republic of China). This policy benefits foreign investors, and is clearly intended to attract foreign investment. Private enterprises have to pay not only a 33% income tax but also a 20% individual adjustment tax, since in many cases the owners of private enterprises are also the operator or manager of the company. In such case, they have to pay both the individual tax and the enterprise tax.

At the end of 2001, the Statistics Bureau of Wuhan City, Hubei Province surveyed 50 private enterprises. Of the respondents, 62% felt the tax policy was unfair, and 28% said that overall a competitive environment did not exist. In Dongguan City, Guangdong Province, 80 industries were surveyed, of which 62 were open to foreign-funded enterprises, but only 42 to private enterprises. This indicates that there is some discrimination against private enterprises in 20 industries.

Also in terms of financial and industrial services, private enterprises are not given equal treatment. It is well known that financial support is an important factor for private enterprise development. At present, private enterprises face many financial difficulties. Firstly, they have relatively fewer financial channels and credit records. Due to the financial constraints, it is usually very difficult for them to bid on projects requiring large financial resources. Their financial resources for investment come mainly from the enterprises themselves. Looking at the classification of the resources for private investment in 2001, 2.3% came from national budget, 1.9% from foreign countries and self-financing accounted for 82%. This indicates that, the rapid development of private enterprises can be mostly attributable to their own financial accumulation capability on one hand, but it also means that the financing channels of private enterprises are relatively narrow and that financial support from the banking sector is far from sufficient.

According to a survey of 357 private enterprises in Shangdong Province in 2002, it is clear that the demand for loans of private enterprises is not satisfied, since only 62% of private enterprises reported success in getting bank loans. This is 8.1% lower than the average, and 10.4% lower than SOEs. Of private enterprises, 33.2% felt it was difficult to get loans from banks.

The issue is, why? Unlike in many other developing countries, the PRC's problem is not necessarily a shortage of financial resources, but how to mobilize the huge amount of unused savings (Kanamori [33]). It may be that banks believe the cost effectiveness of providing loans to private enterprises is low and that the risk is still high vis-à-vis SOEs. China Economic Information Network (CEIN [52]), on March 3, 2004, quoted comments from private entrepreneurs (2,004 NPC representatives) that there was a close relationship between the difficulty of accessing bank loans and the development stage of private enterprise, as medium-sized private enterprise face the most difficulty, because their demand for financial resources is increasing rapidly, while their status is not as stable as that of large private enterprises. They also said that banks usually require collateral, but that this is very difficult for private enterprise to provide, since they are very risk-sensitive and do not have many assets.

In short, a level playing field currently has not yet been achieved for private enterprises vis-à-vis SOEs and foreign-invested enterprises. Ensuring a sound and fair market environment for private enterprises is a critical issue.

4.2 Excessive Red Tape

One of the biggest obstacles to the establishment of new private enterprises is receiving approval from local authorities. The administrative approval procedures, including registration and rectification, are generally cumbersome and incur excessive transaction costs for private enterprises. Looking at the investment project for Guangzhou Citong Bridge as an example, we find that to get approval for building the bridge, 55 documents had to be endorsed (加快民营经济发展课题组, 2003 [44]). In fact, many administration approval procedures are not based on laws

and regulations, and the central government has given repeated instructions that they be terminated. Recently, the State Council cancelled more than 800 administration approval documents, but no one knows how many remain. Since every procedure requires some fees, and thus can provide administration departments or officials with considerable economic interests, many excessive administration approval procedures remain. Accordingly, the barriers to entry for individuals and private enterprises are still very high. This high threshold has long been rich soil for corruption and at the same time creates various costs relating to corruption, which are shared by private enterprises.

4.3 High Barriers to Entry

Private enterprises have gradually begun to enter such sectors as aviation, ports, education, culture, and civil affairs, which were once monopolized by SOEs. However, there are still high entry barriers for private enterprises, and many industries are still not open to private enterprises. In addition, it appears that the regulations themselves are not necessarily clear.

At present, barriers to entry remain in approximately 30 industries. Private investment are prohibited or partly restricted from entering such industries as electricity, petroleum and chemicals, railways, civil air transportation, finance, telecommunication, travel, labor export, service trade and technology transfers. The threshold for private enterprises is extremely high even in industries that they are allowed to enter. It is natural that there are some restrictions on the establishment of private enterprises. However, the requirements in the PRC are too strict considering its condition as a developing country. For instance, the minimum capital registration for establishing a company undertaking production or operation business is 500,000 RMB. For a company engaged in sales, the minimum requirement is 300,000 RMB. For a company involved in science and technology development or consulting services, it is 100,000 RMB. By comparison, the minimum registration capital for such companies in the U.S. seems to be zero, and in European developed countries it is usually less than 30,000 euros.

The accession to the WTO was likely a great turning point for the PRC economy and its social development. When the PRC committed to the further opening of its market, many scholars and private entrepreneurs from the PRC put forward that it needed to open up its market to the private sector before doing so for foreign investors. Under this pressure, many local governments have now promulgated a series of documents intended to open all industries to the private sector except those prohibited by national public proclamations. However, as usual it may take time to actually enforce these documents. Furthermore, few have clearly listed which areas will be open to private enterprise. The government policy of trying to open up the market to private enterprises thus lags and has not brought real change. In this sense, it is not only foreign companies but Chinese private enterprises as well that complain about the market environment in the PRC.

4.4 Immaturity of the Capital Market

As identified in Chapter 2, it appears that the PRC has changed its policy somewhat and started to accelerate the privatization of existing SOEs. In this connection, we need to look at the sales of SOE shares on the stock market.

Until 1997, the PRC government took a cautious attitude toward the sale of SOE shares. This was during the first two phases of private sector development, when a gradualist approach was adopted (see Chapter 2). However, after 1997 the government started to promote sales of SOE

shares. It should be noted that this was directly triggered by the fact that after the Asian Financial Crisis, the government faced the need to stimulate domestic demand by issuing government bonds, rapidly aggravating the national fiscal balance.

In order to cope with this situation, the government tried to sell SOE shares to increase fiscal revenues. In 1999, the Communist Party adopted the "Decision on SOE Reform and Development." Under this plan, it decided to sell shares of SOEs outside of a few critical sectors such as national defense and high-tech industries. Based on this decision, the China Securities Regulatory Commission (CSRC) designated 10 listed SOEs, and put their shares onto the market, though this first attempt ended in failure. The State Council reviewed the method of sale for almost a year and a half, and finally announced the "Provisional Rule on the Financing of the Social Security Fund through Sales of SOE Shares" in June 2001. This provisional rule required SOE to sell shares that equivalent to 10% of total financing when conducting an initial public offering (IPO) or increasing capital.

However, the stock market began to fall sharply and the government faced massive complaints from individual investors. The CSRC declared a suspension of sales of SOE shares in October 2001, and in June 2002 formally terminated sales of SOE shares in accordance with the provisional rule.

Seen from a different angle, the above development seems to paint a very complex picture about the sales of SOE shares. SOE reform led to massive unemployment, and individuals and households who had lost their jobs tried to make money through speculative investment in stocks, since the social safety net was not sufficient. On the other hand the government attempted to sell SOE shares and increase social security funds in order to strengthen the social safety net; however, that behavior itself ironically caused a sharp decline in stock prices, hurting the individuals engaged in stock speculation in an attempt to defend their lives. The pursuit of privatization through the SOE share sales, though originated from a different policy objective, led to another very delicate problem (Kanamori [31]).

This also reveals another reason for the difficulty of privatization through the sales of SOE shares, i.e. the lack of powerful institutional investors. Currently the PRC stock market relies heavily on individual investors whose market behavior is speculative and shortsighted, and who do not have stable financial resources. As of the end of 2003, total outstanding stocks in Shanghai and Shenzhen amount to about 4.0 trillion RMB. It is widely reported that roughly 60-70% of these are non-tradable SOE shares. Therefore the outstanding volume of SOE shares can be estimated to be approximately 2.4-2.7 trillion RMB.

Looking at the situation from a different angle, while total household deposits are huge (10 trillion RMB as of the end of 2003), only 6-7% of total assets (about 700 billion RMB) are in the stock market. A more fundamental problem is that the behavioral pattern of households is quite speculative and volatile. The total assets of insurance companies, a major source of institutional investment, are still very low, at about 350 billion RMB as of 2001. Trading volume and market outstanding of B shares, an apparent indicator of inflow of foreign capital, is also small, registering about 110-120 billion RMB as of 2001. However, it should be noted that in February 2001, B shares were open to domestic investors. Since then, although no official data is available yet, it is reported that neither the trading volume or market capitalization in the B share

market have grown, and that both regulator and investors take a grim view of the future of this market.⁷

All these facts indicate that there is not sufficient liquidity capacity in the market to absorb the outstanding SOE shares; in particular, the lack of institutional investors is a serious problem. There are a few positive signs. For example, the government has been encouraging insurance companies to invest in the stock market in recent years, the B shares market is developing very rapidly, and other institutional investors such as securities investment funds are growing. In July 2003, the Qualified Foreign Institutional Investor (QFII) scheme was introduced, and now major foreign investors can invest in Chinese stocks in Hong Kong, China Singapore, New York and other markets. Although it is important to find ways to channel household savings into the stock market, the development of sound and solid institutional investors also seems crucial for ensuring that stable and long-term funds flow into the stock market. In short, the PRC's immature capital market constitutes the bottleneck to the further privatization of SOEs through share sales. Further liberalization and internationalization, including the merger of A shares and B shares and the expansion of QFII, for example, would be logical next steps to consider.

In this connection, it is to be noted that the Report by the Forum of Chinese Capital Market [54] divides the development of China's capital market into three stages: "Foundation laying," "Marketization," and "Internationalization." It seems that the "marketization stage" identified in this report started just before or after the entry into the WTO. This stage is a very important one that links between the preceding and following stages. During this stage, many conflicts and contradictions have to be expected between the planned and market economy. Having said so, the report lists a number of issues to be addressed during this stage, including the building of a secondary market, improvement of corporate governance, and creation of withdrawal rules for listed companies (reflecting the recognition of the poor functioning of the ST and PT which were introduced in 1998⁸). The report predicted that both the "marketization stage" and ensuing "international stage" would last about ten years each.

Table 4.1. Household and Enterprise Deposits
(Unit: 100 million RMB)

End of the year	Total deposit	Household deposits	Household stocks	Enterprise deposits
1999	108,779	59,621	N.A.	37,182
2000	123,804	64,332	N.A.	44,094
2001	143,617	73,762	4,900(est.)	51,547
2002	170,917	86,910	N.A.	60,029
2003	208,055	103,617	7,000(est.)	72,487

Source: People's Bank of China etc.

Table 4.2. Size of Assets of Insurance Companies
(Unit: 100 million RMB)

	Property	Life	Total

⁷ It is reported that after the B share market was opened to domestic investors, many B shares came to be owned or traded by very small mainland retailers, that is not what the CSRC originally planned for this market (SCMP, April 14, 2004 [27]). Furthermore, since July 2003, major foreign investors can buy Chinese stocks under the Qualified Foreign Institutional Investor (QFII) scheme without going through the B share market and its *raison d'être* may diminish.

⁸ Under the ST (special treatment) and PT (particular transfer) system, companies with poor performance become ST or PT instead of being de-listed, and price fluctuation ranges are limited to some extent. Because of this, the shares of these companies became the target for speculation with adverse effects on the market.

	insurance	insurance	
1998	506	750	1,256
1999	527	879	1,406
2000	1,598	990	2,588
2001	2,109	1,424	3,533

Source: National Bureau of Statistics

Table 4.3. B Shares Market (Unit: 100 million RMB)

	Market capitalization	Trading volume
1998	206	196
1999	304	276
2000	635	563
2001	1,237	1,118

Source: People's Bank of China

Table 4.4. Stock Markets in the PRC (Unit: 100 million RMB)

End of the year	Market capitalization (Shanghai)	Market capitalization (Shenzhen)	Total capitalization	Non-tradable SOE shares (estimates)
2001	25,134	13,988	42,458	25,500-29,700
2002	25,363	12,965	38,328	23,000-26,800
2003	29,805	12,653	39,122	23,500-27,400

Source: People's Bank of China (SOE shares are estimated at 60-70% of total)

4.5 Lack of Credibility of the Government Sector

A market economy relies on credit in various ways. In the process of economic reform, both private enterprises and the government sector should abide by the rule of credit. At present however, both have problems in this regard. As stated above, private enterprises have relatively short credit records and because of this, they face difficulty in obtaining loans and other external financing.

For the government sector, credit records also need to be improved in a different sense. In particular the credibility of local governments is one of the major impediments to the further development of the private sector. For example, authorities usually welcome private enterprise participation in infrastructure projects, and promise to provide them with many preferential treatments at the beginning. However, once the private enterprises enter the phase of collecting returns on capital, some government sectors take "shut the door and beat the dog (关门打狗)" measures, meaning that once private enterprises invest money in infrastructure projects controlled by the government sector, they cannot easily obtain returns. As a result, private enterprises have become very cautious about investing in infrastructure projects and cooperating with SOEs.

For instance, a private company called the Guojing Corporation Group invested in several projects in a local city. One of the projects was the development of a shopping plaza. In accordance with the contract, it paid 1.5 million RMB in advance, but never received an ownership certificate for the land. In early 2000, the city government claimed that it was taking back the land “according to the law.” On another road construction project, a private enterprise was offered the right to place advertisements along the road. After investing 15 million RMB, it was abruptly notified that the contract had been cancelled. Another case involved a natural gas project. In 1997, one private enterprise was nominated as the only company to carry out a natural gas project. It tried its best to make the city one of the leading cities benefiting from the national project to “send gas from west to east.” However, the city government later abruptly notified it that a newly established company would take over the natural gas project (加快民营经济发展课题组, 2003 [44]).

The key issue is that many local governments do not properly enforce laws and regulations. We witness similar problem not only in relation to private sector development but also in areas such as tax administration (Kanamori [32]). On the other hand, the role of local governments in the process of development of the private sector is expected to grow in the future. The experiences of other developed countries, including Japan, show that as the economy matures, more and more authority tends to be delegated from the central to local governments (decentralization) in order to ensure rational resource allocation and administrative efficiency. This “decentralization” is all the more important in the PRC, which is a vast country with a huge population. When pursuing the further development of the private sector, how the central government ensures that local governments enforce laws and regulations properly is a matter to be considered. For the central government, a first step would be to survey existing laws and regulations or practices and to examine what is happening in local areas by, for example, sending examination teams to each province. Then, it could streamline and introduce laws and regulations encouraging the rectification of malpractices. If necessary, sanctions on corruption and malpractice need to be tightened. As local governments become more accountable, the central government may delegate some authorities to them and pursue decentralization.

4.6 Wide Income Disparities

Wide income disparities are a difficult problem for the PRC (Kanamori [31]). The privatization of SOEs and collective firms is in fact aggravating the income disparities between rich and poor and also among regions. For example, the asset value of SOEs, including stocks, was low or nearly zero, reflecting their poor performance, but after privatization their performance may improve, their stocks may be listed on stock exchanges and their asset value may rise sharply. Private entrepreneurs who enter the Communist Party can easily obtain these capital gains by using their privileged status, and these interests may be easily transmitted to other privileged individuals (through bribery, corruption etc.). On the contrary, many workers lose their jobs due to SOE reform. So that’s why some experts thought that ironically with the progress of privatization, many Communist Party members have now become “rich capitalists.”

4.7 Lack of Management Skills

Many private entrepreneurs still lack sophisticated management skills. Though there are many success stories, there have also been a number of failures. In many cases, the failure was due to overly ambitious expansion policies, too much spending on public relation activities, the failure

of equity investment, or conflicts with the government sector. A survey of 21 cities conducted by the National Industrial and Commerce Association shows that roughly 70% of private entrepreneurs cannot read accounting sheets, do not use IT, and do not read documents. Another survey, reported in the *People's Daily* on 30 May 2004 [51], shows that even Shanghai need more than ten thousand additional senior enterprise managers. In a survey of more than 1,000 Shanghai-based top commercial leaders, over 90% did not speak a foreign language and 75% did not know how to use a computer. According to the same report, there are many cases where project leaders in innovation projects left the country and that more seriously, most Chinese enterprises do not believe that training senior leaders is important, as they think that they are already in a very high position and that further training is not necessary.

As discussed in Chapter 5 and 6 below, we can generally say that as the size of enterprise becomes larger, more sophisticated ability will be required to manage it. The fundamental problem for the PRC is that while many managers have run large SOEs under the centrally planned economic system, they do not have much experience in managing enterprises under different circumstances, i.e. the market economy. Therefore once the SOEs are privatized, they tend to go into trouble.

In fact, PRC authorities themselves appear to understand this problem. Recently, *Sino News* on June 2, 2004 reported that the State Asset Management Committee, whose primary responsibility is to promote the privatization of SOEs, launched a plan at its meeting on human resources to recruit a mass of high quality personnel on an international scale, in order to improve the quality of management at SOEs. The head of the Committee was quoted as saying that seven high-ranking managers were recruited for six SOEs in 2003, and that another 23 were slated to be recruited in 2004. He also admitted that currently, most of the managers of SOEs were nominated in the same way as the nomination of party cadres and government officials, and that the selection was limited within a region or the enterprise itself, despite the growing market competition with the rest of the world. The same article reported that official statistics indicate that since 1998, central government-controlled SOEs have lost 30% more human resources than their newly-recruited college students. Those who left the SOEs are 40 years old on average.

4.8 Private sector and SMEs

Most private enterprises are still small and medium-sized enterprises (SMEs). According to the information from the website china.com.cn (新華網), June 3, 2004, the number of SMEs in the PRC surpassed 10 million in 2003, accounting for 99% of the total number of enterprises. They also account for more than 50% of GDP, 60% of total exports and more than 40% of tax revenue. How to encourage and assist SME should be an urgent concern for the government. In particular, as seen in Section 4.1 above, the access of private SMEs to the banking sector is severely restricted.

SME policies of other countries including Japan may be useful, in areas such as the setting up of financial institutions specializing in SME loans, and the establishment of private associations that provide various kinds of information to SMEs. (See Appendix 2.) In his recent paper, Wang Yanzhong (2004 [36]) proposes several measures in this regard. First, the role of special SME credit-service departments at state-owned banks should be fully developed. Second, a more flexible interest rate-floating regime should be adopted for SMEs. Third, specialized financial institutions such as small non state-owned banks, small credit guarantee companies and small leasing companies should be introduced. Fourth, there is a need to learn from the experiences

of developed countries in second board markets. Fifth, the loan guarantee system must be improved. Sixth, various SME support bodies such as an SME credit-rating system and comprehensive service system, including legal advice, taxation support system and professional staff training system, must be created.

We believe that in view of the relatively premature stage of development of SMEs in the PRC, the most effective immediate measure would be to establish various institutional infrastructures, in particular, a financial support framework. However, in the medium to long term, it will become more and more important to place emphasis on creating a sound and fair market environment for SMEs. A policy, which aims to directly assist SMEs by distorting the market mechanism, cannot be sustained in the long term. Rather, a policy to address market failures is critical. (See Appendix 2.)

In fact, it is reported that the PRC government is now stressing the creation of a market environment where SMEs can enter and compete with other enterprises on an equal footing in accordance with the SME Law. It is also trying to support entrepreneurs in opening new ventures by providing them with a wide range of services including information and technology. These are seen as encouraging signs.

4.9 Private Sector and Macro Policy

We identified several factors that constitute a bottleneck to the further development of the private sector in the PRC. Seen from a different angle, it should be noted that the development of the private sector itself now leads to some problems when the government tries to implement adequate macroeconomic policies. *South China Morning Post* on May 18, 2004 [27] reported that one Hong Kong, China based economist estimates the size of the PRC economy may be twice as large as the official figure. These estimates may be exaggerations, but it is widely believed that official figures underestimate the size of the economy, because many private companies fail to report their income accurately for fear of facing an increased tax burden. This has a serious implication in the context of macroeconomic policy. Because of the lack of accurate information, the government lacks a real picture of the economy. In this case, the government faces the critical challenge of how to formulate and implement adequate macroeconomic policies in order to achieve sound and sustainable economic growth. For example, since 2003, concern over excessive investment and overheating of the PRC economy has increasingly emerged. (See footnote 3) However, since healthy companies in the private sector usually do not go to the commercial banks to seek bank credit and they are not concerned if the People's Bank of China changes interest rates. It is inevitable that government efforts to cool down overheated investment could be thwarted.

One of the most important economic implications of private sector development is that it is absorbing a tremendous amount of excessive labor released from the SOEs. Therefore, the pursuit of private sector development is something that must be done by the PRC government. In this connection, assessing the absorbing capacity of private enterprises and their economic and social implications is an important task for the government. Will their capability be strong enough or most likely not, as we suggested in Chapter 3? If we assume a private sector development that fully absorbs unemployment, the economic and political impact would be huge. It should also be noted that the model in Chapter 5 indicates that the demand for labor will decrease, and unemployment will become more serious, with the progress of SOE reform and marketization. Further developing new products, adjusting the industrial structure and actively promoting the service sector may be good solutions.

Another important implication is that the private sector and SOEs should compete with each other through complementary relations, so that private sector development forces the SOEs to enhance their own competitiveness. In other words, the success of SOE reform will depend on the sound development of the private sector.

It seems that the status of employees in private enterprises is not stable, for instance, since most are temporarily hired or are not covered by social security. So long as people stay in the government sector or SOEs, they are fully protected, but now more and more people are forced to leave and they are suffering from tremendous amount of uncertainty.

Under the economy in transition, people's perception of the private sector is low. Ownership diversification may have developed, but the political and legal system, bureaucracy and economic system have not caught up. However, there have been signs of change in this regard. Although the government still plays a significant role in the reform process, the main driving force behind the transformation of the PRC from a planned economy to a market-oriented economy is a change in perception and desire for better life among the people. Under the Marxist dogma that dominated the planned economy, the desire of people for wealth, consumption goods, freedom and democracy were greatly suppressed. Traditional socialist practice itself opposed the so-called basic principle of "materialism." The reform and opening up policy is constantly liberalizing people's productivity and releasing people's desire for higher living standards.

Box 3: The closed project of Tieben (铁本) Steel Corporation: a case of the overheating economy and its cost

Jiansu Tieben Steel Corporation, in Chang Zhou, Jiangsu Province, is a private company. Despite having capital of only RMB 300 million, it launched an ambitious plan to invest RMB 10.6 billion to build a giant steel company within three years. The purpose was to create a company exceeded Shanghai Baosteel Group Corporation. Shanghai Baosteel Group Corporation (宝钢) is the largest steel company in the PRC, as well as the fifth largest in the world, with production capacity of 20 million tons per year.

On April 28, 2004, a regular meeting of the State Council called upon Tieben Steel Corporation to suspend its project. With this pronouncement, the dream of the company to become the largest factory in the PRC died out. Why did such an ambitious plan come from such a very small company, and why did this ambitious steel and iron project eventually collapse? A correspondent of "Economic 30 Minutes," a well-known program on CCTV (中国中央电视台 or China Central TV), investigated the project.

The reporter found that Dai Guofang (戴国芳) was the original owner of this private steel company. From the beginning of 2002, he began to carry out a plan to realize his dream. He organized two groups of people to deal with the program. One group was to be responsible for acquiring land, and the other for getting loan from banks. Finally, they obtained land of 9,000 mu (亩) or 600 hectare (1 mu =1/15 of a hectare) and an RMB 4.3 billion loan contract from six financial institutions. In June 2003, the project started.

However, eight months later, a group led by the central government began to investigate the company and found that the project was illegal although it had the support of the local government. In order to obtain approval from the authority, this project with a designed

production capacity of 8.4 million tons and a rough budget of 10.6 billion RMB had been divided into 22 small projects separately by the local government. The 600 hectares of land was also unlawfully confiscated from farmers and was approved with the assistance of the local government. In addition, in order to get loans from financial institutions, the company had presented false financial reports. The 600-hectare project site was not cultivated, and 6,000 farmers had lost their land. It is quite possible that about 2.5 billion of the RMB loans were not returned to the financial institutions.

This story seems to have given the PRC important lessons. First, local governments often encourage investment by private companies, and eventually the excessive investment overheats the economy as a whole. Second, even if a private company makes the final investment decision itself, it can be strongly influenced by intervention from the authorities. The interests of the authorities and the unrealistic objectives of the company mutually interact, creating an overheated investment environment. Since budgetary control over the banking sector is still very loose and also faces local government intervention, even companies with little credibility can easily get banking loans in such cases. This may eventually bring about a further increase in non-performing loans during the 2003-2004 economic growth period. Third, the lands of farmers can be easily and unlawfully confiscated, and the long-run interests of farmers are seriously neglected. Fourth, marketization⁹, privatization and the legal system are still imperfect, meaning that in order to curb overheating, some government intervention in the market is essential. In other words, there are no autonomous countervailing market forces to curb excessive investment.

Box 4: Failures

The November 2003 edition of *Hong Kong Kaifang Journal* (香港開放雜誌) reported various failures of private entrepreneurs. They highlighted four well-known rich private entrepreneurs whose businesses eventually failed. Each case has its own background. However, all show that in the PRC, the Communist Party, government sector and bureaucrats still play a dominant role, and once private entrepreneurs run up against the power of authorities, they inevitably fail.

The Liu Xiao Qing case: Because she is a very popular and wealthy actress, this case drew great attention. Basically her case involved nothing but tax evasion. Employees of her company informed the tax authority about her tax evasion. It was reported that she cheated and humiliated a number of workers in Jiangsu Tongshan County to accumulate her wealth. The workers actually produced commodities and made money for her cosmetic company, but she refused to share profits with them. Attorneys filed a suit against her on behalf of the workers and she lost, but she still did not make preparation to pay, and workers developed strong feelings against her. This case reflects one of the “ugly” aspects of the current private sector.

⁹ Marketization (市場化) is a concept especially referring to transitional economies or non-market economies. In short, it is a process through which an economy transforms itself from a planned economy to a market economy. Since 1979, the PRC has been in a process of marketization. Marketization is also defined as an evolutionary process where the market mechanism starts, develops and becomes mature, where the market mechanism plays a more and more important role in resource allocation, and where the economy relies more and more on the market mechanism (Chen Zhongsheng, 1999 [6]). In neo-classical economics, there is no room for marketization, because it is assumed that the economy is under perfect competition or is already marketized. The process of economic marketization is one where the individual's rights to economic freedom are established, enforced effectively and protected. In a command economy, these rights are incomplete and even illusory. Marketization aims to make them complete and tradable with each other (Zhang Shuguang and Zhao Nong, 2000 [40]).

The Yang Bin case: North Korea decided to develop a special economic zone (SEZ), and in 2002 appointed Yang Bin, a Chinese-Dutch citizen, as the first governor. Later he was removed from that position by the PRC authority on suspicion of tax evasion and illegal use of land. However it is reported that the real reason for his removal was a conflict of interest between North Korea and the PRC in developing the SEZ. The PRC really wanted North Korea to develop the SEZ somewhere near the border between North Korea and Republic of Korea. Thus, the tax evasion and illegal use of land could be interpreted as an excuse to discourage North Korea's plan to develop a SEZ somewhere else. This case shows that under the situation where the Party and the government play a more dominant role than laws and regulations, the lawful rights of private entrepreneurs are not fully protected.

The Ying Rong case: This is another case that shows that private property rights are not guaranteed. Ying Rong was an economist who originally invested in stocks, accumulating wealth from his expertise on money and finance. He established an auto company with private and state partnership. He attempted to list its on the New York Stock Exchange. From the beginning, the listing faced difficulties since the attorney in the United States had concerns about the state ownership and basis for private ownership. Ying then tried to reorganize the ownership structure of the company by, for example, setting up a trust fund that was contributed by various partners, and he finally succeeded in the listing. Consequently the ownership structure of the company became extremely complicated. Ying was constantly worried that the company would be taken over by the state, and he further tried to transfer stocks among the partners. In the end people started to suspect that he would flee with all the money, and tax authorities launched an investigation. Although he denied the accusations, he lost all his status and property in the country.

The Li Jing Wei case: Li Jing Wei joined a small and not well-known liquor factory owned by Sunshui Municipality in Guangdong Province. At the time, the market for sports drinks was growing rapidly, since sports drinks were becoming more and more popular among Chinese athletes in the Olympic games. He invited a friend, who was a scientist and had done some R&D work on beverages, and finally developed his small liquor factory into a large-scale company called “健力宝 Jian li bao” (Treasure of health and power). However, later a struggle broke out between the municipality and him over the ownership of the company's stocks. He proposed to sell more stocks to the municipality to finance the venture, but this was refused by the municipality. Instead, it sold its 75% of the stocks to Zhejiang International Trust Investment Fund. Consequently, the controlling power over the company shifted from Li Jing Wei to the Investment Trust Fund. He was forced to retire and in addition was accused of corruption. He left the NPC and was hospitalized.

5. Modeling Private Sector Development

5.1 Issues to be Addressed by the Model

In the past 26 years between 1978 and 2004, the PRC has successfully carried out reform and opening policies and achieved a nearly 9% average annual economic growth rate. Through reform and opening, it has also successfully developed a prosperous private sector and became a member of the World Trade Organization (WTO) in 2001. These two important events

demonstrate that the PRC has transformed itself from a socialist planned economy to a market oriented one. The observation above gives us a general profile of the Chinese private sector, describing how it has developed and what bottlenecks are currently hindering its further development. More specifically,

1. The number of private enterprises increased rapidly. From 1989 to 2003, the number of private enterprises grew from 90,000 to more than 3 million, up nearly 33.3 times, and the number of individual business increased from 12.47 million to 23.55 million, nearly doubling during the same period. The number of foreign enterprises increased from 16,000 in 1989 to 226,000 in 2003, up nearly 14 times. In contrast to the rapid growth of the private sector, the number of SOEs and collective enterprises fell from 1.55 million in 1992 to 1.05 million in 2003 and from 4.16 million to 1.63 million, respectively.
2. The number of employees in private enterprises is relatively small and is decreasing. In 1989 on average about 18 workers were employed in each private enterprise, but by 2003 this number had gone down to 14. During the same period, the average number of employees for SOEs was relatively stable, fluctuating within a narrow range between 49 and 56, except for 1992 when it registered a high figure of 76 employees. In 2003 the average number of employees for SOEs was 65. It should also be noted that most small-medium sized SOEs have been privatized.
3. Private enterprises face high transaction costs including high administration approval costs and other costs such as costs for entrance.
4. The most important driving forces for the PRC economy are private sector development and SOE reform, in particular the privatization of existing SOEs.
5. There are other macroeconomic phenomena to be looked into. For example, why did the 'township-village' enterprises (TVEs), which were once considered new creatures by the PRC, moving toward disappearance after their temporary heyday in the 1980s? Why did SOEs under the contract responsibility system follow the same destiny? Why has the PRC gone through such a long process of inflation? Are these factors related to the behavior of enterprises? Why have most SOEs suffered from losses and huge non-performing loans? Is there any reasonable explanation? Do different types of enterprises have the same economic efficiency or not?

To address these issues, we discuss the objectives of enterprises in Section 5.2, and based on those observations, try to make some assumptions that can be helpful in simplifying the issues presented. Secondly, based on the model, some propositions on the determination of output, investment and employment in the course of privatization are obtained in Section 5.3. Thirdly, also based on the model, we discuss the determination of a firm's residual profit and its implications to the banking sector in Section 5.4. In Section 5.5 we discuss how the number and size of private enterprises in the PRC is determined. Finally, we summarize the finding of this chapter and elaborate implications of the model.

5.2 Objectives and Objective Functions of Private Firms in the PRC

There are a number of papers that focus on private sector development in the PRC. Most look into this issue from simple statistical tables or literal descriptions, such as the works by Zhang Houyi, Ming Lizhi, and Liang Chuanyun, 2002 [38], Asian Development Bank, 2003 [2], Stoyan Tenev and Chunlin Zhang, 2002 [29]; only a few provide a general theoretical framework. In fact, there are few studies either on SOEs or on private companies in the PRC based on mathematical models and the behavioral theory of enterprises. Michael K. Y. Fang, Wai-Ming Ho and Lijing Zhu, 1999 [22] contribute a modeling effort to this issue by introducing a soft

constraint assumption. However, since they assume that private enterprises are entities pursuing profit maximization, their model is silent about institutional changes except for some macroeconomic policy effects.

However, in accordance with the basic principle of economics, the first step for economists in studying firms should be to understand how they behave under specific circumstances. In mature private economies such as the U.S., Western Europe and perhaps Japan,¹⁰ the enterprises are usually “private” and are generally considered to be profit maximization seeking units¹¹. Hence, in those economies, the goal pursued by enterprises is not considered an issue of discussion.

However, for an economy in transition such as the PRC, the simple assumption of profit maximization may not be necessarily reasonable because of strong government intervention. In fact, one of the purposes of economic reform of China is to remove obstacles that make enterprises depart from profit maximization.

In the PRC, whether the economic growth rate is high or low is directly linked to the motivation of local government officials. Local government officials can use their power to force enterprises to produce more than the market equilibrium level. This is evidently corruption, as it involves using public power to seek self-interest, such as the achievement of promotion. The GDP is usually a very important factor in the promotion of local government officials. In order to win promotion, government officials might make great efforts to realize their personal objectives by manipulating the enterprises under their administration. In some cases they even falsify economic data and inflate them compared to the real figures. There is a well-known phrase, “the number produces the official and the official produces the number; the bigger the number, the bigger the official.” This vividly describes the important role played by economic growth in the promotion of government officials. There are also many other reasons why enterprises deviate from profit maximization objectives. For example, they may blindly try to enlarge their market share, marketization may be imperfect, or managers may place more emphasis on their personal interests or workers’ welfare. Our argument that PRC enterprises are not necessarily profit-maximizing units coincides with the idea of evolutionary economics, which argues that enterprises are profit-seeking units, rather than profit maximization units.

This idea is also supported by a survey conducted by the Institute of Economics, Chinese Academy of Social Sciences (CASS). The survey was carried out in the year 2000 to investigate how the performance and behavior of various types of enterprises in the PRC evolved. Considering the diversity of reform models as discussed in Chapter 2, and to reflect the effect of economic reform on SOEs, collective enterprises and private enterprises, a total of 451 enterprises were surveyed. 184 enterprises are in Jiangsu province, 83 are in Wuxi (无锡), 58 in Yancheng (盐城) and 43 in Hangzhou (杭州). 130 enterprises are from Zhengzhou of Henan Province and 137 from Jiangmen (江门) of Guangdong Provinces. Each was asked to describe

¹⁰ In the case of Japan, it is widely argued that many companies may try to maximize market share rather than short-term profits. Their view seems to be that maximizing market share and establishing the status of the company in the market ultimately paves the way for maximizing profits in the long run. It should be noted that, from this long-term perspective, two goals, i.e. market share maximization and profit maximization, are not necessarily trade-off relationships, but are rather compatible.

¹¹ Without doubt, most standard economic models are based on the assumption of profit maximization, despite the fact that authors cast doubt on the relevance of this assumption. When one is not certain whether an enterprise is a profit maximization entity, as a secondary optimal choice one can regard profit maximization as a theoretical benchmark, so that the difference between reality and the theoretical benchmark can be identified (Zhao Zhijun, 2002 [43]).

their objectives in seven steps. The seven choices were: (1) Value added maximization, (2) Market share maximization, (3) Profit maximization, (4) Sales revenue maximization, (5) Enlargement of firm scale, (6) Maximization of employees' wealth, and (7) Others.

The survey asked the firms which of the above choices was the primary objective, which was second, third, and so on. The outcome of the survey (see Table 5.1.) shows that the number of enterprises choosing value-added maximization as the first place was 40, or 9%. The number of enterprises choosing value added maximization in second, third, fourth, fifth and sixth place was 11%, 17%, 18%, 18% and 17% respectively. Forty-five, or 10% of enterprises, did not choose value added maximization as their objective. A similar outcome can be seen for other choices. From the table, we also find that the enterprises choosing profit maximization (Goal 3) as a first choice made up the largest proportion, 53%, followed by market share (Goal 4), sales revenue, value added, enlargement of firm size and employees' welfare, with 19%, 12%, 9%, 6%, 2% and 0.2% respectively.

Table 5.1. Distribution and Ordering of Objectives of Surveyed Enterprises

	Order	1	2	3	4	5	6	7	0	Sum
Goal-1	Count	40	50	75	83	80	78		45	451
	%	9	11	17	18	18	17		10	100
Goal-2	Count	55	129	122	72	35	14		24	451
	%	12	29	27	16	8	3		5	100
Goal-3	Count	239	65	69	37	17	8		16	451
	%	53	14	15	8	4	2		4	100
Goal-4	Count	86	140	79	78	31	13		24	451
	%	19	31	18	17	7	3		5	100
Goal-5	Count	26	34	30	58	104	146		53	451
	%	6	8	7	13	23	32		12	100
Goal-6	Count	9	31	54	78	121	107		51	451
	%	2	7	12	17	27	24		11	100
Goal-7	Count	1	0	1	1	3	0	23	422	451
	%	0.2	0.0	0.2	0.2	1.1	0.0	5	92.9	100

Note 1: Goal-1: "industrial value added maximization."
 Goal-2: "sales revenue maximization."
 Goal-3: "profit maximization."
 Goal-4: "enlargement of market share."
 Goal-5: "enlargement of firm size or scale"
 Goal-6: "employee revenue and welfare maximization."
 Goal-7: others, if any, need to explain further.

Note 2: the numbers 1, 2, 3, 4, 5, 6, and 7 in the first row "order" represent the order of each objective chosen by the enterprises. 0 means that the choice is not considered. The "count" is the number of enterprises choosing the corresponding terms. For example, "40" in the second row means that 40 enterprises chose value-added maximization as their first place objective.

Table 5.2. Number and Ratios of Different Classes of Enterprises Choosing Profit Maximization Objectives

	Order	1	2	3	4	5	6	7	0	Sum
Type 1	Count	46	13	9	5	3	1	0	5	82
	%	56	16	11	6	4	1	0	6	100
Type 2	Count	41	11	9	8	3	0	0	0	72
	%	57	15	13	11	4	0	0	0	100
Type 3	Count	5	2	2		1	0	0	0	10
	%	50	20	20	0	10	0	0	0	100
Type 4	Count	76	18	22	13	6	5	0	5	145
	%	52	12	15	9	4	3	0	3	100
Type 5	Count	25	7	6	5	0	0	0	2	45
	%	56	16	13	11	0	0	0	4	100
Type 6	Count	16	6	5	3	1	1	0	2	34
	%	47	18	15	9	3	3	0	6	100
Type 7	Count	4	0	0	0	0	0	0	0	4
	%	100	0	0	0	0	0	0	0	100
Type 8	Count	10	2	6	1	0	0	0	1	20
	%	50	10	30	5	0	0	0	5	100
Type 9	Count	12	3	4	2	3	0	0		24
	%	50	13	17	8	13	0	0	0	100

Note: According to registration status, enterprises are classified into nine types. Type 1: 82 SOEs; type 2: 72 collective enterprises; type 3: 10 cooperative enterprises; type 4: 145 limited liability corporations; type 5: 45 share-holding corporations; type 6: 34 share cooperative enterprises; type 7: 4 partnership enterprises; type 8: 20 private enterprises; type 9: 24 joint-venture enterprises with foreign investors.

Table 5.2 shows that all of the partnership enterprises in type 7 primarily pursue profit maximization. However there is a lack of generality due to the limited number of samples. All other types of enterprises have a relatively stable proportion of enterprises pursuing profit maximization as the first choice, ranging from 47% to 57%.

The outcomes of the table give us at least two hints. First, many enterprises in the PRC, regardless of whether they are private or state-owned and under reform, are not pure profit maximization entities. In addition to profit maximization, they also give attention to other goals

such as market share, value added and sales revenue. Second, toward the year 2000, after experiencing the so-called “Zhua Da Fang Xiao or 抓大放小” reform, SOEs and collective enterprises have grown close to private enterprises in their choice of objectives. In other words, small and medium sized SOEs have basically completed their transition process.

The objectives of the firms surveyed can be classified into three main categories. The first closely relates to the scale of the firm, and includes factors such as value added, market share, sales revenue, and enlargement of firm scale. The second category represents the efficiency of the enterprise or returns on capital and manager’s ability, and includes factors such as profit maximization. The third category relates to the wealth of employees, such as maximization of workers’ welfare. The survey shows that profit maximization is not the sole objective for PRC enterprises. This outcome helps us to develop an objective function for PRC enterprises.

In our study, the typical planned economy is treated as an extreme case. In accordance with the above observation, we assume that the planned economy is a form of one firm-country system, meaning that the whole country is made up of only one firm. The amount produced by the firm is determined by the central government, based on a production function. Since there is no market in the planned economy, there is also no market price. Therefore price is not a constraint for the central government. However, since resources are scarce, as in any other society, the planned economy also faces resources constraints, such as capital and labor. So-called state-owned firms are regarded as production branches. What to produce, how to produce and how much to produce are all determined under the central government plan. As a result, resources are used so long as they are available by the government, which pursues high economic growth.

The other extreme case is the neo-classical market economy. Under this system, it is usually assumed that private companies take pure profit maximization as their final objective. This kind of enterprise, regardless of whether it exists in the real world, can be assumed as a standard for the purpose of comparison.

According to our survey, SOEs and non-SOEs in the PRC appear to have multiple objectives. For the sake of simplicity, we assume that the objective function of these enterprises is a function of value added (output) and profit, or for simplification, a function of a weighted average of value added (output) and profit.

Below, we set up a simple model, and then based on it, discuss the impacts of objective choice, entrance costs faced by enterprises on the demand for labor, investment, and profits and total product. Secondly, we identify the factors affecting the development of the private sector, and how they influence private sector development. Thirdly, based the above analysis, we address the issues of how to develop private enterprises in the future.

There are two standard ways to analyze the objectives and development of private firms. One is to assume that a firm has production technology with a constant return to scale, and also to assume constant marginal costs and an independent output level (Solow, 1994 [26]). Using this approach we cannot say anything about the size and number of firms, since at equilibrium, any industry configuration is possible, and there is no distinction between many small firms producing each Q/n and one big firm producing Q according to the ideas of Christina Gathmann¹²(2001 [8]). Another feature of the model is that it does not deal with the issue of how much income is attributable to the technology level and how much to the manager’s talent. This contradicts the reality that managers get more money than average workers.

¹² Though the work of Gathmann on the Internet is unpublished, it is worthy of reference and draws our attention.

Another way to analyze the development of firm is that all firms in the market are engaged in production with the same technology. Therefore, each firm faces the same cost curve. If we take the standard case of a U-shaped average cost curve, the production level of all firms is equal; this is also obviously different from what we actually observe.

To examine the development of private sector in the PRC, we follow the modeling methods of Christina Gathmann, 2001 [8], which combine Lucas's (Lucas, 1978 [18]) model of firm size with entrepreneurial talent, Luc Laeven and Christopher Woodruff (2004 [17]) with not only entrepreneurial talent but also the quality of legal system when determining optimal size of firms, and Fabiano Schivardi and Roobeto Torrini, 2004 [9], which investigated the role of employment protection legislation (EPL) in determining firm size distribution. All of them assume that enterprises face a decreasing return to scale¹³. Therefore, each enterprise is assumed to have a residual profit (income) after income is distributed among labor and capital. This residual profit pays for the manager's talent or technological level.

In addition, as stated in Chapter 4, enterprises face considerable constraints, including the lack of credit and excessive administration process, in starting up private enterprises. To represent the impediments faced by the private enterprises, we introduce a proxy variable called "entrance cost" denoted by C into the model to represent all transaction costs other than labor and capital costs. Under a planned economy, the entrance cost can be unlimitedly high, so that a private enterprise cannot be established in some sectors. With the progress of reform in the PRC, the entrance cost may fall, making it easier for entrepreneurs to build more private enterprises.

We also introduce a variable that represents the degree to which an enterprise pays attention to profit maximization. Though many objective choices are presented for consideration, we believe that constructing a final or aggregate objective is helpful in the analysis of enterprise behavior. For the aggregate objective function, we simply assume that it is a weighted average of the multiple choices. For the sake of simplicity, we assume that the objective function of a firm is the function of profit and output:

$$O = O(\pi, Y); \quad (1)$$

We further assume that an enterprise with labor (H) and capital (K) faces labor costs (W) and capital costs (R), and produces output (Y) with Cobb-Douglass technology:

$$Y = AK^\alpha H^\beta, \quad \alpha + \beta < 1; \quad (2)$$

Following Lucas, 1978 [18], Managers get a residual profit related to ability (A), and firms are assumed to have different sizes and to be controlled by different managers with different managerial abilities.

Considering the tax collected by the government, the after tax residual profit function is:

$$\pi = (1 - \tau)AK^\alpha H^\beta - KR - HW - C^{14} \quad (3)$$

¹³The model form of decreasing return to scale can be deduced from constant or increasing return to scale. For example, for constant return to scale technology $y = AH^\alpha K^\beta L^{1-\alpha-\beta}$ (see Barro, Robert J., Sala-i-Martin, Xavier, 1995 [4]), where H: human capital, K: material capital, L: ordinary labor, managerial ability can be regarded as a function of human capital $B = AH^\alpha$. Thus, the production function can be rewritten as $y = BK^\beta L^{1-\alpha-\beta}$, which has a decreasing return to scale with respect to K and L (for $\beta + (1 - \alpha - \beta) = 1 - \alpha < 0$). This assumption allows

managers to share "a residual profit" $\frac{\partial y}{\partial H} H = y - (KR + LW)$.

¹⁴ In a competitive framework, the marginal return on capital is determined by the capital cost R. However, in the PRC, the money market price is almost completely controlled by the central bank, which represents the central

Here τ is the tax rate on output. Based on the above assumptions, the maximization problem faced by an enterprise can be written as:

$$\begin{aligned} \underset{K,L}{Max} O &= O(\pi, Y) \\ &= (1 - \lambda)AK^\alpha H^\beta + \lambda[(1 - \tau)AK^\alpha H^\beta - KR - HW - C] \\ &= (1 - \lambda\tau)AK^\alpha H^\beta - \lambda(KR + HW + C) \end{aligned} \quad (4)$$

Where, λ is the privatization and marketization variable that represents the extent to which an enterprise pays attentions to profit maximization, or the tendency of an enterprise toward profit maximization¹⁵.

We believe that the assumption made here is suitable for both private enterprises and SOEs in the process of reform. In fact, the objective function can be adjusted with the variable λ to suit the characteristics of both private enterprises and SOEs:

- a) When $\lambda = 1$, $\underset{K,L}{Max} O = (1 - \tau)AK^\alpha H^\beta - (KR + HW + C)$, which corresponds to residual profit maximization, the normal or standard pattern of behavior under a mature market economy, such as the U.S. and Japan.
- b) When $\lambda = 0$, $\underset{K,L}{Max} O = AK^\alpha H^\beta$, which corresponds to output (value added) maximization. This is what a pure planned economy pursues. In this case, enterprises ignore constraints of factor price and government tax, and demands for both labor and investment are unlimited, notwithstanding the fact that the enterprise will eventually have to face constraints from supply: for example, $K < K_0, L < L_0$.
- c) In general cases, $0 < \lambda < 1$, we have $\underset{K,L}{Max} O = (1 - \lambda\tau)AK^\alpha H^\beta - \lambda(KR + HW + C)$. This expression reflects what current PRC private enterprises and non-private enterprises are pursuing, namely output maximization and profit maximization. The bigger λ may represent the behavior of non-private enterprises under transformation, which tend to place more emphasis on profit maximization.

We believe that with the deepening of market-oriented economic reform and the perfection of the legal system, the overall objective of PRC enterprises will move toward profit maximization, which means that λ will increase with the development of the market system and progress of privatization. This is why λ in this paper can be regarded as a variable representing the extent of privatization and marketization in the PRC. Thus, the assumption here is actually suitable for both private enterprises and non-private enterprises.

5.3 Determination of Output, Investment and Employment in the course of Privatization

government rather than the market. The interest rate as a benchmark of capital costs R is not determined by the market, but by the government. For this reason, in a relatively short run, R can be regarded as an exogenous variable individual that firms are not able to control.

¹⁵ Multi-objective function of the firms may also take the Cobb-Douglas form: $O(\pi, Y) = B\pi^\lambda \cdot Y^{1-\lambda}$. However, our conclusions may not be changed, because the logarithm of Cobb-Douglas function is an increasing linear function of logarithms of profit and output.

The first order condition of the problem (4) is

$$\frac{\partial O}{\partial K} = 0, \quad \frac{\partial O}{\partial H} = 0$$

or

$$\alpha(1 - \lambda\tau)AK^{\alpha-1}H^{\beta} = \lambda R \quad (5)$$

$$\beta(1 - \lambda\tau)AK^{\alpha}H^{\beta-1} = \lambda W \quad (6)$$

Under the first order condition (5) and (6), When $\lambda < 1$, then $\frac{\partial F(K, H)}{\partial K} = \frac{\lambda}{1 - \lambda\tau} R < R$,

$\frac{\partial F(K, H)}{\partial H} = \frac{\lambda}{1 - \lambda\tau} R < R$; That is, both capital and labor marginal productivity will be below R ¹⁶.

One might argue that enterprises will not be able to survive if investment is pushed to the point where marginal returns are below R , and that at that point, entrepreneurs will lose a capability to service loans and to cover the opportunity cost of capital. In our view, this situation may be connected with the phenomenon of so-called “soft budget constraints.” “Soft budget constraints” exist widely in the socialist system, meaning that the supply of funds is softly constrained and the excessive demand for loans is easily satisfied, if enterprises or persons near power groups are able to cooperate well with the government sector. To understand this phenomenon, readers need to grasp the original condition of the PRC economy, i.e. the national government owning almost all assets and tolerating some degrees of loss for macroeconomic efficiency. Taking the state-owned economy as an example, in the initial period of reform all investments were made by the government through appropriating fiscal funds, all profit belonged to the government and losses were compensated by fiscal funds. Consequently a huge budget deficit emerged. Only after the government became unable to bear the losses of state owned enterprises, a policy or reform called “Bo Gai Dai (拨改贷)” meaning “replacing government funds for enterprises with bank loans to enterprises” was adopted. This reform succeeded in rescuing fiscal sector from its difficulties. However, since the operating mechanism of firms didn’t change much (due to gradualism) and losses still existed, this reform only transferred the fiscal burden to the banking sector, resulting in a large amount of non-performing loans (over 25% of total bank assets) in the banking sector. Such banks would go bankrupt in a market economy. However, since they are mostly owned and guaranteed by the central government, they could survive for a relatively long time as long as state-owned assets including banking assets are sufficiently large to bear their losses. With the long accumulation of non-performing loans, now it seems that banking sector no longer has the capacity to bear the losses. Furthermore the sector is now under the pressure from WTO accession. As a result, banking sector reform has become an urgent task.

This objective deviation from profit maximization combined with soft budget constraints has a double effect on the economy: on one hand it causes a loss of state-owned assets, and on the other hand it forces the government to reform the economic system toward privatization. Privatization then forces firms to pay more attention to profit maximization and to promote marginal return to capital and cut losses.

By solving (5) and (6), the demand for investment, capital and the demand for labor are respectively:

¹⁶ Michael K. Y. Fang, Wai-Ming Ho and Lijing Zhu 1999 [22] directly assume that interest rate on loans is set so low that there is an excess demand for bank loans. This means that excessive demand is caused by low interest rate and with no relation to the behavior of firms. Here, we can conclude that excessive demand is caused by deviation of firm objectives from profit maximization, and excessive demand is satisfied with soft constraint supply.

$$K_\lambda = \frac{\alpha(1-\lambda\tau)Y_\lambda}{\lambda R} = A^{\frac{1}{1-\alpha-\beta}} \left(\frac{1-\lambda\tau}{\lambda} \right)^{\frac{1}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{1-\beta}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1-\alpha-\beta}} \quad (7)$$

$$H_\lambda = \frac{\beta(1-\lambda\tau)Y_\lambda}{\lambda W} = A^{\frac{1}{1-\alpha-\beta}} \left(\frac{1-\lambda\tau}{\lambda} \right)^{\frac{1}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{1-\alpha}{1-\alpha-\beta}} \quad (8)$$

$$Y_\lambda = A^{\frac{1}{1-\alpha-\beta}} \left(\frac{1-\lambda\tau}{\lambda} \right)^{\frac{\alpha+\beta}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1-\alpha-\beta}} \quad (9)$$

Where, Y_λ , K_λ and H_λ represent the equilibrium solution to the maximization problem of (4) with parameter λ . $\lambda = 1$ means that the only thing that enterprises pursue is profit and that no other factors are taken into account. Capital investment, labor demand and output corresponding to $\lambda = 1$, are respectively:

$$K_1 = A^{\frac{1}{1-\alpha-\beta}} (1-\tau)^{\frac{1}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{1-\beta}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1-\alpha-\beta}} \quad (10)$$

$$H_1 = A^{\frac{1}{1-\alpha-\beta}} (1-\tau)^{\frac{1}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{1-\alpha}{1-\alpha-\beta}} \quad (11)$$

$$Y_1 = A^{\frac{1}{1-\alpha-\beta}} (1-\tau)^{\frac{\alpha+\beta}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1-\alpha-\beta}} \quad (12)$$

It is easy to show, under $0 < \lambda \leq 1$, that

$$\frac{\partial Y_\lambda}{\partial \lambda} < 0; \quad \frac{\partial K_\lambda}{\partial \lambda} < 0; \quad \frac{\partial H_\lambda}{\partial \lambda} < 0; \quad (13)$$

$$\frac{\partial Y_\lambda}{\partial \tau} < 0; \quad \frac{\partial K_\lambda}{\partial \tau} < 0; \quad \frac{\partial H_\lambda}{\partial \tau} < 0; \quad (14)$$

$$\frac{\partial Y_\lambda}{\partial W} < 0; \quad \frac{\partial K_\lambda}{\partial W} < 0; \quad \frac{\partial H_\lambda}{\partial W} < 0; \quad (15)$$

$$\frac{\partial Y_\lambda}{\partial R} < 0; \quad \frac{\partial K_\lambda}{\partial R} < 0; \quad \frac{\partial H_\lambda}{\partial R} < 0; \quad (16)$$

and therefore,

$$Y_\lambda = A^{\frac{1}{1-\alpha-\beta}} \left(\frac{1-\lambda\tau}{\lambda} \right)^{\frac{\alpha+\beta}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1-\alpha-\beta}} \geq Y_1 \quad (17)$$

$$K_\lambda = \frac{\alpha(1-\lambda\tau)Y_\lambda}{\lambda R} > \frac{\alpha(1-\tau)Y_1}{R} = K_1 \quad (18)$$

$$H_\lambda = \frac{\beta(1-\lambda\tau)Y_\lambda}{\lambda W} > \frac{\beta(1-\tau)Y_1}{W} = H_1 \quad (19)$$

Proposition 1: from equations (13)-(19), we can conclude:

- 1) In equilibrium, the supply of output, demand for capital investment and demand for labor in $\lambda < 1$ are larger than those at $\lambda = 1$. This implies that both private enterprises and SOEs undergoing reform in the PRC invest and employ more than enterprises pursuing profit maximization as their only objective. This may be one of the reasons why the PRC often faces overheating investment and a resulting overheating economy.
- 2) In equilibrium, the supply of output, demand for capital investment and demand for labor are decreasing functions of tax on output. The higher the tax rate, the lower the output supply, and the lower the demand for investment and labor.
- 3) Production costs also have a significant influence on output, demand for investment and demand for labor. Output and demand for investment and labor are also decreasing functions of labor and capital costs. This implies that lower labor and capital costs are factors behind the rapid private sector development of the PRC.
- 4) As the manager's ability increases (the larger A), more workers are hired, greater investment is made and more goods are produced.

We have noted that in the roughly quarter century of reform beginning in 1978, the PRC economy experienced a long period of inflation, which was sometimes called economic overheating. The economic overheating was basically caused by investment overheating dominated by the government. One important reason for this phenomenon is that, as a result of strong government interference and incomplete marketization and privatization, enterprises in the PRC could not pursue profit maximization as their sole objective. Furthermore, soft constraint mechanisms on the supply side pushed actual investment far above the equilibrium of profit maximization, leading to excessive investment and to marginal productivity below the equilibrium of profit maximization. Clearly, this proposition also gives us two other reasons for the rapid development of the private sector, i.e., the lower costs of labor and capital.

5.4 Determination of the Residual Profits of Firms and Their Impact on the Banking Sector

It is well known that a profit maximization-seeking enterprise can efficiently use the resources available to it. However, this is not necessarily true for non-profit maximization-seeking enterprises. We can see from the following that when there is not sufficient marketization or privatization, even if a firm employs more labor and more capital inputs, it might only obtain negative profits.

According to the residual profit function:

$$\begin{aligned} \pi_\lambda &= (1 - \tau)AK^\alpha H^\beta - (KR + HW + C) \\ &= \left[(1 - \tau) - (\alpha + \beta) \cdot \left(\frac{1 - \lambda\tau}{\lambda} \right) \right] \cdot A^{\frac{1}{1-\alpha-\beta}} \left(\frac{1 - \lambda\tau}{\lambda} \right)^{\frac{\alpha+\beta}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1-\alpha-\beta}} - C \end{aligned} \quad (20)$$

It is easy to show that the first term of the right side of the above equation is negative when $\lambda < (\alpha + \beta) / [1 - (1 - \alpha - \beta)\tau]$ and then $\pi_\lambda < 0$. In addition, since $0 < \lambda \leq 1$ and $\frac{1}{\lambda} > 1$, the partial derivative of residual profit with respect to λ is an increasing function of privatization variable λ due to:

$$\frac{\partial \pi_\lambda}{\partial \lambda} = \frac{\alpha + \beta}{1 - \alpha - \beta} \cdot \left(\frac{1 - \lambda \tau}{\lambda} \right)^{\frac{1}{1 - \alpha - \beta}} \cdot \left(\frac{1}{\lambda} - 1 \right) \cdot \left(\frac{1}{(1 - \lambda \tau)^2} \right) \cdot A^{\frac{1}{1 - \alpha - \beta}} \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1 - \alpha - \beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1 - \alpha - \beta}} > 0$$

(21)

To assure the existence of enterprises¹⁷, it is reasonable to assume that the firm produces a positive residual profit to pay for the manager's ability. Therefore, a reasonable assumption will be $(1 - \tau) - (\alpha + \beta) \cdot \left(\frac{1 - \lambda \tau}{\lambda} \right) > 0$, or $\lambda > \frac{\alpha + \beta}{1 - (1 - \alpha - \beta)\tau}$ ¹⁸ in case of $0 < \lambda \leq 1$. We have

$$\frac{\partial \pi_\lambda}{\partial A} = \frac{1}{1 - \alpha - \beta} \left[(1 - \tau) - (\alpha + \beta) \cdot \left(\frac{1 - \lambda \tau}{\lambda} \right) \right] \cdot \left(\frac{1 - \lambda \tau}{\lambda} \right)^{\frac{\alpha + \beta}{1 - \alpha - \beta}} \cdot A^{\frac{\alpha + \beta}{1 - \alpha - \beta}} \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1 - \alpha - \beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1 - \alpha - \beta}}$$

$$\frac{\partial \pi_\lambda}{\partial A} \geq 0, \lambda \geq (\alpha + \beta) / [1 - (1 - \alpha - \beta)\tau] \quad (22)$$

$$\frac{\partial \pi_\lambda}{\partial \tau} = \frac{-[(1 - \alpha - \beta)\lambda(1 - \tau) + (1 - \lambda)]}{(1 - \alpha - \beta) \cdot (1 - \lambda \tau)} \cdot A^{\frac{1}{1 - \alpha - \beta}} \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1 - \alpha - \beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1 - \alpha - \beta}} < 0 \quad (23)$$

$$\frac{\partial \pi_\lambda}{\partial C} = -1 < 0 \quad (24)$$

Proposition 2: from the discussion above, we have:

- 1) When λ is sufficiently small such that $\lambda < \frac{\alpha + \beta}{1 - (1 - \alpha - \beta)\tau}$, the residual profit will be negative. When $\lambda = 1$, the residual profit is maximized.
- 2) Lowering the entrance cost will promote the residual profit or income of the enterprise manager.
- 3) If λ is sufficiently large such that $\lambda > \frac{\alpha + \beta}{1 - (1 - \alpha - \beta)\tau}$, the manager's ability is positively related to the residual profit. This implies that it is correct to connect the manager's income to the enterprise's residual profit. This conclusion fits well with firm contract theory. If λ is small enough and the capital is financed by bank loans, enterprises might not have sufficient funds to pay back their loan and eventually may go bankrupt if they do not carry out further reform.
- 4) The profit of enterprises will decrease if the output tax rises.

5.5 Determination of the Number and Size of Private enterprises

¹⁷ It is difficult for an enterprise to survive with a negative residual profit. A negative profit means nothing can be paid for the manager's ability and no one with that ability would wish to become a manager.

¹⁸ In the case of $\lambda < (\alpha + \beta) / [1 - (1 - \alpha - \beta)\tau]$, there will not be any residual profit paid for manager's ability. This type of firm has no reason to exist in the long run. This may explain why SOEs eventually go bankrupt: they pay too much attention to nonprofit objectives.

Let us now turn to how the number and average size of enterprises is determined. In the labor market, each individual has to decide whether to opt to be hired as a worker and earn wages or to run an enterprise and earn additional residual profits. The decision depends on how much the individual can earn in either of the two professions. If one chooses to be a worker one earns wage W ; if one chooses to run an enterprise one earns residual profit π_λ ¹⁹. The rule therefore is that a person will be a manager if the residual profit owned by the manager $\pi_\lambda \geq W$ ²⁰; otherwise, he or she will be a worker. Rewriting this formula, we find:

$$\left[(1-\tau) - (\alpha + \beta) \cdot \left(\frac{1-\lambda\tau}{\lambda} \right) \right] \cdot A^{\frac{1}{1-\alpha-\beta}} \left(\frac{1-\lambda\tau}{\lambda} \right)^{\frac{\alpha+\beta}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1-\alpha-\beta}} - C \geq W \quad (24)$$

This formula implies that a manager earns a residual profit that is not smaller than the wage earned by a worker. If all other conditions are equal, we can find the solution of A in the equation:

$$\left[(1-\tau) - (\alpha + \beta) \cdot \left(\frac{1-\lambda\tau}{\lambda} \right) \right] \cdot A^{\frac{1}{1-\alpha-\beta}} \left(\frac{1-\lambda\tau}{\lambda} \right)^{\frac{\alpha+\beta}{1-\alpha-\beta}} \cdot \left(\frac{\alpha}{R} \right)^{\frac{\alpha}{1-\alpha-\beta}} \cdot \left(\frac{\beta}{W} \right)^{\frac{\beta}{1-\alpha-\beta}} - C = W \quad (25)$$

Assuming that the solution of (25) for A is \bar{A} , which can be called the marginal managerial ability or ability threshold for a person to be a manager. This means that there is a person with ability \bar{A} , who can be called a marginal manager (Christina Gathmann, 2001 [8]), and who is indifferent between being a manager or a worker. In both professions the person will have the same income. Now we can solve for the location of a marginal manager with ability \bar{A} . Still assuming $\lambda > \frac{\alpha + \beta}{1 - (1 - \alpha - \beta)\tau}$ as before, we have

$$\bar{A} = \frac{(C + W)^{1-\alpha-\beta}}{\left[(1-\tau) - (\alpha + \beta) \cdot \left(\frac{1-\lambda\tau}{\lambda} \right) \right]^{1-\alpha-\beta} \cdot \left(\frac{1-\lambda\tau}{\lambda} \right)^{\alpha+\beta} \cdot \left(\frac{\alpha}{R} \right)^\alpha \cdot \left(\frac{\beta}{W} \right)^\beta},$$

and

$$\frac{\partial \bar{A}}{\partial \lambda} < 0 \quad (26)$$

$$\frac{\partial \bar{A}}{\partial w} > 0 \quad (27)$$

$$\frac{\partial \bar{A}}{\partial R} > 0 \quad (28)$$

¹⁹ Following modern firm contract theory, if control rights are separated from ownership, residual income is related to the ability of managers. Thus, it should be indicated in the contract of a firm with managers that the residual income should be at least partly owned by the managers, in order to encourage managers to work hard for the firm. For the sake of easy explanation, we assume here that the residual income (profit) totally belongs to managers.

²⁰ From an accountant's view, the profit is divided into two parts, the normal profit KR and the residual profit π_λ . The contribution of capital is normal profit KR , which is gained from ownership.

$$\frac{\partial \bar{A}}{\partial C} > 0 \quad (29)$$

$$\frac{\partial \bar{A}}{\partial \tau} > 0 \quad (30)$$

Formula (26) implies that the more attention an enterprise pays to profit (that is, the larger λ), the lower is the marginal manager's ability (that is, the smaller \bar{A}). The logic behind this conclusion is: as an enterprise pays more attention to profit, its residual profit (the part over normal profit "KR") increases (see Proposition 1), and this means that even a person with low managerial ability to run an enterprise can earn residual profits exceeding the wages earned as a worker. Equivalently, the threshold for becoming a manager falls with the progress of privatization and marketization. With the progress of privatization and marketization, government intervention becomes less and more and more people are expected to join the group of managers. This means that more enterprises will be established. This may be one of the reasons why the number of private enterprises in the PRC has risen so quickly.

Formulas (27), (28), (29) and (30) tell us that the marginal manager's ability increases with labor costs, capital costs and entrance costs. Hence, the rapid development of the private sector in the PRC can be at least partly attributed to lower labor and capital costs. Formula (29) also implies that higher costs to entry and uneven treatment of the private sector lead to higher marginal manager's ability, leading to the establishment of fewer private enterprises. The logic behind the conclusions induced from (27), (28), (29) and (30) is almost the same: lower costs, including factor costs, taxes and costs to entry, make the production process more profitable, allowing persons with lower management ability to earn more as managers than as workers. This implies that lower management ability is required for a person to run an enterprise and earn the same profit as before. In other words, the marginal manager's ability is reduced.

If considering the difference of managerial ability "A" among people and also taking account of the learning effect of managerial ability with the progress of privatization and marketization (i.e. managerial ability is assumed to grow with privatization and marketization), it is relevant to assume that managerial ability "A" in a population is a random variable distributing with a continuous probability distribution function $F(x; \lambda)$ ²¹ with parameter λ , representing the probability of a person's managerial ability less than x

$$P(A < x) = F(x; \lambda)$$

and a continuous density function of A

$$\frac{\partial F(x; \lambda)}{\partial x} = F'_x(x; \lambda) = f(x; \lambda)$$

where " $f(x; \lambda) > 0$ " means that $F(x; \lambda)$ is an increasing function of x in light of characteristics of distribution function and " $\frac{\partial F(x; \lambda)}{\partial \lambda} < 0$ " means $F(x; \lambda)$ is a decreasing function of λ . In other

words, given the level of managerial ability x , if there is a learning effect, the ratio of people with managerial ability above x will increase with privatization and marketization and the ratio of workers with managerial ability less than x will decrease. It is clear that this result is in accord with our intuition.

²¹ Precise distribution of A should be a discrete distribution due to the assumption of limited number of people.

Since the ability of people in the economy follows a probability distribution function $F(x; \lambda)$, which is an increasing function of x , all people with ability below marginal level \bar{A} in the distribution become workers and those with ability above \bar{A} become managers. Therefore, if the total number of people looking for jobs in the economy is N , the numbers of workers will be $N_l = NF(\bar{A}; \lambda)$, and the numbers of firms will be $N_m = N(1 - F(\bar{A}; \lambda))$. Taking the partial derivatives of N_l and N_m with respect to independent variables, we find:

$$\frac{\partial F(\bar{A}; \lambda)}{\partial \bar{A}} = f(\bar{A}; \lambda) > 0, \quad (31)$$

$$\frac{\partial N_m}{\partial N} = 1 - F(\bar{A}; \lambda) > 0, \quad (32)$$

$$\frac{\partial N_l}{\partial N} = F(\bar{A}; \lambda) > 0, \quad (33)$$

$$\frac{\partial N_l}{\partial \bar{A}} = Nf(\bar{A}; \lambda) > 0, \quad (34)$$

$$\frac{\partial N_m}{\partial \bar{A}} = -Nf(\bar{A}; \lambda) < 0, \quad (35)$$

$$\frac{\partial N_l}{\partial \lambda} = N \cdot \left[f(\bar{A}; \lambda) \frac{\partial \bar{A}}{\partial \lambda} + \frac{\partial F(\bar{A}; \lambda)}{\partial \lambda} \right] < 0 \quad (36)$$

$$\frac{\partial N_m}{\partial \lambda} = -N \cdot \left[f(\bar{A}; \lambda) \cdot \frac{\partial \bar{A}}{\partial \lambda} + \frac{\partial F(\bar{A}; \lambda)}{\partial \lambda} \right] > 0 \quad (37)$$

$$\frac{\partial N_m}{\partial C} = \frac{\partial N_m}{\partial \bar{A}} \cdot \frac{\partial \bar{A}}{\partial C} < 0 \quad (38)$$

$$\frac{\partial N_m}{\partial R} = \frac{\partial N_m}{\partial \bar{A}} \cdot \frac{\partial \bar{A}}{\partial R} < 0 \quad (39)$$

$$\frac{\partial N_m}{\partial W} = \frac{\partial N_m}{\partial \bar{A}} \cdot \frac{\partial \bar{A}}{\partial W} < 0 \quad (40)$$

Formulas (36) and (37) indicate that the number of private enterprises is an increasing function of λ , and the number of workers is a decreasing function of λ (the variable of marketization and privatization). Formulas (38), (39) and (40) indicate that the number of private enterprises is a decreasing function of factor cost R , W and entrance cost C faced by private enterprises. Thus, we have proposition 3.

Proposition 3: if all other conditions are constant, both the number of enterprises and laborers will increase with total employment. The progress of marketization and privatization, and the fall in labor costs, capital costs and entrance costs will cause the number of private enterprises to rise, but the progress of marketization and privatization cause demand for workers to go down.

Now let us look at the determination of average firm size. There are many indicators for measuring firm size; one is the average number of workers per firm, which is attained by measuring the total number of workers in the economy divided by the total number of firms (managers), denoted by S :

$$S = \frac{F(\bar{A}; \lambda)}{1 - F(\bar{A}; \lambda)} \quad (41)$$

By taking derivative of S, we have:

$$\frac{\partial S}{\partial \bar{A}} = \frac{f(\bar{A}; \lambda)}{(1 - F(\bar{A}; \lambda))^2} > 0, \quad (42)$$

and

$$\frac{\partial S}{\partial \lambda} = \frac{\partial S}{\partial \bar{A}} \cdot \frac{\partial \bar{A}}{\partial \lambda} + \frac{1}{(1 - F(\bar{A}; \lambda))^2} \frac{\partial F(\bar{A}; \lambda)}{\partial \lambda} < 0 \quad (43)$$

$$\frac{\partial S}{\partial C} = \frac{\partial S}{\partial \bar{A}} \cdot \frac{\partial \bar{A}}{\partial C} > 0 \quad (44)$$

$$\frac{\partial S}{\partial W} = \frac{\partial S}{\partial \bar{A}} \cdot \frac{\partial \bar{A}}{\partial W} > 0 \quad (45)$$

$$\frac{\partial S}{\partial R} = \frac{\partial S}{\partial \bar{A}} \cdot \frac{\partial \bar{A}}{\partial R} > 0 \quad (46)$$

Formula (41) expresses the function of how firm size varies with marginal managerial ability and the privatization and marketization parameter λ . (42) Indicates that firm size S is positively related to marginal managerial ability \bar{A} ; namely, the higher the marginal managerial ability, the higher the threshold for a person to be a manager, or the harder for a manager to create a firm. The higher threshold for people to establish a firm means that fewer people have management ability higher than \bar{A} . Because the number of managers equals firm number as assumed, fewer enterprises are established.

Formula (43) shows that the deepening of privatization and marketization (that is, the increase in λ) has two effects on firm size. One is threshold effect. That is, privatization and marketization directly lower the threshold for a person to establish an enterprise. The other is learning effect. That is, managerial ability rises with privatization and marketization, making people more likely to start up firms and less likely to be workers. Since both effects make it easier to set up firms, privatization and marketization will lead to more and more new firms being established. On the other side, new firms are usually relatively small, making the average size of enterprises small as well. In the PRC, the average firm size of private enterprises decreased from 18 in 1989 to 14 in 2002; this can be at least partly attributed to the privatization and marketization process. Privatization and marketization increase firm's profits and lower the threshold or marginal managerial ability (required ability to create an enterprise). We can provide a similar but much easier explanation for (45), (46) and (47): the lower the cost, the more residual profit the manager will earn and the lower will be the ability required for a person to run a profitable enterprise. More people will become managers and more firms will be established. To summarize the above analysis, we obtain the following conclusions from (41)-(47).

Proposition 4: at equilibrium, the average firm size is determined by the marginal manager's ability and "learning by doing" effect of marketization and privatization. Since marginal managerial ability depends on marketization and privatization, labor costs, capital costs and entrance costs, if every other factor is equal, the threshold to create a new company will fall with the deepening of marketization and privatization, meaning that it becomes easier to create a new company, and the average size of firms will fall. With the fall of entrance, labor and capital costs, the average

firm size will decrease as well. Additionally, a learning effect will lift people's managerial ability and mean that fewer will be workers, so the learning effect will also lead to smaller firm size.

In addition, under the model there is a managerial ability threshold (marginal level of manager's ability) for creating firms and all firms with a managerial ability over the threshold can survive. In accord with the real world, firms of different sizes can co-exist at the same time. Of course, if the firm's manager's ability falls below the threshold, the firm will die. The difference between firms with different managerial ability can be found in different residual profits and manager's revenue. Only if an individual has more managerial ability than the marginal level, can he or she earn more than a worker's wages.

5.6 Implications Derived from the Model

As far as the CASS survey is concerned, it seems that all firms pursue three objectives to a greater extent or lesser extent: maximization of profit, sales revenue and market share. Though the difference in behavior between firms may be large, we do not see a significant difference in their behavioral patterns among sectors. From the model analysis, we find that enterprises with multiple objectives have larger demand for investment and labor, and tend to produce more output than those with the single objective of profit maximization do. This accords with the objectives of the government sector in pursuing the maximization of economic growth and more employment opportunities. However, enterprises with multiple objectives may be less competitive than those with a single objective of profit maximization, since they earn smaller profits. Even worse, since the marginal productivity of capital is less than its cost, profits tend to become negative, and enterprises may be unable to repay back their loans to the banks. This results in a weakening of the foundation for the existence of the enterprise, or to non-performing loans in the banking sector. In other words, SOEs actually redistribute state-owned assets through negative profits and relatively high salaries that cannot be justified from the real contribution of labor to output. That is why we pointed out previously that the reform of SOEs and collective enterprises itself is, from the very beginning, a privatization process in some sense.

The model analysis also tells us that the costs of all production factors, including capital, labor, tax and entrance, are important to economic development. As is well known, the PRC has relatively low labor costs and the real interest rate is usually negative. These are important factors contributing to the rapid development of its private sector.

The model helps to explain why the number of private enterprises has increased so rapidly simultaneous with a scaling down of size. The increase in the number of enterprises depends on privatization and marketization, labor and capital costs, entrance costs and the tax rate. The deepening of privatization and marketization, relatively lower labor and capital costs, and falling entrance costs, all contribute to increases in the number of private enterprises.

By considering a more dynamic model, in which manager's ability itself experiences a "learning by doing" process with the progress of marketization and privatization, we conclude that that average firm size is positively related to the marginal manager's ability and negatively related to privatization and marketization. Hence, the decrease in firm size should mostly be attributable to the fall in marginal manager's ability and deepening of privatization and marketization. Since marginal manager's ability is positively related to a variety of costs and negatively related to the deepening of marketization and privatization, the fall of entrance costs and other costs all contribute to decreasing firm size.

The model also provides us with a general framework of development economics. It at least partly helps to explain why the “big bang” reform in Russia brought about widespread collapses of privatized SOEs during a short period of time, and to some extent helps to explain why gradual reform has been somewhat successful in the PRC. According to this model, the development of private enterprises not only depends on privatization and marketization, but also on a variety of other factors, such as capital cost, labor cost, entrance cost, tax and especially the manager’s ability. If other conditions are constant, bigger enterprises require higher managerial ability and skill, and thus only firms with appropriate marginal ability can survive in a market economy. If a big firm is run by a manager with low ability, it will lose profits and eventually go bankrupt. The collapse of privatized SOEs in Russia may be attributed to this matching problem. As is well known, in the early period of reform, most private enterprises in Russia were created from the privatization of SOEs through the big bang reform. Those former SOEs were usually very big in size, and therefore they required high managerial ability. However, most of the managers only had experience running enterprises under a planned economy, and had little knowledge about running them under the conditions of a market economy. In other words, they had little ability to manage big private enterprises, and eventually many faced failure.

Unlike the big bang reform in Russia, where the transformation from SOEs to private enterprises was implemented in a very short period of time, the PRC adopted a series of market-oriented measures to encourage the development of private enterprise. Specifically, managers in the newly established enterprises are continuously encouraged to improve their management ability, and in fact some have gained the ability to manage large enterprises. This has helped prepare the conditions for privatizing SOEs through mergers or acquisitions.

Unlike Russia, when the PRC started to privatize its SOEs, it had already created a mass of managers whose ability, skill and market awareness have been improved. In other words, at the cost of government assets, the PRC has trained a mass of high-level managers matching the size of enterprise. In addition, during the course of their development, the newly established private enterprises have not only educated a number of high level managers, but also accumulated a great deal of wealth, which has also paved the way for the privatization of SOEs. In other words, private enterprises have become capable of buying SOEs.

On the other hand, due to the rather high political profile of SOEs in the past (see Chapter 1), the PRC did not privatize its SOEs immediately; leaving their nominal ownership unchanged, it carried out a so-called contract responsibility system. Under these circumstances, the same matching problem as that envisaged under the big bang reform existed. As a result, many SOEs inevitably faced losses. (See Section 4.6.) However, unlike in the big bang reform, where individuals took losses, under the gradual reform in the PRC, the government typically absorbed the losses in the early stage of reform. This process quickly eroded state financial resources, including fiscal and banking resource, and state-owned liabilities came increasingly closer to assets. Once the government (including state-owned banks) becomes unable to absorb the losses incurred by SOEs, the acceleration of privatization reform becomes inevitable. This is the background of the so-called “Zhuan Da Fang Xiao” reforms put forward in 1995.

In conclusion, this model has strong policy implications. SOEs, TVEs and the banking sector all should actively and continuously carry out market-oriented reforms. Private enterprises need to promote their market awareness, and thereby to transform themselves into pure profit-maximization entities.

6. Cross-Sector and Time Series Analysis of Firm Performance

In Chapter 5, we created a model to explain some of the characteristics observed in the development of the private sector in the PRC. Generally speaking, this model, though relatively simple, seems to be sufficient to explain our observations of the private sector. However, to gain a more detailed understanding, it would be helpful to have cross-sectional and time series analysis of the data surveyed by CASS on SOEs, collective enterprises and private enterprises. In the PRC, as indicated above, more radical SOE reform (especially of SME enterprises) started from 1995. By correlating economic performance indicators of different types of enterprises with factors dependent on reform, we can gain deeper insight into private sector development. To carry out such an analysis, we classified the surveyed sample firms into three groups according to their original registration status (see Appendix 1), though this status may have changed with the progress of reform. The first group included 79 SOEs, the second 74 collective enterprises, and the third 347 non-public enterprises. Here, non-public enterprises include all those other than SOEs and collective enterprises. In addition, 20 private enterprises were investigated separately.²²

6.1 Descriptive Statistics by Sector and Time

6.1.1 Export Dependence and Efficiency Indices

Different types of enterprises are exposed to the outside world to differing degrees. On average, from 1994 to 1999, the collective enterprises were most dependent on exports for value added, followed by non-public enterprises, SOEs, and private enterprises. Looking at the trend, both SOEs and collective enterprises continue to decline and non-public enterprises to rise. In 1999, non-public enterprises had the highest dependence on exports, and private enterprises the least.

Row 3 in Table 6.1 shows that non-public enterprises and private enterprises are more efficient than collective enterprises and SOEs in terms of profit ratio to value added. The average profit ratios for these enterprises are 16%, 11.6%, 8.9% and 4.4%, respectively. However, through the economic transition and perhaps due to the stimulative macroeconomic policy, both SOEs and collective enterprises seem to have halted their profit declines. For example, in 1994 when the PRC economy was overheating, the profit rate of SOEs was 10%; this rate fell to -4.6% in 1997. However, it then recovered to 7.3% in 1999. The table also shows that the profit rate of non-public enterprises declined. Perhaps because of firm size, SOEs make the largest contribution to government tax, followed by non-public enterprises and collective enterprises. The contribution of private enterprises is the lowest. This may be one of the reasons why the government did not actively encourage private sector development. Table 6.1 also shows that the non-public sector, which presumably has higher marketization and privatization experiences than SOEs and

²² Looking at registration status, there are more than ten types of enterprises (Appendix 1. Definition and Classification of Enterprises by Registered Status). The socialist PRC implemented a public ownership system in the past. Usually SOEs and collective enterprises are called public enterprises, and others are called non-public enterprises. Non-public enterprises usually have lower equity assets owned by the state or collective, and have higher privatization exposure. Broadly speaking, non-public enterprises are also called private enterprises by some scholars. It should be noted that private enterprises are included in non-public enterprises. In addition, since only few private enterprises were surveyed, and also some indicator data were not available, we compare SOEs, collectives and non-public firms. Of course, we make a separate investigation of private enterprises.

collective enterprises, is also more efficient in terms of the profit rate. This follows from proposition 2 in Chapter 5, i.e. the higher the privatization, the larger the profit²³.

Table 6.1. Export Dependence and Performance

Year	Export /value added	Profit /value added	Value added tax rate	Income tax /value added
State owned enterprises (sample: 79)				
1994	13.4%	10.0%	16.9%	2.8%
1995	12.0%	6.2%	15.2%	2.2%
1996	9.7%	5.0%	16.5%	2.1%
1997	11.5%	-4.6%	17.6%	1.9%
1998	5.8%	2.4%	17.0%	1.5%
1999	5.8%	7.3%	18.4%	3.0%
Average	9.7%	4.4%	16.9%	2.2%
Collective enterprises (sample: 74)				
1994	18.8%	4.7%	8.7%	2.4%
1995	14.3%	7.8%	11.6%	1.4%
1996	13.3%	7.3%	10.5%	1.9%
1997	14.2%	7.1%	7.6%	1.1%
1998	12.7%	12.4%	8.1%	1.4%
1999	11.2%	13.8%	9.8%	1.9%
Average	14.1%	8.9%	9.3%	1.7%
Non-public enterprises including private ones (sample: 347)				
1994	11.6%	22.6%	15.1%	3.5%
1995	11.6%	14.7%	13.5%	3.5%
1996	11.8%	18.2%	14.4%	3.9%
1997	13.5%	16.5%	13.5%	4.1%
1998	12.2%	11.5%	15.0%	4.1%
1999	12.3%	12.4%	16.6%	4.3%
Average	12.2%	16.0%	14.7%	3.9%
Private enterprises (sample: 20)				
1994	6.9%	9.8%	7.8%	1.2%

²³ Further evidence for the efficiency of non-public enterprises:

Asset Utilization Efficiency in Beijing in 2002 (Unit: %)

	SOE	Collective	Mixed	Private	Foreign
Asset/Liability Ratio	84	86	77	60	60
Profit on Gross Assets	0.39	N.A.	0.74	3.43	4.06

(Source) *China Economic News*

Labor and Capital Efficiency of Beijing in 2002 (Unit: RMB1million)

	SOE	Collective	Non-Public	Mixed
Operation turnover per employee	0.36	0.139	0.454	0.447
Operation turnover generated by RMB 100	140*	140*	156	149

Source: *China Economic News*

Note: Numbers with "*" include Collectives.

1995	7.7%	16.4%	8.2%	2.8%
1996	5.7%	10.0%	8.3%	2.2%
1997	3.2%	16.9%	11.7%	3.3%
1998	3.9%	12.3%	8.2%	2.4%
1999	2.5%	4.3%	9.8%	2.9%
Average	5.0%	11.6%	9.1%	2.5%

6.1.2 Proportion of Equity Owned by the State and Collectives by Enterprise Type

Table 6.2 shows that the equity assets owned by state and collectives shrunk for all types of enterprises. The ratio of SOEs fell from 0.92 in 1994 to 0.85 in 1999; in the case of collective enterprises the ratio falls from 0.78 in 1994 to 0.54 in 1999, for non-public enterprises, it fell from 0.64 to 0.25 during the same period. For private enterprises the ratio was stable or equal to zero. It is clear that until 1999, the equity of state and collectives dominated enterprises under reform, in turn giving local governments an excuse for intervening in the internal affairs of firms. This indicates that there were still much work to do for SOEs and collective enterprises in pursuing privatization.

Table 6.2. Proportion of Equity Owned by the State and Collectives by Enterprise Type

Year	State enterprises	Collective enterprises	Non-public enterprises	Private
1994	0.92304	0.781822	0.64364	0
1995	0.896631	0.780715	0.61508	0
1996	0.87218	0.69853	0.55032	0
1997	0.843529	0.735273	0.439024	0
1998	0.825743	0.62997	0.333612	0
1999	0.858524	0.54321	0.252048	0

6.1.3 Interest Payments and Wage Rate

The main production costs faced by enterprises are capital costs and labor wages. In terms of capital costs, Table 6.3 shows the median (med) for the interest/liability ratio and median, maximum and standard deviation for wage rates. From it, we find the following characteristics. Firstly, the interest/liability ratio fluctuates widely from a low level to high level and again to a low level. One of the reasons for this is that interest rates fluctuate with the macroeconomic environment. During the period from 1994 to 1999, the PRC experienced shocks both from overheating investment around 1994 and the Asian crisis in 1997.

Secondly, due to the lack of incentive mechanisms linking responsibility and rewards for the management, as well as the ambiguity of property rights in traditional SOEs, both SOEs and state-owned banks lacked sensitivity to investment risk. Soft budget constraints led some SOE managers to fail to consider the repayment of interest and even principal of bank loans. Thirdly,

a considerable number of insolvent firms went bankrupt during the reform.

Median wage levels differ among different types of firms. Non-public enterprises enjoy the highest wages among the four, followed by SOEs, collective enterprises and private enterprises. Taking into account the fact that collective enterprises and private enterprises enjoy less social security and welfare, their real income is even lower.

Lastly, if we compare wage difference within SOEs, collectives and non-public enterprises, we find that, in addition to the relatively low wage in collectives and private enterprises, the wage rate gap is also smaller in collectives and private enterprises than in SOEs and non-public enterprises²⁴.

Table 6.3. Ratio of Interest to Total Liabilities and Wage Rate
(Unit for level variable: RMB1000)

Year	Med interest/liability	Med wage	Max wage	Sd wage
State owned enterprises (sample: 79)				
1994	0.055658	5.688971	64.344	7.777778
1995	0.067056	6.204107	35.58442	4.575803
1996	0.086943	6.539065	43.02857	5.477269
1997	0.044444	6.858361	52.6087	6.695269
1998	0.090768	6.816817	58.35714	7.323876
1999	0.028988	7.492754	98.34563	13.40613
Collective enterprises (sample: 74)				
1994	0.062163	4.215968	14.64912	3.299597
1995	0.075373	4.594872	12.59816	2.879865
1996	0.052155	5	13.68013	3.118192
1997	0.047102	5.91655	64.5614	7.86774
1998	0.050212	5.728856	18.78302	3.657568
1999	0.043167	5.66183	16.44	3.544615
Non-public enterprises (sample: 347)				
1994	0.046653	5.669173	6731.096	469.7343
1995	0.057803	6.364026	8555.243	704.6217
1996	0.054092	7.021446	8470.263	678.987
1997	0.044382	7.2	9191.892	657.4989
1998	0.03565	7.304954	9879.1	696.5075
1999	0.024188	7.493902	10098.02	693.2713
Private enterprises (sample: 20)				
1994	0.041176	6	15.23077	3.576098
1995	0.080559	6.085714	15	3.496507
1996	0.064481	6	14.66923	3.45675
1997	0.059091	5.30303	9.927711	2.960413
1998	0.064118	5.666667	9.6	2.707059
1999	0.031004	5.85	10.375	3.073779

²⁴ For the limit of relatively small number of sample, conclusion for private enterprises may not be generalized.

6.1.4 Structure of Employment

The size of enterprises measured by number of employees is listed in Table 6.4. It shows that with the progress of reform, SOEs, collectives and non-public enterprises became smaller, in accordance with Proposition 4 in Chapter 5. However, if we look at private enterprises separately, we find that they enjoyed an increase in the number of employees, although the size remained small.

In Table 6.5, the employees of the surveyed enterprises are classified into five categories, i.e. ordinary workers, managers, technicians, temporary staff and laid-off workers. In terms of the number of ordinary workers, the average proportions of SOEs between 1994 and 1999, collectives, non-public and private enterprises are 70.8%, 68.2%, 71.9% and 62% respectively. The proportion of ordinary workers in SOEs shows a declining trend, while the number of laid-off workers shows an increasing trend; this is the outcome of the policy called "reduce the number of staff in order to promote efficiency." In collective enterprises, the composition of employment is relatively stable, fluctuating at between 66% and 68%. An outstanding characteristic of non-public enterprises is that more ordinary and temporary workers were laid off while the proportion of technicians rose. In comparison, private enterprises had fewer ordinary workers and more temporary workers than the other types.

Table 6.4. Average Number of Employees

Year	State	Collective	Non-public	Private
1994	978.2029	448.6724	1053.81	139.4667
1995	1014.145	454.6769	1061.543	160.0667
1996	997.4306	450.2388	1050.442	170.1333
1997	968.5658	438.6944	1048.329	205.0588
1998	871.9211	403.3562	929.0652	184.6316
1999	766.5256	411.9595	869.2912	175.2

Table 6.5. Structure of Employment

Year	Ordinary worker	Manager	Technician	Temporary worker	Laid off
State owned enterprises (sample: 79)					
1994	0.733984	0.11734	0.083694	0.061589	0.003393
1995	0.726649	0.123271	0.081657	0.061292	0.007131
1996	0.718847	0.119683	0.077324	0.063566	0.020581
1997	0.714757	0.114833	0.077719	0.057179	0.035511
1998	0.700993	0.11318	0.0857	0.053134	0.046992
1999	0.652946	0.115556	0.096289	0.055997	0.079212
Average	0.708029	0.117506	0.083193	0.059041	0.029868
Collective enterprises (sample: 74)					
1995	0.661684	0.138695	0.062496	0.105265	0.00626
1996	0.687284	0.125406	0.066234	0.105781	0.010542

1997	0.692037	0.124929	0.061546	0.104857	0.019914
1998	0.688754	0.122601	0.069791	0.1153	0.013109
1999	0.679199	0.121109	0.073446	0.110874	0.013744
Average	0.680827	0.130825	0.066631	0.109229	0.011638
Non-public enterprises (sample: 347)					
1994	0.729733	0.091154	0.075605	0.094352	0.009156
1995	0.740599	0.089944	0.073689	0.092955	0.002813
1996	0.746683	0.0882	0.077609	0.081734	0.005774
1997	0.720765	0.09204	0.08202	0.074752	0.030423
1998	0.689609	0.094243	0.084494	0.073063	0.058591
1999	0.684256	0.094306	0.094576	0.071871	0.054991
Average	0.718607	0.091512	0.080852	0.081944	0.025419
Private enterprises (sample: 20)					
1994	0.535851	0.134321	0.073614	0.256214	0
1995	0.60683	0.10329	0.05706	0.23282	0
1996	0.625	0.099138	0.059561	0.216301	0
1997	0.690189	0.080608	0.056799	0.172404	0
1998	0.657925	0.094071	0.072121	0.175884	0
1999	0.617295	0.108162	0.08105	0.181507	0.011986
Average	0.622182	0.101475	0.066402	0.202431	0.00203

6.2 Cross-Sector and Time Series Regressions of Output Growth

In this section, by carefully selecting variables that may be correlated, we explore the main factors that influenced the output of the surveyed firms between 1994 and 1999. This analysis is based on a general framework of a generalized production function and pooled data regressions. This approach allows us to understand how output was affected by what factors. Based on the regression equations, we can identify positive and negative factors that affect enterprise performance, and eventually uncover evidence supporting some of our propositions put forward above.

The empirical study that follows is based on a revised neo-classical production function. As is well known, most neo-classical production functions use a Cobb-Douglas production function with constant returns to scale and double factors, i.e. labor and capital (Zhao Zhijun, 2002 [42]). In Chapter 5, we cited some defects of this type of production function. Economists are usually classified into two schools depending on their views on economic growth momentum, i.e. the exogenous school and endogenous school. Some economists, such as Romer, 1986 [24], attempt to explain economic growth by introducing endogenous variables. Others, such as Mankiw, Romer, and Weil, 1992 [21] and Barro and Sala-i-Martin, 1995 [4], emphasize that neoclassical models with exogenous technology can interpret economic growth once human capital is introduced into the model as an exogenous variable.

Following the ideas of Mankiw, Romer, and Weil, 1992 [21], here, in addition to fixed assets, we consider ordinary workers, managers and technicians as different production factors, and place them into the model as factors influencing output. Given that the PRC is experiencing reform and pursuing privatization and marketization and that its capital structure is constantly changing in a way that is considered to be important momentum for economic growth (Zhao, 2002 [42]), we

introduce a proxy to represent privatization. We take the proportion of equity owned by state and collectives to total equity as a proxy for the capital structure variable. Under these assumptions, we specify the production function as follows:

$$output = F(labor, fixedassets, manager, technician, structure)$$

It is well known that economic time series with level variables often produce “unit roots” and cause false regressions. In order to avoid this, we assume that the logarithm of the production function is approximately a linear logarithm function of the factors and the growth rate of output can be expressed as a difference of the linear logarithm function:

$$d \ln output_{it} = C + \beta_1 \cdot d \ln labor_{it} + \beta_2 \cdot d \ln fixedassets_{it} + \beta_3 \cdot d \ln manager_{it} + \beta_4 \cdot d \ln technician_{it} + \beta_5 \cdot d \ln structure_{it} + \varepsilon_{it}$$

Where “ $d \ln output$ ” is the dependent variable, representing the difference of the logarithm of value added; “ $d \ln labor$,” “ $d \ln fixedassets$,” “ $d \ln manager$,” “ $d \ln technician$,” and “ $d \ln structure$ ” represent differences in the logarithms of labor, fixed assets, managers, technicians and structure, respectively. The constant “C” can be regarded as an effect of other exogenous variables. The subscript i identify cross section variables of firm i , and time t . Correspondingly, these differences with respect to time can be treated as the growth rate. ε_{it} is the effect of random shocks from unobserved factors.

Next we turn to the empirical outcome of this equation for SOEs, collective and private enterprises, as shown in Table 6.6. First, the rates of change of labor, fixed assets and managers have significant effects on output at the T-value significance level of 1%, but the impacts of the rates of change of technicians and structure on output growth are mixed. Concretely, for state owned enterprises, the growth rates for all variables other than technicians have significant effects on output growth at the 1% significance level. For collective enterprises, all growth rates, such as labor, fixed assets, managers, technicians and structure, have significant effects on output growth at the 1% significance level. For non-public enterprises, with the exception of a negative effect of the technician growth rate, the growth of the independent variables has significant effects on output growth. For private enterprises, the growth rates of labor, fixed assets and manager have positive effects on output growth at the 1% level; the growth rate of technician has no significant effect on output growth, but has a positive effect at the 5% level; however, change in structure has no significant effect on output growth at even the 5% level, meaning that changing it is not as urgent as the other factors.

Secondly, factors such as labor, fixed assets, managers, and structure, all have positive impact on output growth, which is in conformity with the prior theoretical analysis. Surprisingly, however, the growth of the number of technicians, who are seen as important human capital resources, is negatively related to output growth in such sectors as SOEs, non-public enterprises (including private enterprises) and private enterprises alone. In collective enterprises, although a positive effect of technicians is identified at the 1% significance level, the elasticity coefficient (0.005388) is very small. We can offer two possible explanations for this phenomenon. Firstly, in the transition process, even if technicians are widely recruited by firms, they are not necessarily placed in important positions and do not play an important role in the enterprises. The other reason may be that the abilities of technicians may not suit the demands of enterprises due to the backward educational system.

Thirdly, as it is already mentioned above, it is worth emphasizing that change in structure, meaning more privatization or a smaller public equity share, has a major negative impact on output growth (or a positive impact on profits) for all categories. This finding again supports our proposition in the previous chapter.

Finally, Table 6.6 shows that both R-squared and DW statistics are satisfactory. The intercepts, whether significant or not, seem too small. To better estimate the above regression equations, we delete those variables without significant effects, and re-estimate them. The estimation results are listed in Table 6.7.

In summary, all types of enterprises in the PRC should attach great importance to the privatization process when increasing capital and labor input. Firms should not only increase the numbers of technicians, but also use them efficiently. The educational sector should be strengthened to produce students more suited to the market demand. The progress of privatization may be beneficial for the rational use of human capital. The privatization process should be sped up in order to make economic growth sustainable.

Table 6.6. Estimations of Output Growth Equation (1)

Variable	State owned		Collective		Nonpublic		Private	
	β	T-value	β	T-value	β	T-value	β	T-value
C	-0.00296	-2.8915**	-9.93E-05	-3.327**	-0.00151	-3.6253**	0.002227	0.87476
DLNLABOR	0.694352	56.460**	0.764998	184.8**	0.621488	81.827**	0.874153	37.314**
DLNFIXEDASSETS	0.118737	20.037**	0.163145	41.348**	0.146688	28.218**	0.057504	3.6181**
DLNMANAGER	0.064254	13.406**	0.064612	18.749**	0.097315	27.263**	0.055951	3.8904**
DLNTECHNICIAN	-0.00155	-0.96339	0.005388	4.3771	-0.00053	-0.66945	-0.00981	-2.2746*
DLNSTRUCTURE	0.08155	5.4212**	0.018344	5.5873**	0.081049	10.284**	0.001343	0.079143
R-squared	0.978478		0.997057		0.968892		0.992077	
DW	1.99452		2.262046		1.899459		2.341422	

Note: “**” denotes the T-value is significant at the 1% level, and “*” denotes the T-value is significant at the 5% level.

Table 6.7. Estimations of Output Growth Equation (2)

Variable	State owned		Collective		Nonpublic		Private	
	β	T-value	β	T-value	Variable	β	T-value	β
C	-0.0122	-11.522	-9.9E-05	-3.3271				
DLNLABOR	0.6274	51.350	0.765	184.8	0.6057	102.82	0.8763	45.153
DLNFIXEDASSETS	0.1125	16.265	0.1631	41.348	0.1605	38.709	0.0578	3.6764
DLNMANAGER	0.1131	25.643	0.0646	18.749	0.0950	29.229	0.0565	4.0789
DLNTECHNICIAN			0.0054	4.3771			-0.01	-2.325
DLNSTRUCTURE	0.1711	12.411	0.0183	5.5873	0.0917	14.279		
R-squared	0.998738		0.997057		0.967061		0.991878	

DW	1.706	2.262046	1.745441	2.299986
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Note: all T-values are significant at the 1% or 5% level.

7. Concluding Remarks

There is one well-known phrase in Chinese, *shi shi qiu shi* (实事求是), which means, “seek truth from the facts.” It is an (non-ideological) approach to issues adopted by people in handling realistic problem. Mao Zedong originally put forward his idea, but it seems not having been properly realized at that time. Nevertheless, the idea itself continues to be relevant.

The authors of this paper believe that the *shi shi qiu shi* attitude should be carried out not only in the practice of reform, but also in academic research. In trying to follow this attitude, the authors make some assumptions based on questionnaire investigations of Chinese enterprises that to some extent deviate from the neo-classical school, and draw some propositions that seem to explain phenomena appearing in the development of the private sector in the PRC.

Looking at the growing presence of the private sector and the important role it is now playing, it is easy to predict a very bright future for the private sector. On the other hand, if we focus attention on the various constraints faced by the private sector, as seen in Chapter 4, we cannot but take a pessimistic view about its future. The authors take neither a fully optimistic or pessimistic views. However, we believe that as long as the PRC tries to take the *shi shi qiu shi* approach, the private sector is expected to develop further and to contribute more to the development of the PRC economy and eventually the world economy.

Appendix 1. Definition and Classification of Enterprises by Registered Status

The registration status of enterprises is classified into three categories: domestic-funded enterprises, enterprises with investment from Hong Kong, China, Macau and Taipei, China, and enterprises with foreign investment, following the registration status of enterprises by industrial and commercial administration agencies. Domestic-funded enterprises include state-owned enterprises, collective enterprises, cooperative enterprises, joint ownership enterprises, limited liability corporations, share-holding corporations, private enterprises and other enterprises. Included in the enterprises with investment from Hong Kong, China, Macau and Taipei, China and enterprises with foreign investment are joint-venture enterprises, cooperative enterprises, sole investment enterprises and share-holding corporations. For government agencies, institutions and social organizations that are not requested to register in industrial and commercial administration agencies are classified mainly by sources of funds and management form.

1. State-owned enterprises refer to non-corporation economic units where all assets are owned by the state and which have registered in accordance with the Regulation of the People's Republic of China on the Management of Registration of Corporate Enterprises. Excluded from the category are sole state-funded corporations that are limited liability corporations.
2. Collective-owned enterprises refer to economic units where the assets are owned collectively and which have registered in accordance with the Regulation of the People's Republic of China on the Management of Registration of Corporate Enterprises.
3. Cooperative enterprises refer to collective economic units where the capital comes mainly from employees in the form of shares, with a certain proportion of capital from the outside, where production is organized on the basis of independent operations, independent accounting for profits and losses, joint work, democratic management, and a distribution system that integrates remuneration according to work and dividends according to capital share.
4. Joint-ownership enterprises refer to economic units established by two or more corporate enterprises or corporate institutions of the same or different ownership, through joint investment on the basis of equality, voluntary participation and mutual benefits. They include state joint ownership enterprises, collective joint ownership enterprises, joint state-collective enterprises, and other joint ownership enterprises.
5. Limited liability corporations refer to economic units established with investment from 2-50 investors and registered in accordance with the Regulation of People's Republic of China on the Management of Registration of the Corporation, depending on its share of investment, and the corporation bearing liability to its debt to the maximum of its total assets. Limited liability corporations include exclusive state-funded limited liability corporations and other limited liability corporations.
6. Share-holding corporations refer to economic units registered in accordance with the Regulation of People's Republic of China on the Management of Registration of Corporations, with total registered capital divided into equal shares and raised by issuing stocks. Each investor bears limited liability to the corporation depending on shares held, and the corporation bears liability to its debt to the maximum of its total assets.

7. Private enterprises refer to profit-making economic units invested and established by natural persons, or controlled by natural persons using employed labor. Included in this category are private limited liability corporations, private share-holding corporations and private partnership enterprises and private-funded enterprises registered in accordance with the Corporation Law, Partnership Enterprises Law and other regulations on private enterprises.
8. Other domestic-funded enterprises refer to domestic-funded enterprises other than those mentioned above.
9. Cooperative Enterprises with Funds from Hong Kong, China, Macau and Taipei, China are established by investors from Hong Kong, China, Macau and Taipei, China with enterprises in the mainland of China in accordance with the Law of the People's Republic of China on Sino-foreign Cooperative Enterprises and other relevant laws, where the investment or provision of facilities, and the share of profits and risks is stipulated in the cooperative contract.
10. Enterprises with Sole (exclusive) Investment from Hong Kong, China, Macau and Taipei, China refer to enterprises established in the mainland of China with exclusive investment from investors from Hong Kong, China, Macau and Taipei, China in accordance with the Law of the People's Republic of China on Foreign-Funded Enterprises and other relevant laws.
11. Share-holding Corporations Ltd. with Investment from Hong Kong, China, Macau and Taipei, China refer to share-holding corporations established with the approval from the Ministry of Foreign Trade and Economic Relations in line with relevant state regulations, where the share of investment from Hong Kong, China, Macau or Taipei, China businesspeople exceeds 25% of the total registered capital of the corporation. If the share of investment from Hong Kong, China, Macau or Taipei, China is less than 25% of the total registered capital, the enterprise is classified as a domestic-funded share-holding corporation.
12. Joint-venture Enterprises with Foreign Investment refer to enterprises jointly established by foreign enterprises or foreigners with enterprises in the mainland of China in accordance with the Law of the People's Republic of China on Sino-foreign Joint Venture Enterprises and other relevant laws, where the share of investment, profits and risks is stipulated in the contract.
13. Cooperative Enterprises with Foreign Investment refer to enterprises jointly established by foreign enterprises or foreigners with enterprises in the mainland of China in accordance with the Law of the People's Republic of China on Sino-foreign Cooperative Enterprises and other relevant laws, where the investment or provision of facilities, and the share of profits and risks is stipulated in the cooperative contract.
14. Enterprises with Sole (exclusive) Foreign Investment refer to enterprises established in the mainland of China with exclusive investment from foreign investors in accordance with the Law of the People's Republic of China on Foreign-Funded Enterprises and other relevant laws.
15. Share-holding Corporations with Foreign Investment refer to share-holding corporations established with the approval of the Ministry of Foreign Trade and Economic Relations in line with relevant state regulations, where the share of investment of foreign investors exceeds 25% of the total registered capital of the corporation. If the share of foreign investment is less than 25% of the total registered capital, the enterprise is classified as domestic-funded share-holding corporation.

Appendix 2. Small- and Medium-Sized Enterprise (SME) Policy: The Japanese Experience

Although there are significant differences in political, economic and social structure between Japan and the PRC, some Japanese experiences on SME policy may be useful. In particular, Japan's situation during late 1950s and 1960s is somewhat similar to the PRC today on the following points. First, after the entry into the WTO, Japan began to liberalize its trade and capital transactions and registered high economic growth. Second, although Japan was already a market-oriented economy, the role of public sector and government intervention in the market was relatively large compared to other developed countries.

According to Japan's 1997 *White Paper on SMEs* [56], Japan's SME policy can be divided into the following four stages.

First stage (1945-1954) Reconstruction period after World War II

Second stage (1955-1972) High economic growth period

Third stage (1973-1984) Stable economic growth after first oil crisis

Fourth stage (1985-present) Transition period after the Plaza Accord

During the first stage, the SME Agency was established in the government administration and the government laid the foundation for an SME policy. This policy primarily focused on financial and organizational support and of counseling and information services for SMEs. In the area of finance, several specialized financial institutions and credit guarantee associations were established. In terms of organization, the SME Association Law was introduced in order to vitalize and improve the organizational structure of SMEs. In addition, support systems were set up to provide advice and guidance for SMEs.

During the second stage, the government took further measures in all three areas, i.e. finance, organization, and counseling and information. In the area of finance, preferential tax treatment for SMEs was introduced and financial support was given through local governments to update obsolete equipment of SMEs. The Credit Insurance Public Corporation was also established during this period to strengthen the credit guarantee system for SMEs. Various laws were also enacted to provide SMEs with organizational support. In accordance with the Law on SME Organizations, a number of industrial and commercial associations were set up. In the area of counseling and information, a law on guidance for SMEs was introduced, and based upon it, the guidance system for SMEs was strengthened. In addition, reflecting the high economic growth, sectoral measures to modernize the equipment and facilities of SMEs and enhance their technology were also introduced, in particular for machineries, textile and fabrics.

The third stage is characterized by support in the area of human resource training and technology enhancement. The milestone of this period was the enforcement of the Basic Law on SMEs in 1963. This law stipulates that the purpose of SME policy is first to address the economic and social disadvantages of SMEs, and second to encourage independent efforts by SMEs. Based on this law, sectoral policies for modernization and revitalization were introduced and implemented. The Basic Law also included provisions to provide SMEs with guidance on how to prepare for the trade and capital account liberalization after Japan's upgrade to an IMF

Article VIII country in 1964. Since the 1990s, the government has placed greater emphasis on supporting SMEs in launching new businesses or changing businesses, promoting R&D and streamlining and concentrating SME businesses. It seems that the government has come to realize the importance of enhancing the market competitiveness of SMEs rather than just protecting them.

Overall, Japan's *White Paper* concluded that past SME policy tended to restrict market competition and protect SME, but that it had moved toward a more market-oriented type policy. Human resource training, information services and support for SMEs entering new businesses or changing business all aim to support the ability of SMEs to play an important role in the market, so that the market economy as a whole can further develop. Basically we could identify a similar tendency in other developed countries.

Appendix 3. Private Sector Development: The Case of Taipei,China

Since Taipei,China experienced colonial rule during World War II, and the Japanese legacy remained and for some period after the War, its economy was primarily dominated by SOEs, which had once been Japanese companies. In the 1960s, the economic goal moved away from achieving economic stability or the reconstruction of the economy. The authorities began to aim to stimulate exports and pursue economic growth. From this perspective, the authorities placed increased emphasis on the role of private companies. On the other hand, many private companies, and in particular SMEs, faced serious difficulty in getting commercial bank loans, and the authorities created specialized financial institutions and built up a market infrastructure conducive to private companies.

In the 1970s, the importance of the private sector, and especially the role of SMEs, was widely recognized. These firms were expected to absorb redundant labor and also to further increase exports. However, the SME policy lagged. For instance, the SME Agency, which was responsible for the administration's SME policy, was not established until after 1981.

During the 1980s and 1990s, internationalization, deregulation, and further privatization were pursued, and a wide range of SME policies were introduced. In many cases the authorities learned from the Japanese and American experiences. It could be argued that formally they introduced many policies from the U.S., but informally they imported many policy measures from Japan.

Regarding the characteristics of the private sector in Taipei,China, the following points can be highlighted.

First, each company has relatively high autonomy, and there are no "keiretsu" among companies. Most private companies are small- and medium-sized, but are quite independent from big companies.

Second, the role of individuals is large, and decisions are normally made directly by the CEO. The organizational structure is simple and group decision-making is not common. In this sense, many private companies have flexible and quick decision-making, but the other side of the coin is that the performance of companies largely depends on the skills and capabilities of individuals. In Taipei,China, private entrepreneurs develop the market for the company or internationalize their own companies individually. A good entrepreneur is one who is able to bring various human and financial resources into the company. When he or she moves to another company, all the resources and skills also move to that new company. These characteristics are supported by the very efficient and flexible structure of the labor market. From the standpoint of communication and bargaining with management and workers, the following survey is very interesting.

The behavioral pattern of private companies is definitely profit maximization, as they have no option to pursue other goals. SMEs do have difficulty in accessing commercial bank loans, and unlike large companies, they do not have a wide range of financing channels. If they fail to register a profit for one year, they will not receive any money from commercial banks or other channels and may go bankrupt. In this sense, they only have short-term perspectives.

The current situation is that large companies use direct financing through the capital market, medium-sized companies use bank loans so long as they have adequate collateral, and small-

sized companies use various informal channels including the black market (for example, personal self-help networks called *biaohui* (標会)). Generally, the market environment surrounding SMEs is very competitive and new entry and exit is very frequent. According to experts in Taipei, China, the proportion of underground financing channels to the economy as a whole there is larger than that on the mainland, and that is one of the main reasons why the private sector has developed much faster than on the mainland.

For the past decade, the authorities have pursued the privatization of SOEs. They have encountered strong resistance from vested interest groups. However, they lack a firm and clear policy for privatization. Now the proportion of the private sector is about 95 % of total GDP and it is expected to increase further.

As stated above, it is difficult for SMEs to access commercial bank loans. Commercial banks normally require collateral and they have become more risk-conscious and cautious toward SMEs since the Asian financial crisis in 1977 (commercial banks have a saying, “来者不善、善者不来,” meaning that a person who comes to request loan is not a good customer, and a good customer does not come to request a loan). In particular, it is noted that private companies typically prepare three financial and accounting reports: one for the owners, one for stockholders, and the third for the tax authority. Accordingly, nobody believes the reports are reliable, leading to serious problems of transparency and governance of private companies.

Appendix 4. Case Study: A Private Company in Zhong Guan Cun Zone

This private company in Zhong Guan Cun Zone (中关村), where many high-tech private companies are located, is carrying out research work in pharmaceutical science and technology to develop high-tech pharmaceutical products for the treatment of diseases, health care and the improvement of the quality of life in general (modern and traditional Chinese medicine and health care). It was established by an overseas Chinese student several years ago. Presently, it has no relations with SOEs or foreign-invested enterprises.

It seems that the company has the widely recognized features of private enterprises in many respects. It seems to be a family-type, small individual business. Since the manager (CEO) and his relatives are major investors, the management and ownership are not necessarily separated and decisions are basically made by the individual rather than organization. The educational backgrounds of employees are higher than average, and they are relatively young. The company is involved in a high-tech market that is not dominated by large traditional SOEs. A significant role is played by people who studied and got expertise abroad.

The firm's major problem is financing, or more specifically accessing bank loans. Consequently, it has to rely on local government and national funds either directly or indirectly. More specifically, it has the following features.

It has more than 30 regular employees and about ten part-time workers. More than 85% hold a bachelor's degree or above. The average age of the employees is 32. After carrying out collaborative work for several years, the company is now a highly qualified, united and cooperative team, consisting of 13 senior researchers, some with PhDs. The scientific research work is mainly carried out by scholars who were educated overseas and then returned to the PRC. Through this research team, the company has established various connections with domestic and overseas universities and institutes.

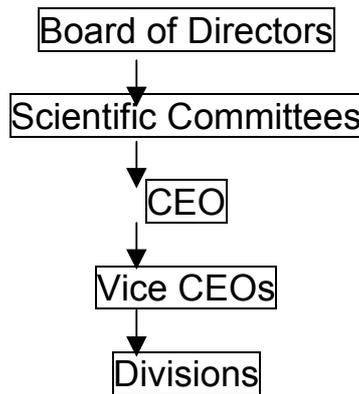
In a relatively a short of time period, the company has successfully achieved a series of research and development milestones, including the development of new drugs and health care products. Currently more than ten products in genetic engineering, traditional Chinese medicine and health care are in the R&D process, and patent applications for five have been filed in the PRC.

There is a board of directors, and the CEO reports to the board. The board includes two partner investors. One is the CEO and the other is a relative of his. There are also three executive offices: the Administration Office, Office of Human Resources and Office of Finance. In addition, there are several technology divisions. As far as the organizational structure is concerned, there does not seem to be much difference with private companies in Western countries.

Structural Chart

Board of Stockholders





The company does have a series of management regulations. However, in most cases the decisions are made by the CEO himself.

The company mainly targets the domestic market, making great efforts to become one of the largest enterprises engaged in biological products in the PRC. After gaining an advantageous position in the domestic market, it may attempt to enter the international market.

The firm's financial resources come mainly from individuals and the central government. The Beijing Municipal Government also supports the project. Currently, the company has received a 20 million RMB bank loan with the help of the local government, and started to establish a production base in Qingdao in Shandong Province.

Nevertheless the main difficulty faced by the company is access to loans from commercial banks. Its own resources are limited and insufficient to support the rapid development of the enterprise. The managers argue that the current financial system in the PRC is not designed for private SMEs, and feel they have no choice but to rely on the public sector in one way or another.

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