Government Policies and Private Enterprises Development: The Case of China (2003-2006)*

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Abstract

The relationship between government policy and economic development has been a long-standing topic in both academic research and policy debate. The government of a transitional economy is playing an even greater role in its economy. In the past three decades, the Chinese economy has been growing very rapidly, due to the rapid development of the private sector. The performance of private enterprises in China, however, is still highly affected government policies. In this paper, we examined the performance change of Chinese large-sized private enterprises during 2003-2006, and tested possible determinants of this change. We conclude that the Chinese government's discriminating policies against private enterprises are the main cause of the private sector's downturn.

Key Words

Macro-control Policy, Large-sized Private Enterprises, Financing Difficulty

JEL Codes

D21, E58, E61, H11

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I. Introduction

Chinese private enterprises have been developing very rapidly since the late 1970s, when China initiated reform and opening-up policy, and especially after 1992, when Deng Xiaoping toured southern China and China determined to implement "socialist market economy." According to the 2004 National Economic Survey of China, the private sector has contributed to more than 50% in the whole industrial sector in terms of production value, sales revenue, and total profits. By the end of 2007, the private economy has accounted for a half of the national economy, and absorbed three fourths of the total urban employment. ¹All these figures, however, were not far from zero in late 1970s.

Compared with the rapid growth in the 1990s, the growth of Chinese private enterprises has slowed down since 2003. From 1990 to 2002, sales revenue of Chinese private enterprises grew at an annual average rate of nearly 60 percent; while from 2002 to 2005, the average growth rate was only 28 percent. ² The growth of value-added of Chinese large-sized private enterprises was also slowing down since 2003. The year-on-year growth was 65 percent in 2003, but was only 42 percent in 2005. ³

What we care about in this paper is not the change of magnitude of Chinese large-sized private firms in terms of assets, sales revenue, value-added, total profits, and exports, but the change of performance in terms of profitability, because it is profitability that shows more accurately an enterprise's comprehensive competitiveness and business environment in which it is operating. According to the annual surveys of All China Federation for Industry and Commerce (ACFIC), the profit margin of Chinese large-sized private enterprises was declining in the period

¹ See China Business Times, September 11, 2008.

² See ACFIC (2006).

³ Ibid

of 2003 to 2006.

A natural question to ask is: which factors had contributed to the declining performance of Chinese large-sized private enterprises? Was it due to market demand decreasing, rising prices of raw materials, unfavorable macroeconomic policies, or any other reasons? This question is best answered by empirical studies based on firm-level data. Fortunately, annual surveys of ACFIC provide us with first-hand data on Chinese large-sized private enterprises for four consecutive years. With the first-hand firm-level data at hand, we are able to measure the change of performance of Chinese large-sized private firms and test possible determinants that might have resulted in the change.

Chinese private enterprises are mainly operating in "downstream" labor-intensive manufacturing industries and commercial sector, such as textile and chemical fiber manufacturing, ferrous and non-ferrous metal smelting, rolling and processing, wholesale and retailing, electrical and mechanical equipment and cable manufacturing, chemical materials and chemical products manufacturing (see Table 1⁴). Very few private enterprises operate in "upstream" resource and capital-intensive industries, like coal, gas, crude oil, old processing, electricity, iron and steel, telecommunications, mining, etc., in which state-owned enterprises (SOEs) dominate or even monopolize. SOEs also dominate in financial and insurance industries, and tobacco. We call this situation a "division of industry" between private and state-owned enterprises, and this is a typical characteristic of current Chinese industry distribution. But we need to emphasize that this situation is not an endogenous result of fair market competition, but because of an exogenous barrier set by the government.

⁴ The industry distribution of Chinese large-sized private enterprises changed very little over the 2004-2006 period, so one-year data can provide enough information.

Accompanying the downturn of Chinese large-sized private enterprises' performance, we also noticed that, the Chinese central government launched a round of so-called "macro-control" in 2003 and 2004. ⁵ In order to cool down the so-called "overheating investment," under the macro-control policies, commercial banks, which are mainly state-owned or at least state-controlled, were ordered to cut loans granted to private firms, especially large-sized private firms. Many banks even reclaimed loans already granted ahead of schedule. Moreover, many projects invested by large-sized private enterprises in iron and steel, aluminum and cement were halted or cancelled. Following the macro-control policy, the investment of private firms was restrained, while the monopoly power of SOEs was strengthened.

The macro-control policy, undoubtedly, reduced the development speed of private firms, and hampered their performance. Therefore, based on observations and logical reasoning, we come up with the following hypothesis: credit reduction (loan cut) and investment restriction under the macro-control policy are major reasons for the worsening performance of Chinese large-sized private enterprises after 2003. But to what degree the large-sized private firms had been adversely affected by the macro-control policy, and were there any other factors that had contributed to the declining performance of Chinese large-sized private firms since 2003?

When reviewing related literatures, we found many prior studies had focused on the growth and development of Chinese private enterprises. Zhang (2006) studied theoretically the relationship between core competence of private firms and their growth, pointing out that lack of private property rights protection and inefficient judicial system were the main obstacles to Chinese private enterprises' growing large. Chen and Cao (2007) did case studies on several

⁵ In China, the macro-control policy is a typical government intervention into the economy, with an aim of reducing the severity of economic fluctuations.

large-sized private enterprises in China, and discovered that institutional environment determined the development of Chinese private enterprises during the past two decades. They also found that almost all Chinese private enterprises had faced very similar problems at each stage of their development, which means they had faced similar "institutional environment." The Asian Development Bank (2002), by using ACFIC's survey data, identified five major factors impeding Chinese private enterprise growth, namely, a) hard access to finance; b) lack of managerial and technical talents; c) lack of information; d) nontransparent and/or inconsistent implementation of policies and regulations; and e) "inappropriate" (unfair) competition policies.

ACFIC has an annual report on the development of Chinese "large-sized" private enterprises and "Top 500" private enterprises, ⁶ based on its survey data. These reports, however, are generally descriptive statistics, thus lack a systematic analysis and explanation, thus fail to find out the change of performance of the large firms and figure out the underlying determinants for the change. Many other empirical studies on private firms generally just compared the performance of firms with different ownerships based on sampled data, such as Liu (2005), but did not focus on private firms per se. Up to now, studies focusing on Chinese large-sized private enterprises are still rare, and this is because of, we believe, the availability of raw data.

The rest of the paper is organized as follows. In Section II, we introduce the source of data and methodology we used in this paper. In Section III, we measure the performance of Chinese large-sized private firms in terms of profit margin from 2003 to 2006. In Section IV, we construct an econometric model and do regressions, then demonstrate and explain the regression result. Section V concludes the paper.

⁶ The meaning of "large-sized" will be explained in Section II, and "Top 500" is the first 500 firms in the "large-sized" category ranked by sales revenue volume.

Table 1 Industry Distribution of Chinese Large-sized Private Enterprises (2006)

Industry	Firm #	Percentage
Textile and chemical fiber manufacturing	339	10.62%
Ferrous and non-ferrous metal smelting, rolling and processing	294	9.21%
Wholesale and retailing	256	8.02%
Electrical and mechanical equipment and cable manufacturing	246	7.71%
Chemical materials and chemical products manufacturing	222	6.96%
Building industry	211	6.61%
General and special purpose equipment manufacturing	176	5.52%
Food processing, food and beverage manufacturing	148	4.64%
Metal products manufacturing	146	4.58%
Clothing, shoes, hats, and leather manufacturing	142	4.45%
Real estate industry	127	3.98%
Comprehensive (including investment) ⁷	123	3.85%
Nonmetallic mineral products manufacturing ⁸	98	3.07%
Transportation equipment manufacturing	97	3.04%
Pharmaceutical industry	83	2.60%
Petroleum processing and coking	60	1.88%
Communications equipment, computers and other electronic equipment	57	1.79%
Rubber products, plastic products manufacturing	55	1.72%
Papermaking and paper products, printing industry and related ⁹	44	1.38%
Woodworking and furniture manufacturing ¹⁰	41	1.28%
Mining industry	41	1.28%
Agriculture, forestation, herding, and fishing industry	34	1.07%
Others	28	0.88%
Arts and crafts products manufacturing	25	0.78%
Transportation, warehousing, and postal services	23	0.72%
Production and supply of electricity, heating power, gas and water	18	0.56%
Instrument and meter manufacturing	17	0.53%
Information transmission, computer services and software industry	12	0.38%
Lodging and catering industry	10	0.31%
Leasing and renting, and commercial services	10	0.31%
Resident services and other services	2	0.06%
Tobacco products manufacturing	2	0.06%
Health, social security and social services	1	0.03%
Education	1	0.03%
Culture, sports and entertainment	1	0.03%
Finance and insurance	1	0.03%
Total	3191	100.00%

Firms belonging to "comprehensive industry" do not have an obvious main profession.
 Nonmetallic mineral products include cement, glass, crockery, and fireproof materials, etc.
 It also includes cultural, educational and sports products, and office supplies manufacturing.
 It also includes timber, bamboo, vine, palm, and grass products manufacturing.

Source: ACFIC dataset. Note: This table includes all industries in which Chinese large-sized private enterprises were operating in 2006.

II. Data and Methodology

The data used in this paper come from the annual surveys of ACFIC. ACFIC and its local branches conduct surveys on Chinese large-sized private enterprises annually. ¹¹ ACFIC first designs questionnaires, then issues the questionnaires to targeted firms. The respondent firms answer the questions listed in the questionnaires. Of course, the firms have rights to deny answering the questions, that is, the data collecting process is on a voluntary basis.

According to the statistical standards of ACFIC, only those private firms with annual sales revenue exceeding or equal to RMB120 million in 2003, and RMB200 million from 2004 to 2006 are defined as "large-sized" and thus are included in the survey. In 2003, there were 2268 private firms satisfying the criterion. In 2004, the number of firms meeting its criterion was 2119; and it was 2688 and 3191 in 2005 and 2006 respectively. These large-sized private enterprises are the most competitive private firms in China. The data contains information on Chinese large-sized private firms' sales revenue, assets, profits, taxes and employment, and also on conditions of their financing and investment, marketing and management, and major problems (difficulties) they encountered during their operation and development.

We should point out that the dataset could be biased, since the surveys were not conducted on a random-sampling or mandatory basis, but on willingness of the respondents. That is to say, firms may choose not to answer the questionnaires. By our conjecture, firms with better performance are more likely to answer the questions while those with poorer performance may decline not to do so. We believe that this problem should not be serious since the surveys cover almost all large-sized

¹¹ It is generally believed that ACFIC represents the interests of all private enterprises in China.

private firms in China, while larger firms generally have better performance than medium and smaller ones. The firms in the dataset, to a great extent, can represent the population of Chinese large-sized private enterprises. This is our premise for the following work.

Another limitation of the dataset is that it is not panel data, but cross-sectional data. That is to say, not only the numbers of firms differ in different years (as mentioned above), but that the firms covered in each year's survey may also differ, although there are some firms that appear in all years of surveys. This property of the data is determined by the survey method of ACFIC. The aim of ACFIC is not to track some fixed firms' performance, but to examine the overall conditions of the large-sized firms. Its only criterion to choose firms is the firm size in terms of sales revenue. Therefore, we cannot do dynamic analysis but can only do comparative static analysis. Nonetheless, as long as the surveyed firms can represent the population of Chinese large-sized private firms, the cross-sectional data in several consecutive years can do a good job.

In order to examine the change of performance of Chinese large-sized private firms, we need to define an indicator to represent firm performance. We do not intend to use magnitude (size) variables like sales revenue, assets, total profits etc. to represent firm's performance. Because, on the one hand, firms in the dataset were chosen by their sizes, if we use size to represent performance, then the performance would be over-estimated, since the firms in each year's survey were different, and those firms with slower magnitude growth might exit the list. On the other hand, firm size can represent performance to a certain degree, but size is more easily affected by market demand, which cannot accurately reflect the underlying efficiency and profitability of a firm. While profitability, which is defined by profit margin, can deflate the influence of firm size.

¹² Based on these considerations, we use profitability to represent firm performance. We use profit margin, which is defined as net profit (after-tax profit) over sales revenue to represent a firm's profitability.

III. Measuring Performance of Chinese Large-sized Private Enterprises

Table 2 Change of profit margin of Chinese large-sized private enterprises: 2003-2006

Industry		Industry profit margin			
		2004	2005	2006	
Mining industry	13.65%	9.19%	15.97%	10.96%	
Production and supply of electricity, heating power, gas and water	7.81%	6.83%	8.60%	6.92%	
Electrical and mechanical equipment and cable manufacturing	5.46%	6.02%	4.86%	5.15%	
Real estate industry	6.68%	8.67%	9.28%	8.18%	
Textile and chemical fiber manufacturing	4.25%	3.71%	3.66%	3.77%	
Nonmetallic mineral products manufacturing	6.86%	11.24%	4.64%	5.88%	
Clothing, shoes, hats, and leather manufacturing	4.25%	6.01%	5.81%	5.39%	
Arts and crafts products manufacturing	5.92%	4.30%	4.90%	3.96%	
Ferrous and non-ferrous metal smelting, rolling and processing	6.71%	5.20%	4.01%	4.52%	
Chemical materials and chemical products manufacturing	5.00%	4.87%	5.99%	5.45%	
Building industry	3.01%	3.94%	2.79%	0.58%	
Transportation, warehousing, and postal services	6.16%	3.14%	2.84%	1.99%	
Transportation equipment manufacturing	3.21%	3.49%	3.67%	4.54%	
Metal products manufacturing		4.76%	3.51%	4.36%	
Woodworking and furniture manufacturing	2.86%	4.61%	5.12%	5.25%	
Agriculture, forestation, herding, and fishing industry	4.88%	5.45%	4.63%	3.73%	
Wholesale and retailing	2.09%	1.51%	1.47%	1.58%	
Petroleum processing and coking	5.01%	7.81%	3.89%	6.19%	
Food processing, food and beverage manufacturing		4.79%	4.79%	1.90%	
Communications equipment, computers and other electronics	5.16%	3.98%	1.36%	1.44%	
General and special purpose equipment manufacturing	6.26%	5.42%	5.05%	6.37%	
Rubber products, plastic products manufacturing	6.36%	5.17%	5.26%	6.80%	
Information transmission, computer services software industry	3.42%	4.43%	7.15%	6.27%	
Pharmaceutical industry	8.45%	6.66%	7.58%	5.92%	
Instrument and meter manufacturing	6.89%	6.72%	4.43%	4.42%	
Papermaking and paper products, printing industry and related	7.08%	5.36%	6.45%	4.44%	
Lodging and catering industry	9.87%	10.55%	13.28%	8.45%	
Comprehensive (including investment)	5.46%	5.10%	5.47%	5.14%	
Leasing and renting, and commercial services	2.09%	0.95%	4.97%	3.01%	
Average	5.12%	4.83%	4.22%	4.45%	

¹² That is to say, bigger firms do not necessarily have better profitability.

Source: Calculated from ACFIC database.

Table 2 shows that the average profit margin of Chinese large-sized private enterprises was around 4-5 percent in the period of 2003-2006. Profit margin had been declining since 2003, and the trend was apparent. The profit margin also improved a little bit in 2006, but it was still lower than that of 2003 and 2004. The profit margin dropped significantly in industries like instrument and meter manufacturing, pharmaceutical industry, food processing and chemical products manufacturing, transportation, warehousing and postal services, etc.

IV. The Model, Analysis and Explanation

We use a multiple linear regression model to test the possible factors that might have resulted in the decline of performance of Chinese large-sized private firms. The model is used to test factors that might have brought about the change of profit margin of a firm, in which profit margin is treated as the dependent variable. The model is constructed as follows:

$$\frac{\pi}{Y} = c + \sum_{i} d_i X_i \tag{1}$$

where π is net profit of a firm, Y is sales revenue, and X_i measures all other variables that may affect the profit margin of a firm and industry control variables. X_i in (1) are defined and listed as follows:

- (a) HR Human Resource: proportion of employees with at least a bachelor's degree;
- (b) Financing: for firms who answered that financing difficulty is one of their major problems, let the variable be 1, otherwise, 0;
- (c) Sources of capital for investment:
 - Source 1: for firms whose capital for investment comes from self-accumulation, let this variable be 1, otherwise 0

- Source 2: for firms whose capital for investment comes from private-borrowing, let this variable be 1, otherwise 0;
- Source 3: for firms whose capital for investment comes from bank loans, let this variable be 1, otherwise 0; and
- Source 4: for firms whose capital for investment comes from capital markets (direct financing), let this variable be 1, otherwise, 0.

By constructing the above regression model, we tested possible factors that might have affected the performance of Chinese large-sized private firms. According to the regression result, financing difficulty stands out as one of the most important factors that have resulted in the decline of profit margin of Chinese large-sized private firms since 2003. The result basically confirmed our hypothesis. For specific regression results, please see Table 3. 14

Table3 Factors affecting profit margin of Chinese large-sized private enterprises (2004-2006)

	<i>U</i> 1				1 \	
Dependent	2004		2005		2006	
variable: profit margin	Coefficient	T value	Coefficient	T value	Coefficient	T value
Intercept	5.117***	8.64	6.027***	13.74	6.016***	15.89
HY1	-0.915	-1.32	-0.975**	-2.12	-2.147***	-4.83
HY2	0.831	0.94	0.305	0.47	-0.441	-0.76
HY3	0.925	0.61	2.349**	2.00	-1.156	-1.21
HY4	-0.335	-0.27	1.759	1.90	-0.968	-1.06
HY5	-0.515	-0.68	-1.223**	-2.41	-0.917	-1.96
HY6	-0.649	-0.73	-1.038	-1.60	-2.075***	-3.67
HY7	2.95	1.52	-0.082	-0.08	0.087	0.11
HY8	0.360	0.43	1.079*	1.99	-0.476	-0.96
HY9	2.983**	2.72	3.813***	5.11	-0.412	-0.57
HY10	2.307*	1.83	-0.780	-0.92	-0.737	-0.88
HY11	0.520	0.62	0.612	1.07	1.279**	2.41
HY12	-1.682	-1.55	-0.569	-0.81	-1.047	-1.56
HY13	0.314	0.39	0.656	1.24	-0.744	-1.55

Since we treat year 2003 as a benchmark, we do not regress the model for 2003.
 We did not find heteroskedasticity and serious multicollinearity problems in this model.

HY14	6.736**	2.51	1.297	0.92	0.580	0.40
HY15	-0.816	-0.53	0.569	0.54	-2.729**	-2.30
HY16	4.762**	2.64	12.571***	11.77	5.713***	5.91
HY17	3.740	1.50	3.579**	2.21	-0.874	-0.60
HY18	-1.004	-0.12	-1.960***	-3.71	-0.044	-0.28
HY19	-1.276	-0.51	-0.565	-0.33	-2.292	-1.90
HY20	-1.885	-0.75	1.065	0.65	-1.764	-0.84
HY21	-4.044***	-5.12	-3.646***	-6.68	-4.837***	-9.56
HY22	2.226	1.42	1.233	1.03	-1.883*	-1.85
HY23	5.010*	1.87	9.658***	4.07	1.914	0.98
HY24	3.923***	4.27	4.066***	6.30	2.178***	3.32
HY25	1.688*	1.65	0.959	1.29	-0.559	-0.90
HR	0.023**	2.65	0.016***	2.60	0.010*	1.75
Financing	-0.506	-1.58	-0.830***	-3.52	-0.829***	-3.76
Source 1	_	_	0.464*	1.85	0.186	0.81
Source 2	_	_	-0.101	-0.15	-1.550**	-1.96
Source 3	_	_	-0.199	-0.84	-0.165	-0.74
Source 4	_	_	1.108**	2.61	1.766***	5.55
Adj. R-sq.	0.0737		0.163		0.096	
F value	5.76		14.55		10.30	
Observations	167	7	222	8	279	01

NOTE: The benchmark industry is "food processing, and food and beverage manufacturing," for other industries, HY1: Textile and chemical fiber manufacturing; HY2: Clothing, shoes, hats and leather manufacturing; HY3: Woodworking, wood, bamboo, vine, palm fiber, and grass processing, and furniture manufacturing; HY4: Paper making and paper products, printing industry and related; HY5: Ferrous and non-ferrous metal smelting, rolling and processing; HY6: Metal products manufacturing; HY7: Petroleum processing and coking; HY8: Chemical materials and chemical products manufacturing; HY9: Pharmaceutical industry; HY10: Rubber products, plastic products manufacturing; HY11: General and special purpose equipment manufacturing; HY12: Transportation equipment manufacturing; HY13: Electrical and mechanical equipment and cable manufacturing; HY14: Instrument and meter manufacturing; HY15: Arts and crafts products manufacturing; HY16: Mining industry; HY17: Production and supply of electricity, heating power, gas and water; HY18: Building industry; HY19: Transportation, warehousing, and postal services; HY20: Information transmission, computer services and software industry; HY21: Wholesale and retailing industry; HY22: Agriculture, forestation, herding, and fishing industry; HY23: Lodging and catering industry; HY24: Real estate industry; and HY25: Comprehensive, including investment.

Financing difficulty has been a common problem for Chinese private enterprises, especially small and medium-sized enterprises (SMEs). Before the commercialization reform of Chinese banks, almost all bank loans were granted to SOEs, and banks were considered as a second Ministry of Finance (MOF). Under that regime, private firms could hardly get loans from banks.

After the country initiated financial system reform with a concentration of banking commercialization, banks' "discrimination against" private firms began to change. Even so, it is still hard for SMEs, which are mainly private firms, to get loans from banks, since the Chinese banking system is still dominated by large-sized state banks and medium-sized stockholding banks. Due to the apparent economies of scale of banking services, the large and medium-sized commercial banks are reluctant to grant loans to SMEs. And due to the severe shortage of small banks in China, SMEs can hardly get bank loans. And even if they get loans, they face harsher terms and conditions.

Comparatively speaking, this condition is much better for large-sized private firms, because large-sized enterprises generally have a longer history, a better performance and reputation, a bigger asset size and other collaterals. So large private firms can more easily get bank loans than SMEs. In other words, large-sized private firms rely more on bank loans than SMEs. So the 2003-2004 macro-control policies with a concentration in raising the reserve requirement and cutting bank credit, undoubtedly, had worsened to a great extent the financing conditions for large-sized private enterprises. Therefore, under the macro-control policy, even large-sized private firms faced serious financing difficulty and liquidity constraint.

The variable of human resource, which is measured by the proportion of employees with a bachelor's degree or above, had a statistically significant positive effect on profit margin, and the effect was very stable in three consecutive years. This means that human resource is of critical importance to the development of Chinese large-sized private firms. The converse logic also holds: lack of human resource must be detrimental to firm's further development. According to the

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¹⁵ The loan interest rates for SMEs are generally 20 to 40 percent higher than for large firms. See *China Business Times*, 11 September 2008.

annual surveys of ACFIC, lack of human resources was universally considered as one of the top three biggest headaches of Chinese large-sized private enterprises.

Capital for investment of Chinese large-sized private enterprises mainly comes from self-accumulation and bank loans, only a small fraction of them relies on private borrowing and capital market financing. ¹⁶ This is because private borrowing is limited in terms of capital size and subject to high risk. And firms choose to be listed on the stock market to collect capital must accept the stringent regulations and thus of course high cost, even many of them fail to meet the requirements of capita market financing.

Self-accumulation had a statistically significant positive effect on profit margin in 2005, but not significant in 2006. This implies that private firms' reliance on self-accumulation was greater in 2005 than in 2006. Bank loans did not show any significant effect on profit margin. Capital market direct financing showed a statistically significant effect on profit margin.

The above regression results showed that financing difficulty was one of the most critical determinants leading to the decline of performance of Chinese large-sized private firms since 2003. Since more than 50 percent of the large firm relied on bank loans as one of their major capital sources for investment, the macro-control policy made banks contract credit and cut loans, which made it much harder for firms to get loans. Based on the results, we conclude that the credit reduction of banks under macro-control was one of the major determinants for the declining performance of Chinese large-sized private enterprises.

Industries were used as control variables in the regression model, and they were not our focus

¹⁶ Take year 2006 as an example, 64 percent of the surveyed firms replied that their capital for investment came from self-accumulation, 55 percent said they relied on bank loans, 12 percent of them relied on capital market direct financing, while only 2 percent of them chose private borrowing. Note: firms could choose two or more sources for their capital, so the sum of percentages exceeds 100 percent.

in this paper. We could, however, take a quick look at the different performance of different industries in the time period. Compared with the benchmark industry – food processing, food and beverage manufacturing industry, mining and real estate industry had superior profitability, while textile and chemical fiber manufacturing, and wholesale and retailing industry had poor profitability. We need to point out that the number of large-sized private firms in mining and real estate is small, while in textile, chemical fiber and commerce is large.

At this point we need to explain a little bit the background of the macro-control policy. In 2003, the Chinese government believed that the economy was "over-heated," and the fixed asset investment was growing too fast, and inflation was around the corner. In order to reduce the pressure of inflation and restrain the speed of fixed asset investment, the Chinese government launched the macro-control policy to cool down the economy. Major measures taken under the macro-control were to cut bank loans to firms, especially private firms, and reclaim ahead of schedule loans already granted. The People's Bank of China (PBOC), China's central bank, which is under the central government, raised reserve requirement by 1.5 percentage points in August 2003 and April 2004 respectively.

It is beyond doubt that the sudden credit cut deteriorated the financing conditions of Chinese large-sized private firms, since large firms usually have a huge demand for capital and bank loans are their major source of capital. Commercial banks have to follow orders of the central bank, and the central bank has to follow orders of the central government. So under the macro-control policy, commercial banks had to cut loans and reduce credit, which led to a rupture of cash chains of many large-sized private firms. In 2004 and 2005, many large-sized private enterprises went bankruptcy due to the rupture of cash chain. Those survived witnessed a decrease of profits.

Moreover, under the macro-control policy, private enterprises' investment projects in high energy-consuming industries like iron and steel, cement, aluminum and automobile were restrained, and many undergoing projects in these industries were even halted. During the macro-control period, many small coalmines and power-generating plants were closed down. That is to say, the macro control was not only an intervention at the "macro" level, but also at an "intermediate" industrial level. Because the macro-control was a sudden administrative intervention, many large-sized private enterprises with stake in these industries incurred huge loss. All these factors brought about the decline of performance of the large private firms.

Besides direct macro-control influences, lack of human resources and soaring price of raw materials were other two factors that had resulted in the decline of firm performance. Limited by data, we cannot conduct direct test for the variable of human resources shortage, nor can we test the effect of soaring material prices. But according to the surveys of ACFIC, these two factors also stood out as determinants of firm performance decline, see Table 4. And logically, we gave the following explanations based on our observations and available facts.

Table 4 Major difficulties faced by Chinese large-sized private enterprises, 2003-2006

No.	2003	2004	2005	2006
No. 1	Lack of human	Financing difficulty	Rising price of raw	Rising price of raw
	resource (24.4%)	(38.6%)	materials (41.3%)	materials (45.8%)
Financing difficulty		Lack of human	Financing difficulty	Lack of human
No. 2	(23.2%)	resource (30.3%)	(36.0%)	resource (41.0%)
No. 3	Taxes and fees	Taxes and fees	Lack of human	Financing difficulty
NO. 3	(18.4%)	(25.8%)	resource (30.9%)	(36.2%)
No. 4	Market expansion	Land use	Taxes and fees	Taxes and fees
No. 4	(14.4%)	(23.1%)	(24.5%)	(30.5%)
No. 5	Land policy	Technical innovation	Market expansion	Market expansion
	(14.4%)	(19.4%)	(17.9%)	(20.6%)

Source: ACFIC database.

Why did the price of raw materials rising so dramatically and became the No. 1 headache of

private firms in 2005 and 2006? It was mainly due to the so-called "industry division" between SOEs and private firm that we mentioned earlier in this paper. As we all know, Chinese SOEs experienced massive and rapid privatization in late 1990s. By 2002, SOEs almost disappeared from competitive sectors, and concentrated in the "upstream" resource and capital-intensive industries like coal, oil, gas, iron and steel, electricity, and telecommunications etc., ¹⁷ while private firms "occupied" the "downstream" labor-intensive industries.

We need to emphasize again that this kind of "division of labor" between state and private enterprises is not the endogenous result of fair market competition, but exogenous intervention of the government. SOEs are protected by the state, and private firms are not allowed to enter the industries in which SOEs are operating. ¹⁸ History has shown that once private and state firms are operating in the same industry and competing on a level playing field, SOEs tend to die. Therefore in order to protect SOEs, the government must set barriers to prohibit private firms' entry. With SOEs at hand, the government has more discretionary power over the entire economy.

This kind of "division of industry" between state and private firms implies that the output of SOEs is the input of private firms. The rising price of "upstream" products implies the rising cost of "downstream" firms. Due to the government protection, the "upstream" SOEs enjoy fewer numbers, stronger monopoly power, and richer profits; the "downstream" private enterprises face

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Data shows that by 2008, 82.8 percent of the assets of central-government-owned enterprises lie in oil and petroleum processing, electricity, national defense, telecommunications, transport, metallurgy, mining, and machinery. They almost monopolize the production of crude oil, natural gas and ethylene, and monopolize the provision of basic telecom services and value-added services. Central-government-owned firms produce 55 percent of the whole country's electricity, and provide 82 percent of the whole country's civil aviation freight turnover, 89 percent of the water cargo turnover. They produce 48 percent of the whole country's cars, 60 percent of the whole country's high value-added steel, 70 percent of hydroelectric equipment, and 75 percent of thermal power equipment. See Li, Rongrong (2008).

¹⁸ For example, private enterprises, by law, are allowed to operate in the retailing of petroleum (gas stations), but the supply of petroleum to gas stations must be SOEs, which makes it very difficult for private firms to compete with SOEs on a level playing field. China's two state-owned petroleum giants, PetroChina and Sinopec, in order to strengthen their monopoly power, reduced and even stopped supplying product oil to private gas stations. Data show that by the end of July 2008, one third of all China's 45,000 private gas stations had been closed down due to lack of product oil. See *China Business Times*, 31 July 2008.

much more fierce market competition and much thinner profits. Since 2003, the monopoly power of SOEs has been significantly strengthened, which can be illustrated by the soaring profits of SOEs. In 1998, the total profit of SOEs in China was RMB52.5 billion. In 2004, total profit of all industrial SOEs reached RMB531.1 billion, of which central government owned firms realized a total profit of RMB478.5 billion, 60 percent higher than that of 2003. In 2006, the total profit of SOEs reached RMB1219.3 billion, and after-tax profit was RMB625.2 billion.

By relying on their huge capital endowment and government protection, SOEs in the "upstream" industries has continued to expand their spheres, especially in the areas of coal, oil and iron and steel. They had merged and acquired many private firms in these industries, and thus further increased their monopoly power. ²¹ By principles of economics, the seller will charge a higher price and supply a less quantity if its monopoly power increases. After rapid development in the 1990s, private firms in the "downstream" industries create a huge demand for the resources and energies provided by the "upstream" SOEs. The increasing monopoly power of SOEs, together with the rising demand of private firms, makes private firms have to face the reality of a soaring price of raw materials and energy.

We know that the rising monopoly power of SOEs is not the only reason for soaring price of raw materials and energy faced by private firms. There are other reasons. For example, the international oil price increased significantly during the period of 2003-2006. Under the

¹⁹ See Yu, Xin'an(2005).

²⁰ Data source: China News Network, http://finance.sina.com.cn/g/20070914/18213980500.shtml.

²¹ For example, in 1999, the State Council (Chinese central government) issued *Opinions on Removing and Reorganizing Small Oil Refinery and Standardizing the Distribution Order of Crude Oil and Product Oil* (also called Document No. 38), which was drafted by the former State Economic and Trade Commission (SETC). Under this Document, product oil produced by all kinds of refineries must be sold to the wholesale enterprises of PetroChina and Sinopec, others enterprises are not allowed to do wholesale business, and refineries are not allowed to sell their product oil to other entities. Many local governments even removed the business licenses of many private oil firms, and many of the private oil firms were merged and acquired by PetroChina and Sinopec. So PetroChina and Sinopec monopolize the distribution and retailing of product oil. See *China Business Times*, 31 July 2008.

macro-control policy, land price also rose, and a multitude of small coalmines and thermal power stations were closed down, which made energy price rise. Moreover, one disaster after another, with the development of the Chinese economy, labor costs also rise, and most private firms are operating in labor-intensive industries. All these factors increased the cost of private firms and deteriorated their performance since 2003.

Why were Chinese large-sized private firms so constrained by human resources during the survey years? In the entire 1990s, accompanying the privatization of SOEs in competitive industries, a large number of technicians, engineers and management talents were released to private firms from SOEs, this process actually happened even before the privatization. At the beginning of the economic reform, the salary was much higher in private firms, which was determined by market, than that of SOEs, which was set by the government. The sharp salary difference between private and state firms directed talents from SOEs to the private sector (including foreign-invested enterprises - FIEs). This talent flow provided necessary human resources for the development of private firms in China.

This process of talent flow almost stopped by the beginning of the 21st century. By then, almost all small and medium-sized SOEs had been privatized, and SOEs had almost exited the competitive sector and concentrated in the monopolized sector. Employees in SOEs are now enjoying a much higher salary and benefits than that of private firms. Moreover, Chinese private firms are generally family-owned, which implies that their governance structure and corporate culture are not very mature and standardized, plus the fact that many private firms are located in smaller cities, which makes private firms less attractive for high-caliber talents than SOEs, FIEs, and of course, government agencies. That is why Chinese large-sized private firms are facing with

a shortage of human resources.

V. Concluding Remarks

In this paper, we examined the performance change of Chinese large-sized private firms in the period of 2003-2006, based on surveyed data of ACFIC. Data showed that the profitability of Chinese large-sized private firms declined since 2003. The performance in 2006 improved modestly but was still worse than 2003 and 2004.

Our regression results showed that financing difficulty, resulting from macro-control policy of the Chinese government in 2003 and 2004, was a major factor that had lead to the decline of performance of Chinese large-sized private firms. Credit cut of commercial banks ordered by the central government made it much harder for large private firms to get bank loans; investment restrictions and prohibitions in certain areas reduced the profitability of private firms. Moreover, lack of human resource and soaring price of raw materials are also critical factors contributing to the deterioration of performance of Chinese large-sized private firms.

Our study shows that government policies have a direct and key impact on the development of Chinese large-sized private firms. What private firms need, however, is not preferential policies for them, but a level playing field for competition. Due to the existence of SOEs, the government cannot treat everybody equally in macro-control and industrial interventions, and private enterprises are generally discriminated against. That SOEs are less efficient than their private counterparts in every industry has been indisputable. The monopoly of SOEs in the "upstream" sectors of the national economy only hinders the further development of private enterprises in particular, but also has a far-reaching adverse effect on the healthy development of the Chinese economy in general.

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