

# **What Is Special about Enterprise Performance in North-East People's Republic of China?**

**Dynamics of Privatization, Profitability and Productivity during the Reform Era**

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## **Abstract\***

Using the annual survey on large and medium-sized industrial enterprises in People's Republic of China (henceforth PRC) by the National Bureau of Statistics, this paper examines enterprise performance in north-east PRC. It shows clearly that the privatization of SOEs in the north-east region during 1995-2002 is rapid and often more aggressive than in the rest of PRC. The improvement in profitability and productivity of enterprises in the north-east PRC is also as significant as in the rest of PRC. Reforms in the north-east region have led to dramatic changes in the allocation of capital and labor, largely consistent with the national trend. Using regression analysis on the firm-level panel data, the study is able to measure and explain the differences in firm productivity and profitability across time, region, ownership, and market conditions, and to identify the remaining performance gaps that are specific only to the north-east region. The results of this study indicate that while the north-east region should continue the standard market-oriented reforms, such as privatization, encouraging market competition, and attracting FDI, it should also work hard to catch up in institutional reforms that could improve its local business environment since the performance gaps that are due specific to its location are still quite large.

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## 1. Introduction

The north-east region of PRC includes three provinces: Liaoning, Jiling, and Heilongjiang and was the key industrial base for the nation before 1978. The region was famous for its heavy industries and large state-owned enterprises, especially in iron and steel, machinery and petroleum industries. Historically the region was under heavy Russian and Japanese influences before 1949 and had relatively good transportation and industrial infrastructure. During the reform period after 1978, however, the north-east region has been lagging behind the south and east region of PRC in market-oriented industrial development. The north-east has attracted much less foreign direct investment and has had a much higher rate of laid-off workers than the south and east .

The Central Government of PRC has recently paid special attention to the north-east region through budgetary transfers and special economic policies but it is not clear how successful the new policies towards revitalizing the north-east region are. There is an impression from reading media reports that the performance of enterprises in the north-east region is much worse than the national average due to many historical legacies and slow reforms. Few research papers have examined systematically the performance of the north-eastern enterprises relative to the rest and the sources of their performance gap. This paper attempts to fill this gap in the literature by documenting the relative performance of large and medium industrial enterprises in PRC's north-east region. The paper classifies enterprises by profitability and shows how the north-east enterprises compare with others in the rest of the country. The paper also uses regression analysis to examine profitability and productivity and to separate the regional impact on enterprise performance from the impacts of institutions, technology, and other non-location specific factors.

The results show a comprehensive picture of the relative standing of the north-east region's large and medium-sized enterprises, giving a detailed profile of performance across major industrial sectors. This systematical empirical investigation of enterprise performance should provide a useful foundation for consideration of future reforms to the north-east region's industrial sector.

Section 2 provides a brief description of the data sources. Section 3 discusses profitability. Section 4 reports the regression results explaining the profitability and productivity gaps between the north-east and the rest of the nation. Section 5 concludes the paper.

## 2. Data Sources and Key Variables

This paper uses the firm-level annual survey data for PRC's large and medium-sized industrial enterprises during 1995-2002, which are collected and maintained at the National Bureau of Statistics (NBS) in Beijing. The firm data set allows us to compare enterprise performance across region, ownership, industry, and time.

The NBS survey covers more than 20,000 large and medium-sized industrial enterprises in PRC. There are some unusable observations due to incomplete data reporting or small enterprises, which were classified as large and medium-sized historically based on their design production capacity. The classification standard for the size of industrial enterprises was first issued in April 1988 by a number of government agencies including the State Planning Commission, National Bureau of Statistics, Ministry of Finance, Ministry of Labor, and State Economic Commission. It includes detailed specifications based on the measurement of the output quantity or capacity in technical quantity terms, instead of in value terms. The standard is clearly a legacy of the centrally planned economy and is being phased out. It now only applies to state-owned industrial enterprises. For private enterprises,

the National Bureau of Statistics is using sales as the unique variable in determining size of the enterprises.

In this study, observations satisfying one of the following screening conditions are regarded as unusable and deleted from the sample.

1. Net value of fixed assets < RMB100,000;
2. Intermediate inputs < RMB100,000;
3. Number of employees < 30;
4. Gross value of industrial inputs at current price < RMB100,000;
5. Sales < RMB100,000;
6. Total assets < RMB100,000;
7. Total assets – liquid assets < 0;
8. Total assets – gross fixed assets < 0;
9. Total assets - net value of fixed assets < 0;
10. Accumulated depreciation – current depreciation < 0;
11. MISSING data for total assets, number of employees, gross value of industrial output at current prices, net value of fixed assets, or sales.

After deleting the unusable observations, only about 5% or less of the sample enterprises have sales values less than RMB 5 million. The unusable observations are evenly distributed across ownership, industry, and region. Hence, excluding them from the usable sample should not create much bias in our analysis. However the sample does not have the same population over time. It covers the entire large and medium-sized industrial enterprises sector in PRC, as defined above, so enterprises that become smaller and no longer qualify for the group exit from the sample every year.

Table 1.1 shows the definition and summary statistics for key variables used in the regression analysis. Most variables are standard accounting variables, which do not need explanation. The variable IP, or Imputed Profit, is defined in the next section. A few other variables measuring the market environment are also explained below.

Table 1.2 shows the number of firms by industry in 2002 in the cleaned sample as well as the share of the north-east region in the sample. The north-east has a high share in timber logging (79.5%), gas production (20.2%), Timber products (18.4%), petroleum processing (17.9%), furniture (16.3%), pressing ferrous metal (12.9%), and petroleum extraction (12.5%).

Table 1.3 shows the weight of the sample in the context of the Chinese economy. In 2002, the value added of the sample enterprises is as high as 43.3% of PRC's total industrial value added and 19.2% of PRC's GDP. But the employment of the sample enterprises is only 16.7% of PRC's total industrial employment. The total liabilities of the sample enterprises are as much as 43.6% of PRC's total bank loans. Clearly the sample represents an important part of the Chinese economy and this makes statistical analysis of the sample useful for policy purposes. In the next section, we explore the position of north-eastern enterprises in the sample, focusing in particular on changes in ownership structure, capital allocation, and profitability.

The variable Ind3Concentration is the Herfindal index for measuring industrial concentration at 3-digit industry level. Table 1.4 and 1.5 shows both the formula and calculated value of industrial concentration over the period 1995-2002 for the sample at both the 2 and 3-digit industry level. The concentration levels in the two tables are ranked and we can see that at the 2 digit level, the most concentrated industry during the period is petroleum extraction (Ind2Concentration = 13.37%), followed by gas production (2.95%), chemical fibers (2.66%), tobacco (2.61%), and petroleum processing (2.45%).

The variable FIE\_ind2MKT\_Share is the market share of foreign invested enterprises in the sample at the 2-digit industry level, as shown in Table 1.6. As can be seen in this table, foreign invested enterprises have penetrated to most industries except the highly monopolized ones such as tap water production, tobacco, coal mining, ferrous mining, non-ferrous mining, and timber logging. The industries with highest concentration of foreign invested enterprises included electronic and telecom equipment (24.38%), cultural and sports products (23.85%), leather products (16.66%), furniture (13.44%), plastic products (12.66%), food production (11.37%), metal products (11.03%), garments (10.59%), and instruments (10.10%).

Table 1.7 shows the price index for gross output and value added. The index is calculated for each industry with 1990 price as 1, based on the available constant and current prices for each firm in the sample..

Table 1.8 shows the price index for intermediate inputs. The index is also calculated for each industry with 1990 price as 1. The calculation of this index is more complicated as we have incorporated the information for the constant and current prices for capital goods.<sup>1</sup>

Table 1.9 shows an alternative aggregate price index for output, fixed capital, and intermediate inputs. This table is based on Table 1.7 and 1.8 as well as the fixed capital price index produced by the NBS. Clearly on the whole, the aggregate price levels in PRC did not change much during the period of 1995-2002, although at the industry-level the price changes are more apparent. In the regressions, we use the aggregate price index for fixed capital, but apply the industry level price index for output and intermediate inputs.

In section 3, we will show statistical patterns of profitability and productivity for the north-eastern enterprises as compared with the national average as well as the changing allocation of capital and labor over time. In section 4, we will use regression analysis to explain the gaps in enterprise performance between the north-eastern and other regions.

### **3. Patterns of Profitability and Privatization**

First, we examine enterprise profitability in detail by categorizing enterprises from different regions into different groups on the basis of operating performance.

Second, we examine the changing ownership structure for the north-east as compared with the national trend. This shows the progress of privatization as well as extent of state ownership of enterprise assets across regions. The ownership factor is one of the most robust explanations for productivity gaps found in the regression analysis.

#### **How to define profitability for Chinese industrial enterprises?**

The primary objective of industrial enterprises is to produce output by effectively employing inputs such as capital, labor, and intermediate inputs. In this production process, enterprises create value added, which is defined here as:

$$VA = Y - M + VAT = Y - (MINPUT - FC) + VAT;$$

VA: value added;

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<sup>1</sup> The details of the derivation of this index can be found in the appendix to Xiao Geng and Tu Zhengge, "China's Industrial Productivity Revolution", available at [www.econ.hku.hk/~xiaogeng](http://www.econ.hku.hk/~xiaogeng)).

Y: gross value of industrial output;  
 VAT: value added tax bill;  
 M: intermediate inputs excluding financial charges;  
 MINPUT: intermediate inputs including financial charges;  
 FC: financial charges, mainly interest payments.

The above equation presents value added from the production perspective. Value added is created by the joint efforts of participants of enterprises and from the distribution perspective can be divided into a number of income components.

VA = ATP + TAX + D + FC + W;  
 ATP: after-tax-profits as an income flow to owners;  
 TAX: tax as a revenue flow to the governments;  
 D: current depreciation as a flow to maintain owners' equity value;  
 FC: financial charges as a payment for banking and financial services;  
 W: wages and other benefits as a payment for labor services.

We believe that the above presentation on the composition of value added provides a useful framework for measuring and analyzing the performance of the Chinese industrial enterprises since it traces each of the key components of value added in each enterprise.

Based on the above basic payment components of value added, we can derive a few commonly used accounting items summarizing the income-creating capacity of an enterprise:

Value Added:	VA =	ATP + TAX + D + FC + W;
Gross Profits:	GP = VA – W =	ATP + TAX + D + FC;
Gross Cash Flow:	GCF = GP – FC =	ATP + TAX + D;
Profits:	P = GCF – D =	ATP + TAX;
After-Tax-Profits:	ATP = P – TAX =	ATP.

It should be noted that the above five accounting items can take a positive, zero, or negative value. Their values indicate a firm's profitability. Based on the five payment or income components of value added, we can classify enterprises into eight profitability categories:

GFIN=[-4]	-M-W-FC-D-TAX	if VA <= 0;
GFIN=[-3]	-W-FC-D-TAX	if GP <= 0 AND VA > 0;
GFIN=[-2]	-FC-D-TAX	if GCF <= 0 AND GP > 0;
GFIN=[-1]	-D-TAX	if P <= 0 AND GCF > 0;
GFIN=[+1]	-TAX	if ATP <= 0 AND P > 0;
GFIN=[+2]		if ATP > 0 AND NROTA <= 5%;
GFIN=[+3]		if NROTA > 5% AND NROTA <= 15%;
GFIN=[+4]		if NROTA > 15%.

In the above categorization, M, W, FC, D, and TAX represent the five payment components of value added. The negative sign before these symbols can be read as "cannot pay all of". The underlying implication for the above grouping is explained below:

- Group [+4]: Enterprises in this group are highly profitable with their after-tax return on total assets (NROTA) higher than 15%.
- Group [+3]: Enterprises in this group are very profitable with their after-tax return on total assets (NROTA) greater than 5% but less than or equal to 15%.
- Group [+2]: Enterprises in this group are profitable with positive after-tax profits, but their after-tax return on total assets is less than 5%.

- Group [+1]: Enterprises in this group would make profits if they did not have to pay all taxes. They have negative after-tax profits ( $ATP=VA-W-FC-D-TAX$ ) but positive profits ( $P=VA-W-FC-D$ ). The term  $-T$  tells us that these enterprises are not able to pay all taxes (including profit and value added taxes) but can pay depreciation, financial charges, wages, and intermediate inputs. This group of enterprises is profitable before paying taxes. Although they make losses after paying taxes, they still create net positive value for the society and could survive in both the short and long run if their tax obligations are renegotiated.
- Group [-1]: Enterprises in this group would make profits if they did not have to pay all taxes and depreciation. They have negative profits ( $P=VA-W-FC-D$ ) but a positive gross cash flow ( $GCF=VA-W-FC$ ). The terms  $-D-T$  tell us that these enterprises are unable to pay all taxes and depreciation, but can pay all financial charges, wages, and intermediate inputs. This group of enterprises has no problem in meeting their variable or working capital costs of production and can survive in the short-run. However they are not profitable after paying current depreciation and may not be able to survive in the long-run, since their existing capital will be depleted rapidly.
- Group [-2]: Enterprises in this group would make profits if they did not have to pay all taxes, depreciation and financial charges. They have negative gross cash flow ( $GCF=VA-W-FC$ ) but positive gross profits ( $GP=VA-W$ ). The terms  $-FC-D-T$  tell us that these enterprises are unable to pay all taxes, depreciation, and financial charges but can pay wages and intermediate inputs. This group of enterprises is able to cover their variable or working capital costs of production related to labor and materials, but can pay only part of their financial charges and none of their current depreciation. They could survive in the short-run if their creditors tolerate their non-performing short-term debts. But they may have to be shut down in the long-run, since they cannot recover their fixed cost of capital.
- Group [-3]: Enterprises in this group would make profits if they did not have to pay all the taxes, depreciation, financial charges, and wages. They have negative gross profits ( $GP=VA-W$ ) but positive value added ( $VA=Y-MINPUT$ ). The terms  $-W-FC-D-T$  tell us that these enterprises are unable to pay all taxes, depreciation, financial charges and wages, but can pay for intermediate inputs. This group of enterprises could still create some positive value added but could only cover part of their labor costs. If the enterprises could cut their employment and improve labor productivity, they may survive in the short-run. If they are unable to cut their labor costs, they may have to be shut down even in the short-run. These enterprises cannot survive in the long run, since they cannot recover their fixed cost of capital.
- Group [-4]: Enterprises in this group would make profits if they did not have to pay all taxes, depreciation, financial charges, wages and intermediate inputs. They have negative value added ( $VA=Y-MINPUT$ ). The terms  $-M-W-FC-D-T$  tell us that these enterprises cannot pay all taxes, depreciation, financial charges, wages and intermediate inputs. This group of enterprises creates zero or negative value added. They cannot survive without net subsidies and may have to be closed down as soon as possible.

The purpose of grouping enterprises into the above eight categories is to link enterprise profitability with fixed and variable costs. This categorization reveals the underlying economic viability of enterprise operations. Poor-performing enterprises may be able to survive financially in the short-run through financial manipulations and non-payment of their obligations. However this would only buy some time for the enterprises to implement real

reform and restructuring measures, such as cutting employment, changing product lines, improving product quality and raising sales.

### **Is the profitability of firms in north-east PRC improving?**

Table 2.1-2.5 shows the number of firms in each of the eight profitability categories over 1995-2002 for each of the three north-east region provinces (Liaoning, Jilin, and Heilong Jiang) as well as for the entire national sample. Since the size of the firm can vary greatly within the sample, we should not read too much from the results in these tables in terms of their impact on the economy. However, as each loss-making enterprise presents a similar challenges to the policy-maker or shareholders in terms of restructuring, it is still useful to examine closely Table 2.1-2.5. Table 2.2 shows the profitability pattern for the national sample while Table 2.3, 2.4, 2.5 presents the profitability pattern for Liaoning, Jiling, and Heirongjiang separately. Table 2.1 is a consolidation of Table 2.2-2.4 and is useful for comparing each province's performance with the national average performance. The information provided here contrasts sharply with the frequently quoted performance indicator in PRC, the number of loss-making enterprises in a region. Here we show the number of enterprises in eight different profitability conditions. Both policy-makers and shareholders need to have different responses to firms in different categories. For example, firms in categories [-4] and [-3] need to be considered for bankruptcy, while firms in categories [-2] and [-1], and [+1] probably need to be considered for restructuring. On the other hand, the amount of firms in categories [ +2], [+3], [+4] indicates the health and competitiveness of a region's enterprises.

For the national sample results in Table 2.2, there is clear evidence that the number of enterprises in the worst groups [-4], [-3], and [-2] has been declining from 3.8%, 13.2%, and 9.5% in 1995 to 2.7%, 8.7%, and 3.1% in 2002 respectively. The number of enterprises in the best groups [+4] and [+3] has been increasing from 19.4% and 9.7% in 1995 to 24.1% and 21.5% in 2002, respectively. As we show later, this improvement in performance is accompanied with the disappearance of many state-owned enterprises from our sample due to privatization and bankruptcy.

Similar patterns of improving performance can be observed for all the three provinces in the north-east region as shown in Table 2.3, 2.4, and 2.5:

- For Liaoning, the number of enterprises in the worst groups [-4], [-3], and [-2] have declined from 9.6%, 22.1%, and 11.8% in 1995 to 3.0%, 9.9%, and 4.1% in 2002 respectively. The number of enterprises in the best groups [+3] and [+4] have increased from 10.0% and 4.8% in 1995 to 22.0% and 16.2% in 2002 respectively.
- For Jiling, the number of enterprises in the worst groups [-4], [-3], and [-2] have declined from 10.0%, 20.2%, and 12.1% in 1995 to 2.8%, 14.0%, and 5.1% in 2002 respectively. The number of enterprises in the best groups [+3] and [+4] have increased from 11.9% and 5.6% in 1995 to 17.9% and 19.3% in 2002 respectively.
- For Heilongjiang, the number of enterprises in the worst groups [-4], [-3], and [-2] have declined from 6.6%, 17.7%, and 11.1% in 1995 to 2.3%, 13.8%, and 5.8% in 2002 respectively. The number of enterprises in the best groups [+3] and [+4] have increased from 13.2% and 4.9% in 1995 to 19.1% and 10.9% in 2002 respectively.

The above evidence provides a fresh insight into the economic conditions of the north-east. Unlike the popular view of poor performance, the region is actually improving at a similar pace as the rest of the country in the profitability of large and medium industrial enterprises, although it is true that the north-east still lags behind the national average in enterprise profitability. The details of the gaps are shown in Table 2.1.



### **Is capital moving from worst to best-performing firms in the north-east of PRC?**

Another way to examine the performance of the north-east region is to look at the pattern of resource allocation involving capital and labor. In particular, the relevant policy question is whether capital is flowing from less efficient enterprises to more efficient ones. Using the eight profitability categories defined in the paper, Table 2.6-2.10 shows the amount of total assets what were being allocated to each of the eight categories of enterprises over the period of 1995-2002. The tables help us to understand how PRC's capital market was functioning in an imperfect and fragmented institutional setting. The impression from reading newspapers and research reports is that PRC's capital market is hugely distorted with repeated scandals and problems. But the careful examination of the national and regional samples shows a sharp contrast. One the whole, the well-performing groups of firms are getting more and more capital, while the poor performing groups are getting less..

- For the national sample, Table 2.7 shows that the worst performing three groups reduced total assets only slightly from RMB879 billion in 1995 to RMB858 billion in 2002 but the best performing two groups increased total assets drastically from RMB1.7 trillion in 1995 to RMB4.441 trillion, an increase of 160%.
- For the Liaoning sample, Table 2.8 shows that the worst performing three groups reduced total assets from RMB106 billion in 1995 to RMB46 billion in 2002, while the best performing two groups increased total assets drastically from RMB70 billion in 1995 to RMB195 billion in 2002, an increase of 179%.
- For the Jilin sample, Table 2.9 shows that the worst performing three groups reduced total assets from RMB38 billion in 1995 to RMB27 billion in 2002, while the best performing two groups increased total assets drastically from RMB54 billion in 1995 to RMB133 billion in 2002, an increase of 146%.
- For the Heilongjiang sample, Table 2.10 shows that the worst performing three groups reduced total assets from RMB50 billion in 1995 to RMB45 billion in 2002, while the best performing two groups increased its total assets drastically from RMB80 billion in 1995 to RMB161 billion in 2002, an increase of 101%.

Hence, on the whole, the north-east region is following the national trend in improving its allocation of capital. In particular, when we compare Heilongjiang with other regions in the best performing group, we find out that Heilongjiang has almost one quarter of its total assets in the most profitable enterprises and its best performing group's share of total assets increased from 20.6% to 27.2%. This is largely due to the concentration of PRC's petroleum enterprises in Heilongjiang. The consolidated table 2.6 provides a detailed comparison of each province's capital allocation pattern with the national pattern and should be useful to local policy makers for assessing the performance and potential of their local enterprises.

### **Which groups of firms are cutting/creating employment in the north-east of PRC?**

Is the improving performance of the north-eastern large and industrial enterprises helping employment in the region? A simple answer is no. On the whole, the sector of large and medium-sized industrial enterprises nation-wide has been cutting employment aggressively, especially in the north-east region, as shown in Table 2.11-2.15.

- For the nation, the total employment for this sector fell from 38.226 million in 1995 to 26.419 million in 2002, a drop of 30.8%.

- For Liaoning, the total employment for this sector fell from 3.181 million in 1995 to 1.453 million in 2002, a drop of 54.3%.
- For Jiling, the total employment for this sector fell from 1.384 million in 1995 to 0.766 million in 2002, a drop of 44.6%.
- For Heilongjiang, the total employment for this sector fell from 2.299 million in 1995 to 1.196 million in 2002, a drop of 47.9%.

However, consistent with the improving overall enterprise performance in the north-east region, the well performing firms are expanding their share of employment at the expense of the poor-performing ones:

- For Liaoning, the share of employment in the worst-performing groups [-4], [-3], and [-2] have declined from 5.3%, 19.0%, and 10.5% in 1995 to 1.4%, 7.2%, and 4.3% in 2002 respectively. The share of employment in the best-performing groups [+3] and [+4] have increased from 6.5% and 6.1% in 1995 to 21.2% and 7.2% in 2002 respectively.
- For Jiling, the share of employment in the worst-performing groups [-4], [-3], and [-2] have declined from 5.8%, 25.7%, and 7.7% in 1995 to 2.1%, 14.0%, and 3.7% in 2002 respectively. The share of employment in the best-performing groups [+3] and [+4] have increased from 20.6% and 2.3% in 1995 to 32.4% and 8.7% in 2002 respectively.
- For Heilongjiang, the share of employment in the worst-performing groups [-4], [-3], and [-2] have declined from 30.2% in 1995 to 19.8% in 2002. The share of employment in the best-performing groups [+3] and [+4] have increased from 21.9% in 1995 to 27.5% in 2002.

Hence, the improving enterprise performance in the north-east clearly improves the efficiency of the allocation of labor. The outcome of the labor market in the north-east region is entirely consistent with the pattern found at the national level. Again, this contrasts sharply with the general impression that the flexibility of the labor market in the north-east lags greatly behind the nation average. In fact, the extent of the cut in employment in the north-east region is much higher than the national average.

### **Is the privatization of SOEs slower in the north-east of PRC?**

In the previous sub-sections, we have shown evidence from various angles on the improving performance of enterprises, including those in the north-east region. We argue that this improvement is primarily driven by market-oriented reforms, including particularly the privatization of SOEs. There has been a popular view that the north-east is much slower in privatization and that is one of the key reason for its overall lagging performance. This popular view is mis-leading, however. While the north-east region may have many more SOEs, the speed of privatization appears similar to that in the rest of PRC. We measure privatization by changes in the share of SOEs in the number of enterprises (Table 2.16-2.20), in total assets (Table 2.21-2.25), and in the total employment (Table 2.26-2.30) for each of the three north-east provinces and for the nation as whole. The results can be summarized as follows:

### **Number of SOEs**

- For the nation as a whole, the number of SOEs fell from 15,361 in 1995 to 7,215 in 2002, a drop of 53% over eight years. The share of SOEs in the total number of firms in the sample decreased from 68.1% in 1995 to 32.5% in 2002, a decrease of 35.6 percentage points.
- For Liaoning, the number of SOEs fell from 1047 in 1995 to 257 in 2002, a drop of 75.5% over eight years. The share of SOEs in the total number of firms in the sample decreased from 67.5% in 1995 to 30.4% in 2002, a decrease of 37.1 percentage points.
- For Jilin, the number of SOEs fell from 531 in 1995 to 224 in 2002, a drop of 57.8% over eight years. The share of SOEs in the total number of firms in the sample decreased from 84.4% in 1995 to 52.1% in 2002, a decrease of 32 percentage points.
- For Heilongjiang, the number of SOEs fell from 608 in 1995 to 264 in 2002, a drop of 56.6% over eight years. The share of SOEs in the total number of firms in the sample decreased from 83.5% in 1995 to 51.4% in 2002, a decrease of 32.1 percentage points.

In summary, the three provinces in the north-east region privatized a higher percentage of SOEs than the rest of the nation and the share of SOEs in the total number of sample firms fell more than 30 percentage points over 1995-2002, consistent with the national trend.

### **Total assets:**

- For the nation as a whole, the total assets in SOEs increased slightly from RMB3.888 trillion in 1995 to RMB5.085 trillion in 1999, and then fell to RMB4.51 trillion in 2002. The share of SOEs in total assets fell from 75.4% in 1995 to 45.6% in 2002, a drop of 29.8 percentage points.
- For Liaoning, the total assets in SOEs increased slightly from RMB361 billion in 1995 to RMB426 billion in 1998, and then fell to RMB291 billion in 2002. The share of SOEs in total assets fell from 82.6% in 1995 to 47.5% in 2002, a drop of 35.1 percentage points.
- For Jilins, the total assets in SOEs increased slightly from RMB148 billion in 1995 to RMB195 billion in 1999, and then fell to RMB158 billion in 2002. The share of SOEs in total assets fell from 87.6% in 1995 to 58.3% in 2002, a drop of 29.3 percentage points.
- For Heilongjiang, the total assets in SOEs increased slightly from RMB197 billion in 1995 to RMB233 billion in 1999, and then fell to RMB171 billion in 2002. The share of SOEs in total assets fell from 88.3% in 1995 to 47.1% in 2002, a drop of 41.2 percentage points.

In summary, in the north-east region, the level of total assets of SOEs either fell or grew only slightly, but the share of SOEs in total assets fell significantly, ranging from about 30 percentage points in Jilin, which is the national average, to 35 percentage points in Liaoning and 41 percentage points in Heilongjiang. Hence, arguably the privatization of SOE assets in the north-east during 1995-2002 is more aggressive than the national trend.

## Employment

- For the national sample, the employment by SOEs fell from 31.337 million in 1995 to 13.072 million in 2002, a cut of 18.265 million or a decrease of 58.3%. The share of employment by SOEs in the sample fell from 82.0% in 1995 to 49.5% in 2002, a drop of 32.5 percentage points.
- For Liaoning sample, the employment by SOEs fell from 2.687 million in 1995 to 0.774 million in 2002, a cut of 1.913 million or a decrease of 71.2%. The share of employment by SOEs in the sample fell from 84.5% in 1995 to 53.2% in 2002, a drop of 31.3 percentage points.
- For Jilin sample, the employment by SOEs fell from 1.252 million in 1995 to 0.532 million in 2002, a cut of 0.72 million or a decrease of 57.5%. The share of employment by SOEs in the sample fell from 90.5% in 1995 to 69.4% in 2002, a drop of 21.1 percentage points.
- For Heilongjiang sample, the employment by SOEs fell from 2.137 million in 1995 to 0.811 million in 2002, a cut of 1.326 million or a decrease of 62%. The share of employment by SOEs in the sample fell from 92.9% in 1995 to 67.8% in 2002, a drop of 25.1 percentage points.

In summary, the fall in employment by SOEs in the north-east sample is not less than in the national sample, although the percentage drop in the share of SOE employment in the north-east sample is smaller than in the national sample. But still the privatization of SOE employment is very impressive.

All the above measures of privatization in terms of number of SOEs, their total assets, and their employment show that PRC's privatization program in the north-east region is as aggressive as the national trend, if not more aggressive. It is true however that the north-east region was much more dominated by the SOEs than the rest of PRC at the beginning of the reform. Also, many partially privatized enterprises are still with a significant share of state ownership. We should also remember that our sample covers the entire large and medium-sized industrial enterprises sector in PRC, so enterprises that become smaller and no longer qualify for the group exit from our sample every year.

The results in this section show clearly that the performance of the large and medium-sized industrial enterprises in the north-east region in terms of detailed profitability has been improving significantly, consistent with the national trend. Also the privatization of SOEs in the north-east region is as aggressive as in the rest of PRC. These conclusions contrast sharply with the general impression that the north-east region is far behind the nation in reform and in the development of the industrial sector during the reform period leading to large gaps in performance between the north-east region and the rest of PRC. In order to resolve the seeming contradictory evidence, we need to define clearly performance indicators and use regression analysis to explain the gaps in performance between the north-east and other regions. This is the task of the next section.

## 4. Explaining Performance Gaps

We use two categories of performance indicators related to productivity and to profitability. For productivity we will use gross output per person ( $Y/L$ ) and value added per person ( $VA/L$ ).

For profitability we use the ratio of operating profits to total assets (OP/TA) and the ratio of imputed profits to total assets (IP/TA). Operating profits are taken directly from the accounting reports of enterprises, whilst imputed profits are defined as above ( $IP = VA - W - FC - D$ ).

OP is a number reported by the enterprises based on their accounting profits and is subject to a very complicated set of rules that could vary across ownership, location, industry, and time. OP is also subject to manipulation by the enterprises when they attempt to hide or inflate profits. IP can be regarded as a proxy for underlying economic returns. Hence when we compare the performance of enterprises across ownership, region, industry, and time it is more useful to use IP.

The above four performance indicators are the dependent variables for the regressions. Table 1.10 and 1.11 shows the gaps of performance between the north-east region and the rest of PRC by industry at the 2-digit level for the period 1995-2002. Table 1.10 is ranked by the productivity gaps. Among the 37 industries, the north-east region has only three industries that have higher value added per worker than the rest of PRC: food production, petroleum processing, non-metal mining. The gaps in productivity are 29%, 24% and 3% respectively for the three industries. Clearly the north-east region is on the whole well behind the rest of PRC in industrial productivity.

Table 1.11 has the same contents as in Table 1.10 but is ranked by the gap in the return on total assets as measured by imputed profits. As shown in the table, only 3 out of 37 industries in the north-east region have higher returns than in the rest of PRC: petroleum extraction, petroleum processing and furniture with the gaps of 5.5%, 1.5% and 0.3% respectively. Hence, it is clear that the north-east region is well behind the rest of PRC in industrial profitability on the whole.

The above gross performance indicators reflect exactly the impression we have about the north-east region from newspapers and research reports, but seems contradictory to what we have presented in the last section on the improving performance of the north-east. The problem is that the large performance gaps may be caused by many identifiable factors in the region, such as the higher share of SOEs, differences in capital intensity and in capital structure, such as a higher welfare (or non-productive) component of capital. In the following regression analysis using panel data estimation methods, we attempt to explain the performance gaps, by identifying statistically the causal factors involved. We use four basic regression models that are variants of a simple 'structure-conduct-performance' approach. These explain performance by variables that reflect scale, factor intensity, competition, ownership and various dummies for type of industry, region of location and time.

### **Model I: The overall performance gap specific to the north-east region**

The regression equation for model I is :

$$\begin{aligned} \ln(Y_{it} / L_{it}) = & \alpha_0 + \alpha_1 \ln(L_{it}) + \alpha_2 \ln(Kp_{it} / L_{it}) + \alpha_3 \ln(Kf_{it} / L_{it}) + \alpha_4 \ln(M_{it} / L_{it}) \\ & + \alpha_5 \square Ind3Concentration_{it} + \alpha_6 \square FIE\_ind2MKT\_Share_{it} \\ & + \sum_{j=ind2} \beta_j [\ln(Kp_{it} / L_{it}) \square D_{it}^{ind2}] + \sum_{j=ind2} \phi_j \square D_{it}^{ind2} \\ & + \sum_{j=type} \lambda_j \square D_{it}^{type} + \sum_{j=year} \kappa_j \square D_{it}^{year} + \alpha_7 \square D_{it}^{nep} + v_{it}; \end{aligned}$$

The key variables are as already defined in the previous sections. Subscripts t and i refer to time and enterprise, respectively. All performance variables are explained in the same way,

so here output per worker (Y/L) stands for the four alternative performance indicators discussed above. The independent variables include the following:

- $\ln(L)$ : size of the firm (as measured by number of workers);
- $\ln(Kp/L)$ : intensity of production fixed capital;
- $\ln(Kf/L)$ : intensity of non-production/welfare capital;
- $\ln(M/L)$ : intensity of intermediate inputs;
- Ind3Concentration: Herfindal index for industry concentration at 3-digit industry level as defined in table 1.4;
- FIE\_ind2MKT\_Share: market share of foreign invested enterprises at 2 digit industry level as shown in table 1.5;
- $D^{ind2}$  Industry dummies at 2 digit industry level;
- Interaction terms between industry dummies ( $D^{ind2}$ ) and  $\ln(Kp/L)$ ;
- Ownership dummies ( $D^{type}$ );
- Year dummies ( $D^{year}$ );
- North-east region dummy ( $D^{nep}$ ).

The main purpose of this regression model is to identify the performance gap between the enterprises in the north-east and in the rest of PRC after controlling for other factors that are not specific to the location effects. In other words, the regression coefficient for the north-east region dummy ( $D^{nep}$ ) indicates the performance gap for enterprises in the north-east that is specifically due to the location effects of the region. As shown in Table 3.1, this is significantly negative, indicating that if all the other controlling variables have the same value, enterprises located in the north-east are likely to have lower Y/L by 10 percentage points, lower VA/L by 44 percentage points, lower OP/TA by 2 percentage points, and lower IP/TA by 4 percentage points compared with enterprises in other locations in PRC. This performance gap is specific to the north-east region and cannot be explained by the other controlling variables included in the regression.

Most of the controlling variables have systematically significant effects on performance. These effects can be summarized as follows:

- The size of the firm has small but significantly positive effects on both measures of profits and output per worker (Y/L), but strong and significantly negative effects on productivity as measured by VA/L;
- The intensity of production and non-production fixed capital and intermediate inputs on the whole have a strong and significant contribution to all performance indicators, so more capital and intermediate inputs per worker raises performance;
- The higher is industry concentration the lower is performance;
- The presence of foreign invested enterprises improves the performance of all enterprises in an industry;
- Performance varies significantly across industries;
- The non-state enterprises perform much better than the SOEs. In particular, in terms of VA/L, the gap is as large as 36% to 80%. The details of the performance gap due to ownership effects are shown in table 3.2;
- The performance of all enterprises has improved over the years, particularly since 2000, as shown in detail in table 3.2.

While standard reforms such as privatization, the introduction of market competition and foreign direct investment can certainly help the north-east region to improve enterprise performance, the region still has a performance gap that is specific to its own location. As our regression results are based on a very large and representative data set and on a rigorous econometric approach, the conclusion here is much more robust and systematic than that drawn from casual observation or limited case studies.

**Model II: The performance gap by ownership, industry and year within the north-east, whilst removing its negative location effect.**

This model controls for the same scale, technology, competition and ownership used in Model I, whilst in addition removing effect of the **negative location-specific impact of the north-east region**. The specification of regression Model II is the following:

$$\begin{aligned} \ln(Y_{it} / L_{it}) = & \alpha_0 + \alpha_1 \ln(L_{it}) + \alpha_2 \ln(Kp_{it} / L_{it}) + \alpha_3 \ln(Kf_{it} / L_{it}) + \alpha_4 \ln(M_{it} / L_{it}) \\ & + \alpha_5 \text{Ind3Concentration}_{it} + \alpha_6 \text{FIE}_{ind2} \text{MKT}_{Share}_{it} \\ & + \sum_{j=ind2} \beta_j [\ln(Kp_{it} / L_{it}) \square D_{it}^{ind2}] + \sum_{j=ind2} \phi_j \square D_{it}^{ind2} \\ & + \sum_{j=type} \lambda_j \square D_{it}^{type} + \sum_{j=year} \kappa_j \square D_{it}^{year} + \alpha_7 \square D_{it}^{nep} \\ & + \alpha_8 [D_{it}^{nep} \square \ln(Kf_{it} / L_{it})] + \sum_{j=type} \eta_j [D_{it}^{nep} \square D_{it}^{type}] \\ & + \sum_{j=year} \zeta_j [D_{it}^{nep} \square D_{it}^{year}] + \sum_{j=ind2} \varphi_j [D_{it}^{nep} \square D_{it}^{ind2}] + v_{it}; \end{aligned}$$

The control variables are the same as in Model I, but here in addition to the north-east regional dummy ( $D^{nep}$ ), we include a set of four interaction terms:

- between  $D^{nep}$  and  $\ln(Kf/L)$ ;
- between  $D^{nep}$  and  $D^{ind2}$ ;
- between  $D^{nep}$  and  $D^{type}$ ;
- between  $D^{nep}$  and  $D^{year}$ .

The first set of interaction terms ( $D^{nep} * \ln(Kf/L)$ ) is designed to check for the effect of non-productive or welfare capital on performance, that is specific to the north-east region. We often hear the claim that the enterprises in the north-east have larger social burdens, such as the provision of employee housing and fringe benefits like schools and hospitals. If this effect is important, it will show up as a statistically significant negative coefficient for this interaction term. The results in table 3.3 show the coefficient is positive, although it is statistically not very significant.

The second set of interaction terms is designed to compare the performance gap between the north-east region and the rest of PRC by industry, after controlling for systematic factors, like scale and ownership, included in Model I. It should be noted that the control variables here include in addition the north-east dummy ( $D^{nep}$ ) and the standard (that is the non-interactive) industry dummies ( $D^{ind2}$ ). Thus the coefficients on the interactive terms ( $D^{nep} * D^{ind2}$ ) will indicate the performance gap after controlling for both industry and location effects. In another words, they will indicate the gap in productivity or profitability between enterprises in the north-east and those in the rest of the country, after (and only after) the negative impact of the north-east region's locational effect is taken away. The regression method allows us to do this counter-factual exercise to decompose the impact on performance arising from different sources. We should read the results here together with our comparison in tables 1.10 and 1.11 on the gross performance by industry. In table 1.10 and 1.11, we only find 3 out of 37 industries in the north-east, which are performing better than in the rest of PRC. In table 3.3 and 3.4, after controlling or taking away the impact of various factors, there are 26 out of 37 industries in the north-east region, which are doing better than the rest of PRC, using imputed profits (IP/TA) as the measure of performance. Among the 26 better performing industries, for 12 the differences with the rest of the country are statistically significant. In another words, the poor performance as shown by the north-east region in the

industry by industry comparison of performance indicators is largely due to a range of systematic factors, for example relating to ownership and competition, and to location-specific effects. If the north-east region can catch up in these location and non-location specific areas of reform and development, these results suggest that the region has the potential to have many more nationally competitive industries. However for this potential to be realized all of these disadvantageous features of the region will have to be corrected.

The third set of interaction terms ( $D^{nep} * D^{type}$ ) is designed to check if the non-state enterprises in the north-east region are doing exceptionally better or worse than the non-state enterprises in the rest of PRC after controlling for location and non-location factors, since there is a hypothesis that the north-east region does not have a good environment for the development of non-state enterprises. The results confirm this perspective. The private enterprises in the north-east region seem to perform much worse than those in other regions even after controlling for the negative impact of the general location effect that is associated with the north-east region. This unfriendliness towards private ownership however does not apply to the foreign and Hong Kong, China invested firms, which seems better able to deal with local business environment than the purely domestic private enterprises.

The fourth set of the interaction terms ( $D^{nep} * D^{year}$ ) is designed to examine the timing of the performance of enterprises in the north-east region. The results show that relative to enterprises in the rest of PRC, enterprises in north-east region have improved their performance significantly since 1998. It seems that the central government's policy of invigorating the north-east region has had positive effects, in addition to the general cyclical recovery since 1999.

The magnitude of the effects of the above interaction terms are shown in detail in table 3.4 for convenience of comparison. Table 3.5 ranks the 37 industries based on the north-east region's specific industry performance advantage, taking away the impacts of systematic factors such as industry, ownership, market competition, and locational effects. This table should be used when considering the potential comparative advantage of industries in the north-east region. For investors already operating in the region (and therefore already affected by its locational disadvantages) table 3.5 should be much more helpful than tables 1.10 and 1.11. However there is still a broad similarity in ranking between actual profitability performance (as in table 1.11) and potential performance (as in 3.5); for example, Petroleum activities are the most profitable relative to similar activities elsewhere in the country in both tables and Leather activities are the relatively least profitable in both tables.

### Model III: The overall performance gap specific to the three provinces

Regression model III is similar to model I, except that the north-east region dummy is replaced by three provincial dummies:  $D^{Liaoning}$ ,  $D^{Jilin}$ , and  $D^{Heilongjiang}$ . Hence the model is

$$\begin{aligned} \ln(Y_{it} / L_{it}) = & \alpha_0 + \alpha_1 \ln(L_{it}) + \alpha_2 \ln(Kp_{it} / L_{it}) + \alpha_3 \ln(Kf_{it} / L_{it}) + \alpha_4 \ln(M_{it} / L_{it}) \\ & + \alpha_5 \square Ind3Concentration_{it} + \alpha_6 \square FIE\_ind2MKT\_Share_{it} \\ & + \sum_{j=ind2} \beta_j [\ln(Kp_{it} / L_{it}) \square D_{it}^{ind2}] + \sum_{j=ind2} \phi_j \square D_{it}^{ind2} \\ & + \sum_{j=type} \lambda_j \square D_{it}^{type} + \sum_{j=year} \kappa_j \square D_{it}^{year} + \alpha_7 \square D_{it}^{Liaoning} \\ & + \alpha_8 \square D_{it}^{Jiling} + \alpha_9 \square D_{it}^{Heilongjiang} + v_{it}; \end{aligned}$$

This regression is designed to check if the three provinces in the north-east region have performed differently relative to the rest of PRC. The results in table 3.6 show that the provinces performed similarly and have almost the same performance gap with the rest of



PRC. Hence there is no significant ‘within north-east effect’ with all three provinces sharing similar locational disadvantages.

#### Model: IV: Performance gap specific to location by province

In regression Model IV, the three provincial dummies are replaced by 28 provincial dummies in order to get a ranking of the performance gap across PRC’s provinces that is specific to location effects, in another words, taking away the systematic impacts from the control variables, like scale, technology, ownership, competition and so forth. The specification of the model is the following.

$$\begin{aligned} \ln(Y_{it} / L_{it}) = & \alpha_0 + \alpha_1 \ln(L_{it}) + \alpha_2 \ln(Kp_{it} / L_{it}) + \alpha_3 \ln(Kf_{it} / L_{it}) + \alpha_4 \ln(M_{it} / L_{it}) \\ & + \alpha_5 \text{Ind3Concentration}_{it} + \alpha_6 \text{FIE\_ind2MKT\_Share}_{it} \\ & + \sum_{j=\text{ind2}} \beta_j [\ln(Kp_{it} / L_{it}) \text{D}_{it}^{\text{ind2}}] + \sum_{j=\text{ind2}} \phi_j \text{D}_{it}^{\text{ind2}} \\ & + \sum_{j=\text{type}} \lambda_j \text{D}_{it}^{\text{type}} + \sum_{j=\text{year}} \kappa_j \text{D}_{it}^{\text{year}} + \sum_{j=\text{place2}} \sigma_j \text{D}_{it}^{\text{place2}} + v_{it}; \end{aligned}$$

The results are shown in table 3.7 and 3.8. Relative to the rest of the country the three north-east provinces performed best when using imputed profit (IP/TA) as a measure of performance. By this measure the ranking out of 28 provinces is 21 for Heilongjiang, 22 for Jilin, and 27 for Liaoning. Controlling for everything else, the locational disadvantage creates a lower profit rate of about 7 percentage points for Heilongjiang 22 and Jilin and 8 percentage points for Liaoning.<sup>2</sup> This table shows that there is a long way to go for the three provinces in improving their business environment, in addition to the standard reforms such as privatization, market competition, and attracting FDI. In other words even if they brought their situation up to the national level in terms of ownership and competition they would still have substantially lower enterprise profitability due to their locational disadvantages. Although we are not quite sure what accounts for the location-specific barriers to performance as a broad explanation we speculate that institutional infrastructure and the openness of the local economies, are likely to be the main factors. .

## 5. Conclusion

Using the annual survey on large and medium-sized industrial enterprises in PRC by the National Bureau of Statistics, this paper examines enterprise performance in North-East PRC. It shows clearly that the privatization of SOEs in the north-east region during 1995-2002 has been rapid and often more aggressive than in the rest of PRC. The improvement in profitability and productivity of enterprises in the north-east is also as significant as in the rest of PRC. Reforms in the north-east region have led to dramatic changes in the allocation of capital and labor, largely consistent with the national trend. Using regression analysis on firm-level panel data, the study is able to measure and explain the differences in firm productivity and profitability across time, region, ownership, and market conditions, and to identify the remaining performance gaps that are specific only to the north-east region. The results of this study indicate that while the north-east region should continue the standard market-oriented reforms, such as privatization, encouraging market competition, and attracting FDI, it should also work hard to catch up in institutional reforms that could improve its local business environment, since the performance gaps that are due specifically to its location are quite large and are the key barrier to the region’s further growth and

<sup>2</sup> These are lower rates of profit (IP/TA) relative to the province of Shandong, which is taken as the reference point.

development. Some of the location-specific lags in productivity and profitability may be due to purely geographic factors, such as climate and distance from overseas Chinese market-oriented economies, such as Hong Kong, China and Taipei, China. But it seems clear that a significant part of the location-specific performance gaps can be narrowed through reforms that focus on institutional infrastructure. These should aim to improve the quality of bureaucracy, implement the rule of law, control corruption, encourage local financial sector development, and reduce barriers to inter-province trade and investment. This is a large agenda but our results suggest that the returns to such efforts through higher productivity and profitability will be high.

**Table 1.1 Summary Statistics of Key Regression Variables**

<b>Variables</b>	<b>Variable Definitions</b>	<b>Observations</b>	<b>Mean</b>	<b>Std. Dev.</b>
<b>Y/L</b>	Gross Output per Labor at 1990 Price (1000 yuan/person)	177,086.00	100	272
<b>VAL</b>	Value Added per Labor at 1990 Price (1000 yuan/person)	177,086.00	27	95
<b>OP/TA</b>	Operating Profits / Total Assets	177,086.00	-0.04%	8.88%
<b>IP/TA</b>	Imputed Profits / Total Assets	174,481.00	7.30%	15.17%
<b>Kp/L</b>	Production Fixed Capital per Labor at 1990 Price (1000 yuan/person)	177,086.00	77	354
<b>Kf/L</b>	Non-Production Fixed Capital per Labor at 1990 Price (1000 yuan/person)	173,708.00	14	53
<b>M/L</b>	Intermediate Inputs at 1990 Price (1000 yuan/person)	177,086.00	71	224
<b>Ind3Concentration</b>	Herfindal Index for Measuring Industry Concentration at 3-Digit Level	177,086.00	0.9%	1.7%
<b>FIE_ind2MKT_Share</b>	Market Share of Foreign Invested Enterprises at 2-Digit Industry Level	177,086.00	4.8%	13.2%

**Table 1.2 Number of Firms by Industry in 2002**

IND2	North-East provinces	Other provinces	NE/Total
[06]Coal Mining	23	236	8.9%
[07]Petroleum Extraction	5	35	12.5%
[08]Ferrous Mining	3	38	7.3%
[09]Nonferrous Mining	14	132	9.6%
[10]Nonmetal Mining	11	147	7.0%
[12]Timber Logging	70	18	79.5%
[13]Food Processing	90	939	8.7%
[14]Food Production	52	510	9.3%
[15]Beverage	70	655	9.7%
[16]Tobacco	11	125	8.1%
[17]Textile	86	1,607	5.1%
[18]Garments	39	405	8.8%
[19]Leather	12	209	5.4%
[20]Timber	32	142	18.4%
[21]Furniture	14	72	16.3%
[22]Papermaking	35	549	6.0%
[23]Printing	25	417	5.7%
[24]Cultural	5	147	3.3%
[25]Petroleum Processing	24	110	17.9%
[26]Raw Chemical	89	1,645	5.1%
[27]Medical	89	773	10.3%
[28]Chemical Fiber	14	199	6.6%
[29]Rubber	20	210	8.7%
[30]Plastic	54	670	7.5%
[31]NonmetalProducts	108	1,589	6.4%
[32]Pressing Ferrous	45	305	12.9%
[33]Pressing of Nonferrous	26	358	6.8%
[34]Metal Products	48	669	6.7%
[35]Ordinary Machinery	130	1,341	8.8%
[36]Special Equipment	100	1,030	8.8%
[37]Transport Equipment	120	1,231	8.9%
[40]Electric Equipment	96	1,080	8.2%
[41]Electronic and Telecom	57	1,142	4.8%
[42]Instruments	24	333	6.7%
[43]Other Manufacturing	12	197	5.7%
[44]Electric Power	91	881	9.4%
[45]Gas Production	20	79	20.2%
[46]Tap Water	25	206	10.8%

**Table 1.3 The Weight of the Sample Enterprises in the Chinese Economy**

	1995	1996	1997	1998	1999	2000	2001	2002
(1) Number of enterprises in the sample	22,543	22,974	23,311	22,293	21,463	20,738	21,898	22,220
(2) Number of all industrial SOEs plus the non-state industrial enterprises with annual sales above RMB 5 million				165,080	162,033	162,885	171,256	181,557
(3) Reported value added for all enterprises in the sample (RMB Billion)	958	1,017	1,080	1,131	1,289	1,521	1,742	2,013
(4) Total industrial value added in China (RMB Billion)	2,472	2,908	3,241	3,339	3,509	3,905	4,238	4,654
(3)/(4) = Sample VA / China Industrial VA	38.8%	35.0%	33.3%	33.9%	36.7%	39.0%	41.1%	43.3%
(5) GDP (RMB Billion)	5,848	6,789	7,446	7,835	8,207	8,947	9,731	10,479
(3)/(5) = Sample VA / China GDP	16.4%	15.0%	14.5%	14.4%	15.7%	17.0%	17.9%	19.2%
(6) Number of employees for all enterprises in the sample	38	38	37	34	31	28	27	26
(7) Number of employees in all industrial enterprises	157	162	166	166	164	162	163	158
(6)/(7) = Sample Employment / China Industrial Employment	24.4%	23.1%	22.1%	20.2%	18.7%	17.4%	16.6%	16.7%
(8) Urban employment in China	191	198	202	216	224	232	239	248
(6)/(8) = Sample Employment / China Urban Employment	20.0%	18.9%	18.1%	15.5%	13.7%	12.2%	11.3%	10.7%
(9) Total employment in China	679	689	696	706	714	721	730	737
(6)/(9) = Sample Employment / China Employment	5.6%	5.4%	5.3%	4.7%	4.3%	3.9%	3.7%	3.6%
(7)/(9) = China Industrial Employment / China Employment	23.0%	23.5%	23.8%	23.5%	23.0%	22.5%	22.3%	21.4%
(10) Total Liabilities for all enterprises in the sample (RMB Billion)	3,286	3,707	4,201	4,610	4,805	4,963	5,329	5,722
(11) Total loans in China (RMB Billion)	5,054	6,116	7,491	8,652	9,373	9,937	11,231	13,129
(10)/(11) = Sample Total Liabilities / Total Loans in China	65.0%	60.6%	56.1%	53.3%	51.3%	49.9%	47.4%	43.6%

**Table 1.4 Index of Industry Concentration at the Level of 2-Digit Industry**

IND2	1995	1996	1997	1998	1999	2000	2001	2002	Average
[07]Petroleum Extraction	17.59%	17.15%	17.25%	12.11%	12.73%	12.46%	11.41%	10.30%	<b>13.37%</b>
[45]Gas Production	5.17%	5.74%	5.45%	1.99%	1.25%	2.94%	1.41%	1.32%	<b>2.95%</b>
[28]Chemical Fiber	4.69%	3.94%	3.31%	1.99%	2.21%	2.76%	0.96%	0.99%	<b>2.66%</b>
[16]Tobacco	3.17%	3.17%	2.89%	2.90%	2.46%	2.41%	2.04%	1.82%	<b>2.61%</b>
[25]Petroleum Processing	4.55%	3.88%	3.48%	1.97%	1.95%	1.71%	1.37%	1.35%	<b>2.45%</b>
[32]Pressing Ferrous	1.32%	1.31%	1.23%	1.00%	0.99%	0.98%	0.93%	0.84%	<b>1.09%</b>
[46]Tap Water	1.69%	1.36%	1.47%	1.30%	1.21%	0.38%	0.41%	0.40%	<b>0.99%</b>
[08]Ferrous Mining	1.32%	0.94%	0.75%	2.03%	0.78%	0.75%	0.61%	0.52%	<b>0.95%</b>
[37]Transport Equipment	0.83%	1.05%	1.09%	0.76%	0.78%	0.76%	0.82%	0.84%	<b>0.86%</b>
[06]Coal Mining	0.80%	0.73%	0.63%	0.54%	0.57%	0.67%	0.78%	0.79%	<b>0.69%</b>
[29]Rubber	0.57%	0.57%	0.59%	0.59%	0.45%	0.46%	0.48%	0.51%	<b>0.53%</b>
[41]Electronic and Telecom	0.41%	0.64%	0.60%	0.60%	0.40%	0.16%	0.44%	0.34%	<b>0.44%</b>
[42]Instruments	0.07%	0.26%	0.33%	0.34%	0.34%	0.48%	0.87%	0.70%	<b>0.42%</b>
[09]Nonferrous Mining	0.60%	0.43%	0.43%	0.20%	0.28%	0.28%	0.27%	0.32%	<b>0.36%</b>
[12]Timber Logging	0.25%	0.24%	0.27%	0.33%	0.39%	0.44%	0.45%	0.43%	<b>0.34%</b>
[40]Electric Equipment	0.10%	0.14%	0.22%	0.30%	0.38%	0.37%	0.40%	0.36%	<b>0.28%</b>
[15]Beverage	0.13%	0.14%	0.19%	0.20%	0.28%	0.35%	0.43%	0.52%	<b>0.28%</b>
[33]Pressing of Nonferrous	0.28%	0.26%	0.23%	0.24%	0.23%	0.26%	0.21%	0.17%	<b>0.23%</b>
[44]Electric Power	0.11%	0.21%	0.19%	0.25%	0.20%	0.34%	0.23%	0.23%	<b>0.22%</b>
[26]Raw Chemical	0.25%	0.18%	0.26%	0.21%	0.22%	0.26%	0.14%	0.13%	<b>0.21%</b>
[27]Medical	0.14%	0.14%	0.17%	0.16%	0.22%	0.21%	0.18%	0.19%	<b>0.18%</b>
[36]Special Equipment	0.26%	0.21%	0.19%	0.16%	0.19%	0.10%	0.09%	0.12%	<b>0.17%</b>
[20]Timber	0.13%	0.14%	0.26%	0.13%	0.12%	0.11%	0.14%	0.14%	<b>0.15%</b>
[14]Food Production	0.20%	0.17%	0.14%	0.09%	0.10%	0.13%	0.17%	0.18%	<b>0.15%</b>
[10]Nonmetal Mining	0.17%	0.11%	0.11%	0.11%	0.11%	0.12%	0.14%	0.16%	<b>0.13%</b>
[24]Cultural	0.07%	0.12%	0.13%	0.13%	0.15%	0.12%	0.12%	0.11%	<b>0.12%</b>
[22]Papermaking	0.04%	0.04%	0.04%	0.05%	0.08%	0.09%	0.15%	0.22%	<b>0.09%</b>
[23]Printing	0.04%	0.05%	0.06%	0.07%	0.08%	0.08%	0.12%	0.07%	<b>0.07%</b>
[35]Ordinary Machinery	0.06%	0.05%	0.05%	0.06%	0.07%	0.07%	0.08%	0.09%	<b>0.06%</b>
[21]Furniture	0.07%	0.07%	0.09%	0.08%	0.04%	0.05%	0.04%	0.05%	<b>0.06%</b>
[19]Leather	0.02%	0.03%	0.04%	0.04%	0.06%	0.06%	0.08%	0.06%	<b>0.05%</b>
[13]Food Processing	0.03%	0.04%	0.03%	0.03%	0.05%	0.05%	0.06%	0.06%	<b>0.04%</b>

[18]Garments	0.02%	0.03%	0.04%	0.04%	0.05%	0.04%	0.06%	0.05%	<b>0.04%</b>
[30]Plastic	0.02%	0.02%	0.02%	0.02%	0.03%	0.03%	0.04%	0.04%	<b>0.03%</b>
[17]Textile	0.01%	0.02%	0.02%	0.02%	0.02%	0.02%	0.03%	0.04%	<b>0.02%</b>
[34]Metal Products	0.02%	0.01%	0.02%	0.02%	0.02%	0.02%	0.02%	0.02%	<b>0.02%</b>
[31]NonmetalProducts	0.01%	0.01%	0.01%	0.02%	0.01%	0.01%	0.03%	0.02%	<b>0.02%</b>
[43]Other Manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	<b>0.00%</b>
All	0.32%	0.33%	0.33%	0.28%	0.29%	0.30%	0.28%	0.27%	<b>0.30%</b>

$$Ind2Concentration = \sum_{j=top1}^{top10} \left[ \frac{sales_j}{Ind2Sales} \right]^2$$

**Table 1.5 Index of Industry Concentration at the Level of 3-Digit Industry**

Revised 3-digit industry code (ind3)	1995	1996	1997	1998	1999	2000	2001	2002	Average
[072] natural gas extraction				95.23%	70.31%	57.87%	60.86%	62.48%	<b>69.35%</b>
[062] coal processing	12.71%	37.09%	13.52%	9.79%	16.82%	20.51%	43.69%	38.50%	<b>24.08%</b>
[093] light metal mining	35.80%			13.74%			14.28%	13.25%	<b>19.27%</b>
[159+155] tea and other beverage	5.75%	3.60%	3.47%	15.62%	20.72%	21.18%	26.75%	32.10%	<b>16.15%</b>
[071+073] petroleum extraction	18.67%	18.16%	18.27%	12.86%	13.57%	13.11%	12.15%	10.99%	<b>14.72%</b>
[169+161] other tobacco	11.77%	15.74%	13.92%	14.74%	8.76%	9.41%	10.40%	12.05%	<b>12.10%</b>
[257] coking	7.32%	6.42%	15.06%	6.54%	6.96%	8.12%	7.04%	6.16%	<b>7.95%</b>
[462] supply of tap water	12.33%	9.93%	13.32%	8.79%	7.48%	2.68%	2.65%	2.28%	<b>7.43%</b>
[451] gas producing	5.38%	7.20%	14.35%	7.30%	4.76%	6.80%	4.09%	3.37%	<b>6.66%</b>
[321] smelting of ferrous	4.08%	4.98%	5.45%	5.57%	6.96%	6.57%	7.82%	1.89%	<b>5.41%</b>
[368] special repairing equipment	5.91%	7.29%	6.52%	4.80%	3.97%	3.93%	5.12%	5.35%	<b>5.36%</b>
[452] gas supply	13.35%	12.77%	1.66%	1.94%	1.04%	5.16%	2.43%	2.40%	<b>5.09%</b>
[413~2] broadcasting radar equipment	16.30%	2.17%	2.04%	2.42%	2.39%	1.86%	3.21%	3.77%	<b>4.27%</b>
[282] synthetic fiber	6.75%	5.64%	4.62%	2.81%	3.03%	3.67%	1.36%	1.44%	<b>3.66%</b>
[419~8] other electronic and telecom	6.26%	5.41%	5.09%	3.03%	3.12%	2.84%	2.97%	3.07%	<b>3.97%</b>
[409~8] others electric equipment	2.52%	3.22%	2.68%	2.55%	4.84%	4.56%	4.02%	3.66%	<b>3.51%</b>
[411] telecom equipment	3.99%	5.36%	4.26%	4.01%	3.49%	1.42%	2.90%	3.32%	<b>3.59%</b>
[324] refining of steel	3.55%	4.30%	4.35%	3.57%	3.36%	2.94%	2.84%	2.24%	<b>3.40%</b>
[265] organic chemical products	3.26%	3.12%	4.17%	3.43%	3.48%	3.48%	2.21%	2.11%	<b>3.16%</b>
[096] rare metal mining	5.25%	2.96%	3.38%	1.59%	1.79%	2.18%	1.97%	3.76%	<b>2.86%</b>
[162] tobacco producing	3.20%	3.25%	2.98%	2.96%	2.54%	2.46%	2.09%	1.86%	<b>2.67%</b>
[377] aviation equipment	2.25%	3.05%	2.45%	2.40%	2.35%	2.64%	2.78%	3.24%	<b>2.64%</b>
[281+285] chemical fiber	3.26%	2.63%	2.75%	1.71%	2.44%	2.98%	2.76%	2.39%	<b>2.62%</b>
[252+251+253] petroleum refining	4.77%	4.06%	3.69%	2.14%	2.09%	1.77%	1.43%	1.43%	<b>2.67%</b>
[376] shipping equipment	2.65%	2.84%	2.63%	2.57%	2.58%	2.25%	2.70%	2.46%	<b>2.58%</b>
[371] railway transport equipment	2.77%	2.56%	2.27%	2.22%	2.58%	2.98%	2.65%	2.34%	<b>2.55%</b>
[322] smelting of steel	3.25%	2.86%	2.59%	2.09%	1.92%	1.94%	1.67%	1.81%	<b>2.27%</b>
[414] computer equipment	2.57%	2.20%	3.51%	3.54%	2.19%	1.64%	1.98%	1.55%	<b>2.40%</b>
[266] synthetic chemical materials	2.96%	2.55%	3.56%	2.48%	2.10%	2.26%	1.49%	1.25%	<b>2.33%</b>
[296] recycled rubber	0.65%	0.79%	0.90%	1.22%	1.57%	1.65%	8.63%	7.47%	<b>2.86%</b>
[326] refining of ferrous	2.62%	2.74%	2.32%	1.75%	2.17%	2.11%	1.97%	2.22%	<b>2.24%</b>
[319] other nonmetal mineral products	1.01%	0.99%	0.93%	0.79%	1.23%	1.34%	5.87%	5.46%	<b>2.20%</b>
[372] automobile	2.40%	2.97%	3.16%	1.97%	1.88%	1.70%	1.71%	1.57%	<b>2.17%</b>

[152] soft beverage	2.16%	2.23%	2.58%	2.21%	2.14%	2.10%	1.83%	1.91%	<b>2.15%</b>
[365] medical equipment	3.27%	3.06%	2.19%	1.68%	1.86%	2.11%	1.75%	1.08%	<b>2.12%</b>
[275+275] biological and animal medical	1.99%	2.19%	4.13%	1.14%	0.79%	1.42%	2.46%	2.06%	<b>2.02%</b>
[082] other ferrous mining	2.56%	1.61%	1.99%	2.84%	1.75%	1.61%	1.48%	1.22%	<b>1.88%</b>
[318] glass fiber products	1.47%	1.55%	1.98%	2.39%	2.61%	2.10%	1.55%	1.38%	<b>1.88%</b>
[442] supply of electric power	0.25%	1.36%	1.59%	1.90%	1.66%	2.97%	2.39%	2.34%	<b>1.81%</b>
[415] electronic parts	2.37%	2.69%	2.07%	1.97%	1.80%	0.93%	1.42%	1.13%	<b>1.80%</b>
[417] electronic commodity	0.75%	2.12%	2.41%	2.64%	1.72%	1.08%	1.40%	1.53%	<b>1.71%</b>
[374+375+373] cycle equipment	1.82%	1.91%	1.61%	1.78%	1.49%	1.50%	1.30%	1.51%	<b>1.61%</b>
[144] barmy producing	1.72%	1.46%	0.60%	1.17%	1.27%	1.53%	2.57%	1.70%	<b>1.50%</b>
[331] refining of heavy nonferrous	1.78%	1.50%	1.29%	1.31%	1.40%	1.50%	1.55%	1.26%	<b>1.45%</b>
[336+334~3]refining of alloy nonferrous	1.57%	1.35%	1.30%	1.49%	1.60%	1.63%	1.36%	1.02%	<b>1.41%</b>
[179] other textile	2.63%	1.59%	1.28%	1.01%	0.98%	1.72%	1.25%	0.88%	<b>1.42%</b>
[443] steam and hot water	1.34%	1.30%	0.86%	1.39%	1.49%	1.58%	1.50%	1.26%	<b>1.34%</b>
[143] canning producing	0.91%	1.26%	1.12%	0.99%	1.39%	1.70%	2.42%	1.37%	<b>1.39%</b>
[291] tyre products	1.74%	1.60%	1.60%	1.43%	1.05%	0.99%	0.84%	0.89%	<b>1.27%</b>
[364] agricultural equipment	1.03%	1.12%	1.18%	1.01%	1.14%	1.14%	1.50%	2.07%	<b>1.27%</b>
[317] carbon products	1.66%	1.37%	1.30%	0.86%	1.16%	1.04%	1.33%	1.05%	<b>1.22%</b>
[091] heavy metal mining	1.77%	1.72%	1.75%	0.49%	1.04%	0.98%	0.95%	0.70%	<b>1.17%</b>
[406] electric commodity equipment	0.49%	0.69%	1.04%	1.35%	1.55%	1.44%	1.61%	1.48%	<b>1.21%</b>
[332] refining of light nonferrous	1.39%	1.25%	1.02%	1.29%	1.19%	1.35%	1.09%	0.87%	<b>1.18%</b>
[081] ferrous mining	1.83%	1.26%	1.00%	2.22%	0.89%	0.87%	0.70%	0.60%	<b>1.17%</b>
[379~8] other transport equipment	1.08%	1.12%	1.05%	1.28%	0.96%	0.93%	1.69%	0.94%	<b>1.13%</b>
[145] condiment producing	3.03%	1.49%	0.97%	0.62%	0.62%	0.73%	1.04%	1.03%	<b>1.19%</b>
[268] chemical commodity products	1.72%	0.86%	1.20%	1.12%	0.78%	0.91%	0.99%	1.14%	<b>1.09%</b>
[422~5+428~9] special instruments machine	0.21%	1.12%	1.02%	0.88%	0.94%	1.11%	1.88%	1.40%	<b>1.07%</b>
[102] chemical minerals mining	1.36%	0.96%	0.94%	0.95%	0.91%	0.97%	1.13%	1.18%	<b>1.05%</b>
[271] chemical medical	0.46%	0.58%	0.76%	0.92%	1.41%	1.46%	1.38%	1.61%	<b>1.07%</b>
[142] dairy producing	0.67%	0.87%	0.71%	0.71%	0.76%	0.99%	1.36%	1.39%	<b>0.93%</b>
[149] other food producing	0.73%	1.16%	1.21%	0.36%	0.44%	0.85%	0.97%	1.60%	<b>0.92%</b>
[407] lighting equipment	0.95%	0.88%	1.03%	0.86%	0.90%	0.98%	0.93%	0.66%	<b>0.90%</b>
[426] horologe	0.46%	0.41%	0.44%	0.71%	1.11%	1.64%	1.89%	1.63%	<b>1.04%</b>
[139+136] other food processing	1.21%	1.04%	1.09%	1.18%	0.71%	0.67%	0.69%	0.61%	<b>0.90%</b>
[361] mining equipment	0.80%	0.74%	1.12%	0.78%	0.86%	0.78%	0.73%	0.70%	<b>0.81%</b>
[101] limestone mining	1.05%	0.77%	0.91%	0.61%	0.52%	0.57%	0.72%	0.86%	<b>0.75%</b>



[061] coal mining	0.81%	0.77%	0.64%	0.55%	0.58%	0.68%	0.82%	0.83%	<b>0.71%</b>
[354] axletree valv products	0.79%	0.55%	0.67%	0.68%	0.77%	0.75%	0.72%	0.68%	<b>0.70%</b>
[171] fibre raw material processing	0.47%	0.40%	0.53%	0.89%	0.90%	0.93%	0.83%	0.72%	<b>0.71%</b>
[461] production of tap water	1.24%	0.53%	1.03%	0.91%	0.61%	0.41%	0.40%	0.45%	<b>0.70%</b>
[176] hemp textile	0.46%	0.70%	0.62%	0.58%	0.94%	0.81%	0.78%	0.69%	<b>0.70%</b>
[299~7+292~5] other rubber products	0.62%	0.55%	0.65%	0.55%	0.73%	0.86%	0.79%	0.59%	<b>0.67%</b>
[316] fire-resistant products	0.48%	0.38%	0.49%	0.46%	0.70%	0.79%	1.18%	0.86%	<b>0.67%</b>
[273] Chinese medical	0.96%	0.74%	0.78%	0.64%	0.55%	0.40%	0.54%	0.62%	<b>0.65%</b>
[134] meat processing	0.36%	0.47%	0.49%	0.64%	0.72%	0.70%	0.91%	0.84%	<b>0.64%</b>
[141] candy production	1.30%	0.68%	0.65%	0.41%	0.45%	0.40%	0.48%	0.48%	<b>0.61%</b>
[263] chemical pesticide	0.59%	0.58%	0.53%	0.43%	0.46%	0.75%	0.64%	0.64%	<b>0.58%</b>
[367] others special equipment	0.56%	0.43%	0.41%	0.40%	0.75%	0.53%	0.56%	0.87%	<b>0.57%</b>
[135] fish processing	0.54%	0.53%	0.50%	0.42%	0.70%	0.47%	0.57%	0.66%	<b>0.55%</b>
[416] electronic elements	0.84%	0.52%	0.42%	0.51%	0.44%	0.48%	0.55%	0.49%	<b>0.53%</b>
[174] wool textile	0.41%	0.41%	0.53%	0.55%	0.68%	0.67%	0.59%	0.56%	<b>0.55%</b>
[095] costly metal mining	0.66%	0.38%	0.39%	0.53%	0.54%	0.51%	0.53%	0.78%	<b>0.54%</b>
[338] pressing of nonferrous	0.39%	0.36%	0.42%	0.32%	0.61%	0.68%	0.60%	0.57%	<b>0.49%</b>
[313] tile products	0.43%	0.53%	0.50%	0.47%	0.56%	0.49%	0.51%	0.38%	<b>0.48%</b>
[362] petrochemical equipment	0.47%	0.33%	0.32%	0.46%	0.58%	0.54%	0.56%	0.59%	<b>0.48%</b>
[421] general instruments machinery	0.23%	0.20%	0.25%	0.37%	0.45%	0.77%	0.60%	0.67%	<b>0.44%</b>
[401] electric machine	0.41%	0.35%	0.41%	0.43%	0.47%	0.45%	0.44%	0.41%	<b>0.42%</b>
[345] tightwire products	0.20%	0.25%	0.30%	0.38%	0.51%	0.39%	0.64%	0.65%	<b>0.41%</b>
[359~7] other ordinary mechinary	0.54%	0.43%	0.66%	0.36%	0.25%	0.27%	0.37%	0.45%	<b>0.41%</b>
[353] ordinary equipping	0.31%	0.26%	0.33%	0.40%	0.45%	0.46%	0.46%	0.45%	<b>0.39%</b>
[272] medical preparaing	0.35%	0.40%	0.44%	0.40%	0.41%	0.47%	0.31%	0.28%	<b>0.38%</b>
[109+110] other minerals mining	0.34%	0.35%	0.27%	0.33%	0.47%	0.42%	0.55%	0.25%	<b>0.37%</b>
[352] processing machinery	0.18%	0.21%	0.32%	0.39%	0.39%	0.55%	0.55%	0.37%	<b>0.37%</b>
[189+182+183] other fiber products	0.25%	0.19%	0.22%	0.22%	0.37%	0.40%	0.66%	0.45%	<b>0.35%</b>
[363] textile equipment	0.37%	0.27%	0.30%	0.30%	0.38%	0.42%	0.45%	0.45%	<b>0.37%</b>
[346] stuctural metal products	0.39%	0.27%	0.22%	0.34%	0.39%	0.40%	0.65%	0.22%	<b>0.36%</b>
[121] timber logging and transport	0.25%	0.24%	0.27%	0.33%	0.39%	0.44%	0.45%	0.43%	<b>0.35%</b>
[402] transformer equipment	0.53%	0.47%	0.40%	0.28%	0.24%	0.28%	0.29%	0.28%	<b>0.35%</b>
[132] vegetable oil processing	0.45%	0.56%	0.31%	0.23%	0.31%	0.21%	0.29%	0.30%	<b>0.33%</b>
[178] knit fabric	0.21%	0.26%	0.74%	0.25%	0.30%	0.30%	0.26%	0.27%	<b>0.33%</b>
[267] special chemical products	0.35%	0.24%	0.27%	0.31%	0.32%	0.41%	0.33%	0.41%	<b>0.33%</b>

[103] salt mining	0.60%	0.40%	0.32%	0.23%	0.26%	0.24%	0.23%	0.26%	<b>0.32%</b>
[302] panel plastic	0.18%	0.30%	0.37%	0.29%	0.34%	0.33%	0.32%	0.34%	<b>0.31%</b>
[303] silk plastic	0.17%	0.21%	0.24%	0.27%	0.30%	0.32%	1.04%	0.24%	<b>0.35%</b>
[351] boiler gas engine	0.29%	0.26%	0.25%	0.25%	0.27%	0.28%	0.31%	0.49%	<b>0.30%</b>
[151] alcohol producing	0.14%	0.14%	0.19%	0.18%	0.28%	0.36%	0.50%	0.64%	<b>0.30%</b>
[261] basic raw chemical	0.28%	0.25%	0.26%	0.32%	0.30%	0.29%	0.23%	0.23%	<b>0.27%</b>
[312] finished cement products	0.24%	0.43%	0.39%	0.37%	0.21%	0.22%	0.10%	0.10%	<b>0.26%</b>
[191] leathermaking	0.07%	0.12%	0.17%	0.21%	0.29%	0.32%	0.58%	0.55%	<b>0.29%</b>
[356] others ordinary accessory	0.15%	0.19%	0.15%	0.20%	0.24%	0.28%	0.29%	0.35%	<b>0.23%</b>
[304] foam plastic	0.18%	0.17%	0.16%	0.19%	0.22%	0.26%	0.34%	0.30%	<b>0.23%</b>
[219+212~4] other furniture	0.22%	0.21%	0.32%	0.20%	0.24%	0.22%	0.15%	0.15%	<b>0.21%</b>
[177] silk textile	0.14%	0.15%	0.17%	0.14%	0.17%	0.23%	0.36%	0.43%	<b>0.22%</b>
[441] production of electric Power	0.21%	0.22%	0.15%	0.23%	0.14%	0.17%	0.11%	0.13%	<b>0.17%</b>
[344] metal container products	0.21%	0.13%	0.17%	0.18%	0.15%	0.17%	0.15%	0.15%	<b>0.16%</b>
[301] film plastic	0.09%	0.09%	0.09%	0.10%	0.15%	0.14%	0.28%	0.36%	<b>0.16%</b>
[201+202+203+204] lumber processing	0.13%	0.14%	0.26%	0.13%	0.12%	0.11%	0.14%	0.14%	<b>0.15%</b>
[404] electric cable	0.12%	0.14%	0.13%	0.13%	0.13%	0.14%	0.20%	0.15%	<b>0.14%</b>
[309~5] others plastic products	0.21%	0.14%	0.11%	0.13%	0.20%	0.18%	0.13%	0.07%	<b>0.15%</b>
[262] chemical fertilizer	0.15%	0.11%	0.12%	0.11%	0.15%	0.23%	0.08%	0.13%	<b>0.14%</b>
[343] instrument products	0.07%	0.05%	0.06%	0.08%	0.12%	0.13%	0.31%	0.29%	<b>0.14%</b>
[241~5+249] cultural sports products	0.07%	0.12%	0.13%	0.13%	0.15%	0.12%	0.12%	0.11%	<b>0.12%</b>
[349+341~2+347] others metal products	0.18%	0.12%	0.10%	0.09%	0.11%	0.12%	0.10%	0.09%	<b>0.11%</b>
[314] glass products	0.14%	0.12%	0.10%	0.12%	0.10%	0.10%	0.08%	0.09%	<b>0.11%</b>
[211] timber furniture	0.12%	0.13%	0.14%	0.14%	0.06%	0.08%	0.08%	0.11%	<b>0.11%</b>
[315] chinaware	0.08%	0.10%	0.11%	0.14%	0.12%	0.10%	0.09%	0.09%	<b>0.10%</b>
[222+221+223] papermaking	0.04%	0.04%	0.04%	0.05%	0.08%	0.09%	0.15%	0.22%	<b>0.09%</b>
[348] metal commodity	0.09%	0.06%	0.05%	0.07%	0.09%	0.10%	0.10%	0.10%	<b>0.08%</b>
[133] sugar processing	0.04%	0.04%	0.04%	0.04%	0.07%	0.09%	0.15%	0.18%	<b>0.08%</b>
[231+232] printing and record medium	0.04%	0.05%	0.06%	0.07%	0.08%	0.08%	0.12%	0.07%	<b>0.07%</b>
[131] food processing	0.06%	0.07%	0.07%	0.09%	0.05%	0.07%	0.10%	0.08%	<b>0.07%</b>
[192+193+195] leather,furs products	0.03%	0.05%	0.06%	0.07%	0.10%	0.09%	0.11%	0.08%	<b>0.07%</b>
[181] garments products	0.03%	0.04%	0.04%	0.04%	0.06%	0.04%	0.07%	0.06%	<b>0.05%</b>
[172] cotton textile	0.02%	0.03%	0.02%	0.02%	0.04%	0.04%	0.05%	0.07%	<b>0.04%</b>
[311] cement products	0.03%	0.04%	0.04%	0.04%	0.02%	0.02%	0.02%	0.02%	<b>0.03%</b>
[431+435+439] craftwork manufacturing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	<b>0.00%</b>

$$Ind3Concentration = \sum_{j=top1}^{top10} \left[ \frac{sales_j}{Ind3Sales} \right]^2$$

**Table 1.6 Market Share of Foreign Invested Enterprises at the Level of 2-Digit Industries**

IND2	1995	1996	1997	1998	1999	2000	2001	2002	Average
[41]Electronic and Telecom	10.67%	13.06%	14.24%	19.36%	25.00%	26.28%	37.20%	39.36%	24.38%
[24]Cultural	8.62%	10.80%	10.59%	19.55%	27.74%	28.10%	34.89%	37.62%	23.85%
[19]Leather	5.57%	9.42%	12.10%	14.07%	18.70%	21.51%	26.79%	30.94%	16.66%
[21]Furniture	5.12%	7.61%	10.14%	10.64%	10.04%	12.16%	19.47%	26.73%	13.44%
[30]Plastic	3.82%	5.68%	7.34%	8.80%	12.40%	14.52%	20.66%	24.98%	12.66%
[14]Food Production	5.10%	7.29%	8.96%	10.71%	10.54%	12.59%	16.71%	18.73%	11.37%
[34]Metal Products	4.40%	4.83%	7.32%	8.55%	10.67%	12.95%	17.93%	20.97%	11.03%
[18]Garments	7.66%	7.14%	7.53%	8.25%	10.65%	11.29%	15.10%	15.29%	10.59%
[42]Instruments	1.43%	3.67%	6.35%	9.31%	10.47%	10.92%	17.95%	21.32%	10.10%
[20]Timber	3.70%	8.66%	8.31%	8.45%	10.18%	11.65%	7.59%	9.16%	8.62%
[43]Other Manufacturing	0.49%	1.07%	2.17%	2.38%	4.44%	4.28%	14.69%	18.16%	6.13%
[40]Electric Equipment	2.45%	3.81%	4.25%	4.83%	6.09%	7.16%	9.08%	9.60%	5.92%
[15]Beverage	3.69%	4.46%	4.98%	5.59%	5.59%	6.49%	8.29%	8.17%	5.86%
[29]Rubber	1.46%	1.54%	2.36%	4.13%	5.03%	6.09%	8.87%	11.41%	4.88%
[22]Papermaking	0.92%	1.43%	1.76%	3.26%	4.18%	5.12%	9.51%	10.51%	4.51%
[23]Printing	0.94%	1.53%	2.04%	2.99%	3.43%	4.41%	8.63%	10.01%	4.45%
[37]Transport Equipment	1.28%	2.06%	2.60%	3.34%	4.63%	5.39%	7.21%	7.62%	4.39%
[13]Food Processing	1.77%	2.41%	2.51%	3.66%	3.68%	4.39%	6.29%	7.15%	3.90%
[28]Chemical Fiber	0.50%	0.90%	0.91%	4.46%	5.22%	6.39%	4.08%	5.58%	3.42%
[27]Medical	1.47%	1.74%	2.14%	2.38%	3.01%	3.30%	3.85%	3.90%	2.80%
[31]Nonmetal Products	1.20%	1.54%	1.59%	1.66%	2.00%	2.32%	4.09%	4.44%	2.35%
[35]Ordinary Machinery	0.74%	1.11%	1.21%	1.74%	2.36%	2.60%	3.91%	4.78%	2.26%
[26]Raw Chemical	0.46%	0.79%	0.97%	1.40%	1.79%	2.19%	3.28%	3.71%	1.81%
[17]Textile	0.46%	0.72%	0.99%	1.21%	1.59%	1.82%	2.89%	3.06%	1.43%
[33]Pressing of Nonferrous	0.48%	0.46%	0.65%	0.83%	1.00%	1.20%	1.46%	1.60%	0.98%
[44]Electric Power	0.41%	0.48%	0.63%	0.63%	0.88%	0.90%	1.07%	1.24%	0.79%
[36]Special Equipment	0.14%	0.18%	0.27%	0.39%	0.67%	0.82%	1.28%	1.82%	0.65%
[45]Gas Production	0.03%	0.01%	0.01%	0.05%	0.03%	0.50%	0.87%	2.17%	0.54%
[32]Pressing Ferrous	0.13%	0.13%	0.09%	0.16%	0.33%	0.44%	0.89%	0.86%	0.36%
[25]Petroleum Processing	0.01%	0.03%	0.08%	0.13%	0.21%	0.30%	0.37%	0.81%	0.26%
[07]Petroleum Extraction	0.00%	0.17%	0.16%	0.00%	0.00%	0.06%	0.21%	0.22%	0.11%
[10]Nonmetal Mining	0.00%	0.01%	0.01%	0.01%	0.04%	0.06%	0.08%	0.06%	0.03%
[46]Tap Water	0.00%	0.00%	0.00%	0.00%	0.02%	0.01%	0.02%	0.04%	0.01%

[16]Tobacco	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%
[06]Coal Mining	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
[08]Ferrous Mining	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
[09]Nonferrous Mining	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
[12]Timber Logging	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
All	1.79%	2.46%	2.96%	3.80%	4.78%	5.46%	8.13%	9.40%	4.81%

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**Table 1.7 Price Index for Gross Output and Value Added (1990 Price = 1)**

<b>IND2</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
[07]Petroleum Extraction	4.229	4.423	4.751	4.418	4.842	6.987	6.924	6.592
[25]Petroleum Processing	4.229	4.423	4.751	4.418	4.842	6.987	6.924	6.592
[45]Gas Production	4.229	4.423	4.751	4.418	4.842	6.987	6.924	6.592
[44]Electric Power	2.64	2.986	3.404	3.592	3.624	3.711	3.796	3.826
[46]Tap Water	2.64	2.986	3.404	3.592	3.624	3.711	3.796	3.826
[06]Coal Mining	2.495	2.837	3.064	2.96	2.806	2.752	2.931	3.271
[19]Leather	2.039	2.27	2.231	2.193	2.123	2.127	2.144	2.129
[32]Pressing Ferrous	2.317	2.264	2.203	2.051	1.965	2.03	2.001	1.953
[33]Pressing of Nonferrous	2.317	2.264	2.203	2.051	1.965	2.03	2.001	1.953
[08]Ferrous Mining	1.931	1.987	1.981	1.9	1.854	1.906	1.881	1.84
[09]Nonferrous Mining	1.931	1.987	1.981	1.9	1.854	1.906	1.881	1.84
[10]Nonmetal Mining	1.931	1.987	1.981	1.9	1.854	1.906	1.881	1.84
[15]Beverage	1.931	1.987	1.981	1.9	1.854	1.906	1.881	1.84
[16]Tobacco	1.931	1.987	1.981	1.9	1.854	1.906	1.881	1.84
[21]Furniture	1.931	1.987	1.981	1.9	1.854	1.906	1.881	1.84
[40]Electric Equipment	1.931	1.987	1.981	1.9	1.854	1.906	1.881	1.84
[41]Electronic and Telecom	1.931	1.987	1.981	1.9	1.854	1.906	1.881	1.84
[42]Instruments	1.931	1.987	1.981	1.9	1.854	1.906	1.881	1.84
[18]Garments	1.752	1.896	1.97	1.924	1.886	1.875	1.86	1.835
[31]Nonmetal Products	1.927	2.01	2.002	1.934	1.889	1.882	1.863	1.822
[13]Food Processing	1.893	1.972	1.965	1.937	1.873	1.794	1.804	1.796
[14]Food Production	1.893	1.972	1.965	1.937	1.873	1.794	1.804	1.796
[22]Papermaking	1.773	2.058	1.945	1.83	1.755	1.753	1.748	1.711
[17]Textile	1.722	1.653	1.62	1.524	1.463	1.532	1.512	1.432
[26]Raw Chemical	1.659	1.715	1.638	1.522	1.468	1.483	1.44	1.406
[27]Medical	1.659	1.715	1.638	1.522	1.468	1.483	1.44	1.406
[28]Chemical Fiber	1.659	1.715	1.638	1.522	1.468	1.483	1.44	1.406
[29]Rubber	1.659	1.715	1.638	1.522	1.468	1.483	1.44	1.406
[30]Plastic	1.659	1.715	1.638	1.522	1.468	1.483	1.44	1.406
[12]Timber Logging	1.49	1.464	1.454	1.387	1.388	1.377	1.371	1.352
[20]Timber	1.49	1.464	1.454	1.387	1.388	1.377	1.371	1.352
[34]Metal Products	1.527	1.551	1.522	1.476	1.432	1.395	1.35	1.299
[35]Ordinary Machinery	1.527	1.551	1.522	1.476	1.432	1.395	1.35	1.299
[36]Special Equipment	1.527	1.551	1.522	1.476	1.432	1.395	1.35	1.299
[37]Transport Equipment	1.527	1.551	1.522	1.476	1.432	1.395	1.35	1.299
[23]Printing	1.455	1.477	1.477	1.394	1.305	1.294	1.267	1.234
[24]Cultural	1.455	1.477	1.477	1.394	1.305	1.294	1.267	1.234
[43]Other Manufacturing	1.455	1.477	1.477	1.394	1.305	1.294	1.267	1.234
All	1.827	1.88	1.875	1.816	1.781	1.823	1.807	1.775

**Table 1.8 Price Index for Intermediate Inputs (1990 Price = 1)**

<b>IND2</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
[46]Tap Water	2.618	3.027	3.219	3.356	3.577	3.638	4.116	4.038
[07]Petroleum Extraction	2.511	2.704	2.913	2.809	2.984	4.165	3.803	3.791
[44]Electric Power	2.641	2.806	3.339	3.145	3.323	3.279	3.306	3.282
[25]Petroleum Processing	2.371	2.448	2.559	2.351	2.484	3.648	3.185	3.114
[16]Tobacco	2.611	2.879	2.855	3.033	2.779	2.799	3.242	3.095
[32]Pressing Ferrous	2.167	2.259	2.337	2.222	2.476	3.368	2.891	2.84
[06]Coal Mining	2.244	2.445	2.589	2.587	2.46	2.641	2.722	2.819
[31]NonmetalProducts	2.066	2.146	2.223	2.152	2.242	3.305	2.828	2.768
[33]Pressing of Nonferrous	2.116	2.147	2.217	2.118	2.227	3.328	2.81	2.746
[45]Gas Production	2.079	2.273	2.421	2.375	2.409	2.729	2.652	2.609
[15]Beverage	2.226	2.459	2.548	2.461	2.378	2.512	2.534	2.495
[08]Ferrous Mining	2.006	2.154	2.25	2.335	2.225	2.415	2.449	2.451
[13]Food Processing	2.251	2.495	2.573	2.402	2.254	2.39	2.391	2.341
[19]Leather	2.075	2.29	2.359	2.275	2.179	2.358	2.361	2.315
[26]Raw Chemical	1.874	1.936	1.975	1.863	1.93	2.751	2.348	2.315
[14]Food Production	2.109	2.307	2.381	2.319	2.211	2.367	2.364	2.312
[12]Timber Logging	1.81	1.922	2.039	2.01	2.018	2.222	2.24	2.284
[10]Nonmetal Mining	1.811	1.943	2.055	2.057	2.029	2.232	2.234	2.277
[09]Nonferrous Mining	1.975	2.065	2.157	2.046	2.013	2.242	2.235	2.237
[24]Cultural	1.7	1.845	1.95	1.919	1.956	2.17	2.179	2.17
[23]Printing	1.834	1.901	1.974	1.929	1.944	2.105	2.03	2.016
[22]Papermaking	1.847	1.923	1.966	1.911	1.908	2.028	2.029	2.008
[21]Furniture	1.78	1.864	1.944	1.9	1.888	1.997	2.004	1.999
[18]Garments	1.884	1.927	1.953	1.895	1.88	2.036	2.018	1.998
[20]Timber	1.836	1.889	1.942	1.88	1.888	1.99	2	1.987
[17]Textile	1.914	1.897	1.902	1.827	1.797	1.93	1.922	1.894
[43]Other Manufacturing	1.948	1.937	1.923	1.809	1.772	1.902	1.893	1.873
[34]Metal Products	1.965	1.95	1.946	1.835	1.791	1.923	1.901	1.868
[36]Special Equipment	1.965	1.952	1.939	1.827	1.784	1.913	1.894	1.866
[35]Ordinary Machinery	1.962	1.953	1.938	1.827	1.786	1.91	1.891	1.858
[42]Instruments	1.932	1.912	1.911	1.822	1.77	1.901	1.879	1.854
[37]Transport Equipment	1.962	1.946	1.933	1.821	1.78	1.907	1.885	1.852
[40]Electric Equipment	1.931	1.925	1.916	1.806	1.766	1.889	1.869	1.837
[41]Electronic and Telecom	1.921	1.903	1.893	1.78	1.737	1.864	1.848	1.826
[30]Plastic	1.103	1.066	1.002	0.972	0.966	1.001	0.994	1.006
[29]Rubber	0.989	1.007	0.996	0.949	0.944	0.94	0.995	0.964
[27]Medical	1.018	0.994	0.976	0.948	0.922	0.893	0.877	0.844
[28]Chemical Fiber	1.347	1.078	0.982	0.935	0.935	1.083	0.887	0.819
Total	1.955	2.001	2.044	1.957	1.955	2.24	2.144	2.107

**Table 1.9 Price Index for Output, Capital and Intermediate Inputs (1990 Price =1)**

<b>YEAR</b>	<b>for Gross Output and Value Added</b>	<b>for Fixed Capital</b>	<b>for Intermediate Inputs</b>
1995	1.827	1.869	1.955
1996	1.880	1.944	2.001
1997	1.875	1.976	2.044
1998	1.816	1.973	1.957
1999	1.781	1.965	1.955
2000	1.823	1.986	2.240
2001	1.807	1.994	2.144
2002	1.775	1.998	2.107



**Table 1.10 Average Performance of NE Enterprises during 1995-2002 Relative to Others by Industry (Ranked by Productivity)**

Ind2	Y/L (1000 yuan/person)			VA/L (1000 yuan/person)			OP/TA (%)			IP/TA (%)		
	NE	Others	NE/Others	NE	Others	NE/Others	NE	Others	NE - Others	NE	Others	NE - Others
[14]Food Production	109	99	111%	33	26	129%	-1.60%	0.00%	-1.60%	7.40%	9.10%	-1.70%
[25]Petroleum Processing	129	89	145%	24	19	124%	0.30%	0.50%	-0.20%	12.80%	11.40%	1.40%
[10]Nonmetal Mining	31	26	118%	11	10	103%	-0.70%	0.10%	-0.80%	4.00%	4.90%	-0.90%
[21]Furniture	69	81	85%	21	22	96%	1.00%	0.90%	0.10%	9.40%	9.10%	0.30%
[29]Rubber	66	79	84%	19	21	94%	-1.70%	-0.20%	-1.50%	3.10%	8.60%	-5.50%
[27]Medical	89	135	66%	37	46	82%	1.30%	2.50%	-1.20%	10.60%	12.30%	-1.70%
[30]Plastic	107	142	75%	29	35	81%	-1.30%	0.40%	-1.70%	4.10%	7.80%	-3.70%
[37]Transport Equipment	96	127	76%	26	34	78%	-1.30%	-0.10%	-1.20%	3.10%	5.60%	-2.50%
[13]Food Processing	125	150	83%	20	27	73%	-3.30%	-1.20%	-2.10%	5.90%	11.00%	-5.10%
[12]Timber Logging	10	13	76%	5	7	71%	1.50%	-0.60%	2.10%	1.90%	3.60%	-1.70%
[31]Nonmetal Products	44	56	79%	12	17	71%	-1.60%	-0.60%	-1.00%	3.20%	6.30%	-3.10%
[34]Metal Products	103	141	73%	22	32	69%	-2.00%	0.00%	-2.00%	2.60%	7.60%	-5.00%
[09]Nonferrous Mining	27	32	84%	8	12	63%	-3.40%	-0.20%	-3.20%	-0.90%	3.30%	-4.20%
[15]Beverage	60	105	57%	21	35	61%	-0.60%	0.40%	-1.00%	13.80%	13.90%	-0.10%
[35]Ordinary Machinery	45	74	61%	13	21	60%	-2.10%	-0.30%	-1.80%	1.30%	4.80%	-3.50%
[44]Electric Power	60	93	65%	27	46	59%	0.90%	3.70%	-2.80%	5.30%	8.50%	-3.20%
[41]Electronic and Telecom	121	216	56%	27	46	58%	-0.90%	0.80%	-1.70%	3.40%	7.20%	-3.80%
[20]Timber	78	137	57%	18	34	54%	-3.60%	-1.00%	-2.60%	2.20%	6.30%	-4.10%
[33]Pressing of Nonferrous	68	133	51%	14	26	53%	-2.10%	0.10%	-2.20%	2.50%	7.90%	-5.40%
[18]Garments	40	69	57%	9	17	53%	-1.80%	1.80%	-3.60%	4.90%	13.60%	-8.70%
[26]Raw Chemical	78	140	56%	18	35	52%	-1.90%	0.70%	-2.60%	2.60%	8.10%	-5.50%
[46]Tap Water	15	30	51%	7	14	50%	-1.20%	0.10%	-1.30%	1.60%	2.40%	-0.80%
[40]Electric Equipment	58	120	48%	14	28	49%	-1.20%	0.90%	-2.10%	3.70%	8.80%	-5.10%
[24]Cultural	53	108	49%	13	27	47%	-1.40%	2.30%	-3.70%	0.20%	9.70%	-9.50%
[22]Papermaking	42	86	49%	11	23	47%	-1.30%	0.90%	-2.20%	4.80%	9.80%	-5.00%
[23]Printing	43	103	42%	17	36	46%	-0.30%	0.90%	-1.20%	3.40%	5.70%	-2.30%
[36]Special Equipment	35	69	50%	9	19	46%	-3.40%	-0.70%	-2.70%	-0.60%	4.10%	-4.70%
[17]Textile	34	66	51%	7	15	44%	-3.30%	-1.60%	-1.70%	0.50%	6.70%	-6.20%
[32]Pressing Ferrous	68	130	52%	11	26	43%	-1.70%	-0.30%	-1.40%	2.10%	6.10%	-4.00%
[42]Instruments	27	74	37%	8	19	41%	-1.90%	-0.60%	-1.30%	1.10%	3.00%	-1.90%
[16]Tobacco	129	263	49%	65	162	40%	-0.50%	2.20%	-2.70%	28.20%	34.40%	-6.20%
[06]Coal Mining	7	13	52%	3	7	40%	-4.80%	0.20%	-5.00%	-4.00%	3.10%	-7.10%
[45]Gas Production	10	39	24%	3	8	38%	-5.20%	-4.90%	-0.30%	-4.30%	-2.80%	-1.50%
[08]Ferrous Mining	16	34	48%	5	13	37%	-1.20%	0.40%	-1.60%	-0.90%	4.10%	-5.00%
[19]Leather	30	71	42%	5	16	32%	-6.70%	0.10%	-6.80%	0.70%	10.80%	-10.10%
[28]Chemical Fiber	64	170	38%	11	36	30%	-1.90%	0.10%	-2.00%	0.70%	6.50%	-5.80%
[07]Petroleum Extraction	46	383	12%	35	235	15%	13.60%	9.90%	3.70%	21.70%	16.20%	5.50%

**Table 1.11 Average Performance of NE Enterprises during 1995-2002 Relative to Others by Industry (Ranked by Profitability)**

Ind2	Y/L (1000 yuan/person)			VA/L (1000 yuan/person)			OP/TA (%)			IP/TA (%)		
	NE	Others	NE/Others	NE	Others	NE/Others	NE	Others	NE - Others	NE	Others	NE - Others
[07]Petroleum Extraction	46	383	12%	35	235	15%	13.60%	9.90%	3.70%	21.70%	16.20%	5.50%
[25]Petroleum Processing	129	89	145%	24	19	124%	0.30%	0.50%	-0.20%	12.80%	11.40%	1.40%
[21]Furniture	69	81	85%	21	22	96%	1.00%	0.90%	0.10%	9.40%	9.10%	0.30%
[15]Beverage	60	105	57%	21	35	61%	-0.60%	0.40%	-1.00%	13.80%	13.90%	-0.10%
[46]Tap Water	15	30	51%	7	14	50%	-1.20%	0.10%	-1.30%	1.60%	2.40%	-0.80%
[10]Nonmetal Mining	31	26	118%	11	10	103%	-0.70%	0.10%	-0.80%	4.00%	4.90%	-0.90%
[45]Gas Production	10	39	24%	3	8	38%	-5.20%	-4.90%	-0.30%	-4.30%	-2.80%	-1.50%
[12]Timber Logging	10	13	76%	5	7	71%	1.50%	-0.60%	2.10%	1.90%	3.60%	-1.70%
[14]Food Production	109	99	111%	33	26	129%	-1.60%	0.00%	-1.60%	7.40%	9.10%	-1.70%
[27]Medical	89	135	66%	37	46	82%	1.30%	2.50%	-1.20%	10.60%	12.30%	-1.70%
[42]Instruments	27	74	37%	8	19	41%	-1.90%	-0.60%	-1.30%	1.10%	3.00%	-1.90%
[23]Printing	43	103	42%	17	36	46%	-0.30%	0.90%	-1.20%	3.40%	5.70%	-2.30%
[37]Transport Equipment	96	127	76%	26	34	78%	-1.30%	-0.10%	-1.20%	3.10%	5.60%	-2.50%
[31]Nonmetal Products	44	56	79%	12	17	71%	-1.60%	-0.60%	-1.00%	3.20%	6.30%	-3.10%
[44]Electric Power	60	93	65%	27	46	59%	0.90%	3.70%	-2.80%	5.30%	8.50%	-3.20%
[35]Ordinary Machinery	45	74	61%	13	21	60%	-2.10%	-0.30%	-1.80%	1.30%	4.80%	-3.50%
[30]Plastic	107	142	75%	29	35	81%	-1.30%	0.40%	-1.70%	4.10%	7.80%	-3.70%
[41]Electronic and Telecom	121	216	56%	27	46	58%	-0.90%	0.80%	-1.70%	3.40%	7.20%	-3.80%
[32]Pressing Ferrous	68	130	52%	11	26	43%	-1.70%	-0.30%	-1.40%	2.10%	6.10%	-4.00%
[20]Timber	78	137	57%	18	34	54%	-3.60%	-1.00%	-2.60%	2.20%	6.30%	-4.10%
[09]Nonferrous Mining	27	32	84%	8	12	63%	-3.40%	-0.20%	-3.20%	-0.90%	3.30%	-4.20%
[36]Special Equipment	35	69	50%	9	19	46%	-3.40%	-0.70%	-2.70%	-0.60%	4.10%	-4.70%
[34]Metal Products	103	141	73%	22	32	69%	-2.00%	0.00%	-2.00%	2.60%	7.60%	-5.00%
[22]Papermaking	42	86	49%	11	23	47%	-1.30%	0.90%	-2.20%	4.80%	9.80%	-5.00%
[08]Ferrous Mining	16	34	48%	5	13	37%	-1.20%	0.40%	-1.60%	-0.90%	4.10%	-5.00%
[40]Electric Equipment	58	120	48%	14	28	49%	-1.20%	0.90%	-2.10%	3.70%	8.80%	-5.10%
[13]Food Processing	125	150	83%	20	27	73%	-3.30%	-1.20%	-2.10%	5.90%	11.00%	-5.10%
[33]Pressing of Nonferrous	68	133	51%	14	26	53%	-2.10%	0.10%	-2.20%	2.50%	7.90%	-5.40%
[29]Rubber	66	79	84%	19	21	94%	-1.70%	-0.20%	-1.50%	3.10%	8.60%	-5.50%
[26]Raw Chemical	78	140	56%	18	35	52%	-1.90%	0.70%	-2.60%	2.60%	8.10%	-5.50%
[28]Chemical Fiber	64	170	38%	11	36	30%	-1.90%	0.10%	-2.00%	0.70%	6.50%	-5.80%
[16]Tobacco	129	263	49%	65	162	40%	-0.50%	2.20%	-2.70%	28.20%	34.40%	-6.20%
[17]Textile	34	66	51%	7	15	44%	-3.30%	-1.60%	-1.70%	0.50%	6.70%	-6.20%
[06]Coal Mining	7	13	52%	3	7	40%	-4.80%	0.20%	-5.00%	-4.00%	3.10%	-7.10%
[18]Garments	40	69	57%	9	17	53%	-1.80%	1.80%	-3.60%	4.90%	13.60%	-8.70%
[24]Cultural	53	108	49%	13	27	47%	-1.40%	2.30%	-3.70%	0.20%	9.70%	-9.50%

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[19]Leather	30	71	42%	5	16	32%	-6.70%	0.10%	-6.80%	0.70%	10.80%	-10.10%
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**Table 1.12 Factor Intensity of NE Enterprises Relative to Other Enterprises (Ranked by Production Fixed Capital)**

IND2	Kp/L (1000 yuan/person)			Kf/L (1000 yuan/person)			M/L (1000 yuan/person)		
	NE	Others	NE/Others	NE	Others	NE/Others	NE	Others	NE/Others
[25]Petroleum Processing	242	151	160%	27	25	109%	218	145	150%
[29]Rubber	43	37	115%	9	7	122%	78	95	83%
[14]Food Production	78	70	112%	15	15	97%	65	63	103%
[09]Nonferrous Mining	38	34	111%	11	11	100%	18	19	95%
[13]Food Processing	65	62	104%	14	14	100%	84	98	85%
[20]Timber	85	86	100%	19	18	104%	45	78	58%
[26]Raw Chemical	75	76	99%	15	14	105%	44	77	58%
[18]Garments	24	25	96%	5	6	76%	30	51	58%
[41]Electronic and Telecom	71	74	95%	13	15	90%	99	180	55%
[37]Transport Equipment	49	51	95%	12	12	99%	55	73	75%
[21]Furniture	44	49	90%	8	12	70%	49	61	80%
[35]Ordinary Machinery	33	37	89%	10	9	107%	26	42	62%
[31]NonmetalProducts	56	64	88%	14	12	111%	27	32	84%
[08]Ferrous Mining	31	36	86%	8	12	69%	11	19	56%
[10]Nonmetal Mining	32	37	85%	10	12	89%	20	16	124%
[34]Metal Products	58	68	85%	11	13	87%	63	84	74%
[19]Leather	28	34	83%	6	8	71%	24	53	45%
[36]Special Equipment	26	31	83%	10	9	108%	21	40	52%
[17]Textile	31	37	83%	8	7	106%	23	43	54%
[24]Cultural	28	34	82%	6	8	83%	29	55	52%
[42]Instruments	30	38	80%	11	10	111%	21	58	35%
[33]Pressing of Nonferrous	59	75	80%	14	14	105%	47	90	52%
[40]Electric Equipment	45	57	80%	11	11	95%	47	98	48%
[06]Coal Mining	20	26	78%	9	8	110%	5	9	62%
[27]Medical	42	56	76%	10	12	88%	95	161	59%
[30]Plastic	65	87	75%	14	14	101%	120	168	72%
[15]Beverage	53	71	74%	11	14	76%	33	60	56%
[22]Papermaking	45	64	71%	12	12	98%	31	61	51%
[32]Pressing Ferrous	59	87	68%	13	15	83%	49	85	57%
[44]Electric Power	359	527	68%	43	58	75%	44	64	69%
[16]Tobacco	75	122	61%	18	26	68%	55	90	61%
[28]Chemical Fiber	85	140	61%	10	17	60%	86	218	39%
[12]Timber Logging	8	14	60%	6	10	61%	4	5	75%
[23]Printing	41	74	56%	12	15	79%	20	48	41%
[46]Tap Water	93	180	52%	18	28	63%	9	17	53%
[45]Gas Production	78	167	47%	14	25	55%	16	79	20%
[07]Petroleum Extraction	254	826	31%	36	105	34%	27	305	9%

**Table 1.13 Factor Intensity of NE Enterprises Relative to Other Enterprises (Ranked by Intermediate Input)**

Ind2	Kp/L (1000 yuan/person)			Kf/L (1000 yuan/person)			M/L (1000 yuan/person)		
	NE	Others	NE/Others	NE	Others	NE/Others	NE	Others	NE/Others
[07]Petroleum Extraction	254	826	31%	36	105	34%	27	305	9%
[45]Gas Production	78	167	47%	14	25	55%	16	79	20%
[42]Instruments	30	38	80%	11	10	111%	21	58	35%
[28]Chemical Fiber	85	140	61%	10	17	60%	86	218	39%
[23]Printing	41	74	56%	12	15	79%	20	48	41%
[19]Leather	28	34	83%	6	8	71%	24	53	45%
[40]Electric Equipment	45	57	80%	11	11	95%	47	98	48%
[22]Papermaking	45	64	71%	12	12	98%	31	61	51%
[33]Pressing of Nonferrous	59	75	80%	14	14	105%	47	90	52%
[24]Cultural	28	34	82%	6	8	83%	29	55	52%
[36]Special Equipment	26	31	83%	10	9	108%	21	40	52%
[46]Tap Water	93	180	52%	18	28	63%	9	17	53%
[17]Textile	31	37	83%	8	7	106%	23	43	54%
[41]Electronic and Telecom	71	74	95%	13	15	90%	99	180	55%
[15]Beverage	53	71	74%	11	14	76%	33	60	56%
[08]Ferrous Mining	31	36	86%	8	12	69%	11	19	56%
[32]Pressing Ferrous	59	87	68%	13	15	83%	49	85	57%
[26]Raw Chemical	75	76	99%	15	14	105%	44	77	58%
[20]Timber	85	86	100%	19	18	104%	45	78	58%
[18]Garments	24	25	96%	5	6	76%	30	51	58%
[27]Medical	42	56	76%	10	12	88%	95	161	59%
[16]Tobacco	75	122	61%	18	26	68%	55	90	61%
[35]Ordinary Machinery	33	37	89%	10	9	107%	26	42	62%
[06]Coal Mining	20	26	78%	9	8	110%	5	9	62%
[44]Electric Power	359	527	68%	43	58	75%	44	64	69%
[30]Plastic	65	87	75%	14	14	101%	120	168	72%
[34]Metal Products	58	68	85%	11	13	87%	63	84	74%
[12]Timber Logging	8	14	60%	6	10	61%	4	5	75%
[37]Transport Equipment	49	51	95%	12	12	99%	55	73	75%
[21]Furniture	44	49	90%	8	12	70%	49	61	80%
[29]Rubber	43	37	115%	9	7	122%	78	95	83%
[31]NonmetalProducts	56	64	88%	14	12	111%	27	32	84%
[13]Food Processing	65	62	104%	14	14	100%	84	98	85%
[09]Nonferrous Mining	38	34	111%	11	11	100%	18	19	95%
[14]Food Production	78	70	112%	15	15	97%	65	63	103%

[10]Nonmetal Mining	32	37	85%	10	12	89%	20	16	124%
[25]Petroleum Processing	242	151	160%	27	25	109%	218	145	150%

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**Table 2.1 Number of Firms by Profitability and Year for Liaoning, Jilin, Heilongjiang, and the Whole Sample**

				YEAR								
				1995	1996	1997	1998	1999	2000	2001	2002	
Profitability	[-4] -M-W-FC-D-T	Count	Region	Liaoning	149	137	129	91	31	23	26	25
				Jilin	63	30	37	36	23	19	18	12
				Heilongjiang	48	72	57	52	35	21	13	12
				Total	867	1006	969	901	569	458	450	602
		% within Region	Region	Liaoning	9.60%	9.50%	10%	7.40%	3.70%	2.80%	3.10%	3.00%
				Jilin	10.00%	4.80%	6.50%	7.20%	4.40%	3.80%	3.90%	2.80%
			Heilongjiang	6.60%	10.10%	8.30%	7.50%	5.90%	3.80%	2.50%	2.30%	
			Total	3.80%	4.40%	4.20%	4.00%	2.70%	2.20%	2.10%	2.70%	
	[-3] -W-FC-D-T	Count	Region	Liaoning	342	314	281	231	116	93	80	84
				Jilin	127	135	128	107	100	78	63	60
				Heilongjiang	129	119	118	119	100	96	78	71
				Total	2995	2977	3102	3085	2503	2260	1963	1928
% within Region		Region	Liaoning	22.10%	21.80%	21.00%	18.90%	14.00%	11.10%	9.60%	9.90%	
			Jilin	20.20%	21.50%	22.60%	21.30%	19.10%	15.40%	13.60%	14.00%	
		Heilongjiang	17.70%	16.80%	17.20%	17.20%	16.80%	17.40%	14.90%	13.80%		
		Total	13.30%	13.00%	13.50%	13.80%	11.70%	10.90%	9.00%	8.70%		
[-2] -FC-D-T	Count	Region	Liaoning	183	182	133	112	55	39	44	35	
			Jilin	76	74	52	38	26	25	24	22	
			Heilongjiang	81	74	79	61	42	34	33	30	
			Total	2152	2199	1988	1749	1307	955	811	698	
	% within Region	Region	Liaoning	11.80%	12.60%	9.90%	9.20%	6.60%	4.70%	5.30%	4.10%	
			Jilin	12.10%	11.80%	9.20%	7.60%	5.00%	4.90%	5.20%	5.10%	
		Heilongjiang	11.10%	10.40%	11.50%	8.80%	7.10%	6.20%	6.30%	5.80%		
		Total	9.50%	9.60%	8.70%	7.80%	6.10%	4.60%	3.70%	3.10%		
[-1] -D-T	Count	Region	Liaoning	128	132	134	141	84	85	79	72	
			Jilin	65	45	40	50	40	31	29	40	
			Heilongjiang	68	56	44	55	54	33	37	43	
			Total	1815	1757	1839	1943	1841	1684	1740	1724	

	% within Region	Region	Liaoning	8.30%	9.20%	10.00%	11.50%	10.10%	10.20%	9.50%	8.50%
			Jilin	10.30%	7.20%	7.10%	10.00%	7.60%	6.10%	6.30%	9.30%
			Heilongjiang	9.30%	7.90%	6.40%	7.90%	9.10%	6.00%	7.10%	8.40%
			Total	8.10%	7.60%	8.00%	8.70%	8.60%	8.10%	7.90%	7.80%
[+1] -T	Count	Region	Liaoning	231	166	162	127	101	135	109	107
			Jilin	74	61	70	56	56	50	42	33
			Heilongjiang	115	84	76	79	61	64	59	68
			Total	3059	2644	2705	2579	2399	2396	2396	2138
	% within Region	Region	Liaoning	14.90%	11.50%	12.10%	10.40%	12.20%	16.20%	13.10%	12.70%
			Jilin	11.80%	9.70%	12.30%	11.20%	10.70%	9.90%	9.10%	7.70%
			Heilongjiang	15.80%	11.80%	11.10%	11.40%	10.30%	11.60%	11.30%	13.20%
			Total	13.60%	11.50%	11.80%	11.60%	11.20%	11.60%	10.90%	9.60%
[+2] ATP>0&NROTA<=5%	Count	Region	Liaoning	289	240	279	272	222	199	197	199
			Jilin	114	125	111	98	118	117	102	103
			Heilongjiang	155	132	144	155	132	148	158	136
			Total	5095	5106	5336	5284	5292	5129	5225	4985
	% within Region	Region	Liaoning	18.60%	16.70%	20.80%	22.20%	26.70%	23.80%	23.70%	23.60%
			Jilin	18.10%	19.90%	19.60%	19.50%	22.50%	23.10%	22.10%	24.00%
			Heilongjiang	21.30%	18.60%	21.00%	22.40%	22.20%	26.80%	30.30%	26.50%
			Total	22.60%	22.20%	23.20%	23.70%	24.70%	24.70%	23.90%	22.40%
[+3] 15%>=NROTA>5%	Count	Region	Liaoning	155	166	143	159	139	159	184	186
			Jilin	75	101	89	85	94	97	111	77
			Heilongjiang	96	97	106	104	100	104	96	98
			Total	4371	4327	4297	4253	4490	4579	5208	5365
	% within Region	Region	Liaoning	10.00%	11.50%	10.70%	13.00%	16.70%	19.00%	22.10%	22.00%
			Jilin	11.90%	16.10%	15.70%	16.90%	17.90%	19.20%	24.00%	17.90%
			Heilongjiang	13.20%	13.70%	15.50%	15.00%	16.80%	18.80%	18.40%	19.10%
			Total	19.40%	18.80%	18.70%	19.10%	20.90%	22.10%	23.80%	24.10%
[+4] NROTA>15%	Count	Region	Liaoning	74	104	78	90	82	102	112	137
			Jilin	35	56	40	32	67	89	73	83
			Heilongjiang	36	76	61	67	70	52	48	56



		Total	2189	2958	2721	2499	3062	3277	4105	4780	
% within Region	Region	Liaoning	4.80%	7.20%	5.80%	7.40%	9.90%	12.20%	13.50%	16.20%	
		Jilin	5.60%	8.90%	7.10%	6.40%	12.80%	17.60%	15.80%	19.30%	
		Heilongjiang	4.90%	10.70%	8.90%	9.70%	11.80%	9.40%	9.20%	10.90%	
		Total	9.70%	12.90%	11.90%	11.20%	14.30%	15.80%	18.70%	21.50%	
Total	Count	Region	Liaoning	1551	1441	1339	1223	830	835	831	845
		Jilin	629	627	567	502	524	506	462	430	
		Heilongjiang	728	710	685	692	594	552	522	514	
		Total	22543	22974	22957	22293	21463	20738	21898	22220	
% within Region	Region	Liaoning	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
		Jilin	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
		Heilongjiang	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

**Table 2.2 Number of Firms by Profitability and Year for the Whole Sample**

**Total**

			<b>YEAR</b>							
			<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Count	Profitability	[-4] -M-W-FC-D-T	867	1006	969	901	569	458	450	602
		[-3] -W-FC-D-T	2995	2977	3102	3085	2503	2260	1963	1928
		[-2] -FC-D-T	2152	2199	1988	1749	1307	955	811	698
		[-1] -D-T	1815	1757	1839	1943	1841	1684	1740	1724
		[+1] -T	3059	2644	2705	2579	2399	2396	2396	2138
		[+2] ATP>0&NROTA<=5%	5095	5106	5336	5284	5292	5129	5225	4985
		[+3] 15%>=NROTA>5%	4371	4327	4297	4253	4490	4579	5208	5365
		[+4] NROTA>15%	2189	2958	2721	2499	3062	3277	4105	4780
	Total		22543	22974	22957	22293	21463	20738	21898	22220
% within Region	Profitability	[-4] -M-W-FC-D-T	3.80%	4.40%	4.20%	4.00%	2.70%	2.20%	2.10%	2.70%
		[-3] -W-FC-D-T	13.30%	13.00%	13.50%	13.80%	11.70%	10.90%	9.00%	8.70%
		[-2] -FC-D-T	9.50%	9.60%	8.70%	7.80%	6.10%	4.60%	3.70%	3.10%
		[-1] -D-T	8.10%	7.60%	8.00%	8.70%	8.60%	8.10%	7.90%	7.80%
		[+1] -T	13.60%	11.50%	11.80%	11.60%	11.20%	11.60%	10.90%	9.60%
		[+2] ATP>0&NROTA<=5%	22.60%	22.20%	23.20%	23.70%	24.70%	24.70%	23.90%	22.40%
		[+3] 15%>=NROTA>5%	19.40%	18.80%	18.70%	19.10%	20.90%	22.10%	23.80%	24.10%
		[+4] NROTA>15%	9.70%	12.90%	11.90%	11.20%	14.30%	15.80%	18.70%	21.50%
	Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.3 Number of Firms by Profitability and Year for Liaoning**

**Region Liaoning**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	149	137	129	91	31	23	26	25
		[-3] -W-FC-D-T	342	314	281	231	116	93	80	84
		[-2] -FC-D-T	183	182	133	112	55	39	44	35
		[-1] -D-T	128	132	134	141	84	85	79	72
		[+1] -T	231	166	162	127	101	135	109	107
		[+2] ATP>0&NROTA<=5%	289	240	279	272	222	199	197	199
		[+3] 15%>=NROTA>5%	155	166	143	159	139	159	184	186
		[+4] NROTA>15%	74	104	78	90	82	102	112	137
		Total	1551	1441	1339	1223	830	835	831	845
% within Region	Profitability	[-4] -M-W-FC-D-T	9.60%	9.50%	9.60%	7.40%	3.70%	2.80%	3.10%	3.00%
		[-3] -W-FC-D-T	22.10%	21.80%	21.00%	18.90%	14.00%	11.10%	9.60%	9.90%
		[-2] -FC-D-T	11.80%	12.60%	9.90%	9.20%	6.60%	4.70%	5.30%	4.10%
		[-1] -D-T	8.30%	9.20%	10.00%	11.50%	10.10%	10.20%	9.50%	8.50%
		[+1] -T	14.90%	11.50%	12.10%	10.40%	12.20%	16.20%	13.10%	12.70%
		[+2] ATP>0&NROTA<=5%	18.60%	16.70%	20.80%	22.20%	26.70%	23.80%	23.70%	23.60%
		[+3] 15%>=NROTA>5%	10.00%	11.50%	10.70%	13.00%	16.70%	19.00%	22.10%	22.00%
		[+4] NROTA>15%	4.80%	7.20%	5.80%	7.40%	9.90%	12.20%	13.50%	16.20%
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.4 Number of Firms by Profitability and Year for Jilin**

**Region Jilin**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	63	30	37	36	23	19	18	12
		[-3] -W-FC-D-T	127	135	128	107	100	78	63	60
		[-2] -FC-D-T	76	74	52	38	26	25	24	22
		[-1] -D-T	65	45	40	50	40	31	29	40
		[+1] -T	74	61	70	56	56	50	42	33
		[+2] ATP>0&NROTA<=5%	114	125	111	98	118	117	102	103
		[+3] 15%>=NROTA>5%	75	101	89	85	94	97	111	77
		[+4] NROTA>15%	35	56	40	32	67	89	73	83
		Total	629	627	567	502	524	506	462	430
% within Region	Profitability	[-4] -M-W-FC-D-T	10.00%	4.80%	6.50%	7.20%	4.40%	3.80%	3.90%	2.80%
		[-3] -W-FC-D-T	20.20%	21.50%	22.60%	21.30%	19.10%	15.40%	13.60%	14.00%
		[-2] -FC-D-T	12.10%	11.80%	9.20%	7.60%	5.00%	4.90%	5.20%	5.10%
		[-1] -D-T	10.30%	7.20%	7.10%	10.00%	7.60%	6.10%	6.30%	9.30%
		[+1] -T	11.80%	9.70%	12.30%	11.20%	10.70%	9.90%	9.10%	7.70%
		[+2] ATP>0&NROTA<=5%	18.10%	19.90%	19.60%	19.50%	22.50%	23.10%	22.10%	24.00%
		[+3] 15%>=NROTA>5%	11.90%	16.10%	15.70%	16.90%	17.90%	19.20%	24.00%	17.90%
		[+4] NROTA>15%	5.60%	8.90%	7.10%	6.40%	12.80%	17.60%	15.80%	19.30%
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.5 Number of Firms by Profitability and Year for Heilongjiang**

**Region Heilongjiang**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	48	72	57	52	35	21	13	12
		[-3] -W-FC-D-T	129	119	118	119	100	96	78	71
		[-2] -FC-D-T	81	74	79	61	42	34	33	30
		[-1] -D-T	68	56	44	55	54	33	37	43
		[+1] -T	115	84	76	79	61	64	59	68
		[+2] ATP>0&NROTA<=5%	155	132	144	155	132	148	158	136
		[+3] 15%>=NROTA>5%	96	97	106	104	100	104	96	98
		[+4] NROTA>15%	36	76	61	67	70	52	48	56
		Total	728	710	685	692	594	552	522	514
% within Region	Profitability	[-4] -M-W-FC-D-T	6.60%	10.10%	8.30%	7.50%	5.90%	3.80%	2.50%	2.30%
		[-3] -W-FC-D-T	17.70%	16.80%	17.20%	17.20%	16.80%	17.40%	14.90%	13.80%
		[-2] -FC-D-T	11.10%	10.40%	11.50%	8.80%	7.10%	6.20%	6.30%	5.80%
		[-1] -D-T	9.30%	7.90%	6.40%	7.90%	9.10%	6.00%	7.10%	8.40%
		[+1] -T	15.80%	11.80%	11.10%	11.40%	10.30%	11.60%	11.30%	13.20%
		[+2] ATP>0&NROTA<=5%	21.30%	18.60%	21.00%	22.40%	22.20%	26.80%	30.30%	26.50%
		[+3] 15%>=NROTA>5%	13.20%	13.70%	15.50%	15.00%	16.80%	18.80%	18.40%	19.10%
		[+4] NROTA>15%	4.90%	10.70%	8.90%	9.70%	11.80%	9.40%	9.20%	10.90%
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.6 Total Assets by Profitability and Year for Liaoning, Jilin, Heilongjiang, and the Whole Sample (RMB Billion)**

				YEAR								
				1995	1996	1997	1998	1999	2000	2001	2002	
Profitability	[-4] -M-W-FC-D-T	Count	Region	Liaoning	20	24	20	16	8	6	7	7
				Jilin	8	3	6	4	3	4	3	3
				Heilongjiang	10	11	8	8	8	6	6	4
				Total	130	218	225	242	171	143	181	232
		% within Region	Region	Liaoning	4.60%	4.90%	4%	2.80%	1.50%	1.10%	1.20%	1.10%
				Jilin	4.70%	1.50%	2.70%	1.80%	1.20%	1.50%	1.10%	1.10%
			Heilongjiang	4.50%	4.90%	3.20%	2.70%	2.80%	1.70%	1.80%	1.10%	
			Total	2.50%	3.70%	3.40%	3.30%	2.20%	1.70%	2.00%	2.30%	
	[-3] -W-FC-D-T	Count	Region	Liaoning	51	60	64	44	35	28	21	24
				Jilin	19	20	22	24	22	18	32	17
				Heilongjiang	24	22	33	43	33	38	36	29
				Total	422	458	547	619	515	482	443	408
% within Region		Region	Liaoning	11.70%	12.20%	11.80%	7.80%	6.40%	5.20%	3.60%	3.90%	
			Jilin	11.20%	10.20%	10.00%	10.90%	9.00%	6.80%	12.00%	6.30%	
		Heilongjiang	10.80%	9.80%	13.00%	14.80%	11.40%	11.00%	10.70%	8.00%		
		Total	8.20%	7.80%	8.20%	8.50%	6.50%	5.90%	4.80%	4.10%		
[-2] -FC-D-T	Count	Region	Liaoning	35	42	32	30	29	8	21	15	
			Jilin	11	10	9	7	9	11	11	7	
			Heilongjiang	16	15	13	9	9	12	9	12	
			Total	327	397	372	378	383	236	234	218	
	% within Region	Region	Liaoning	8.00%	8.50%	5.90%	5.30%	5.30%	1.50%	3.60%	2.40%	
			Jilin	6.50%	5.10%	4.10%	3.20%	3.70%	4.20%	4.10%	2.60%	
		Heilongjiang	7.20%	6.70%	5.10%	3.10%	3.10%	3.50%	2.70%	3.30%		
		Total	6.30%	6.80%	5.60%	5.20%	4.80%	2.90%	2.50%	2.20%		
[-1] -D-T	Count	Region	Liaoning	35	42	48	60	56	43	64	37	
			Jilin	9	12	13	14	14	13	15	24	

			Heilongjiang	28	24	15	22	37	27	21	30
		Total		379	449	524	595	763	728	831	701
	% within Region	Region	Liaoning	8.00%	8.50%	8.80%	10.70%	10.30%	8.00%	10.90%	6.00%
			Jilin	5.30%	6.10%	5.90%	6.40%	5.70%	4.90%	5.60%	8.80%
			Heilongjiang	12.60%	10.70%	5.90%	7.60%	12.80%	7.80%	6.30%	8.20%
		Total		7.30%	7.70%	7.80%	8.10%	9.60%	8.80%	9.00%	7.10%
[+1] -T	Count	Region	Liaoning	133	91	157	106	138	188	122	169
			Jilin	21	19	65	54	56	57	15	10
			Heilongjiang	29	35	37	34	51	43	26	19
		Total		706	830	1050	1042	1109	1239	1113	1008
	% within Region	Region	Liaoning	30.40%	18.50%	28.90%	18.90%	25.30%	35.10%	20.70%	27.50%
			Jilin	12.40%	9.70%	29.40%	24.50%	23.00%	21.60%	5.60%	3.70%
			Heilongjiang	13.00%	15.60%	14.60%	11.70%	17.60%	12.40%	7.80%	5.20%
		Total		13.70%	14.10%	15.70%	14.20%	14.00%	15.00%	12.10%	10.20%
[+2] ATP>0&NROTA<=5%	Count	Region	Liaoning	93	157	140	205	195	121	188	167
			Jilin	48	56	84	80	95	104	60	78
			Heilongjiang	36	31	50	71	56	81	90	109
		Total		1496	1754	2045	2251	2494	2571	2915	2908
	% within Region	Region	Liaoning	21.30%	31.90%	25.70%	36.50%	35.70%	22.60%	32.00%	27.20%
			Jilin	28.20%	28.60%	38.00%	36.40%	38.90%	39.40%	22.60%	28.70%
			Heilongjiang	16.10%	13.80%	19.80%	24.40%	19.40%	23.40%	26.90%	29.90%
		Total		28.90%	29.90%	30.60%	30.70%	31.50%	31.20%	31.70%	29.30%
[+3] 15%>=NROTA>5%	Count	Region	Liaoning	33	40	42	85	73	81	101	159
			Jilin	48	68	15	32	36	29	113	115
			Heilongjiang	34	35	41	42	26	46	51	62
		Total		1165	1115	1296	1547	1694	1809	2171	2881
	% within Region	Region	Liaoning	7.60%	8.10%	7.70%	15.10%	13.40%	15.10%	17.20%	25.90%
			Jilin	28.20%	34.70%	6.80%	14.50%	14.80%	11.00%	42.50%	42.30%
			Heilongjiang	15.20%	15.60%	16.20%	14.40%	9.00%	13.30%	15.20%	17.00%
		Total		22.50%	19.00%	19.40%	21.10%	21.40%	22.00%	23.60%	29.10%
[+4] NROTA>15%	Count	Region	Liaoning	37	36	41	16	12	61	64	36

		Jilin	6	8	7	5	9	28	17	18	
		Heilongjiang	46	52	56	62	69	93	96	99	
		Total	543	648	630	649	784	1030	1308	1560	
% within Region	Region	Liaoning	8.50%	7.30%	7.50%	2.80%	2.20%	11.40%	10.90%	5.90%	
		Jilin	3.50%	4.10%	3.20%	2.30%	3.70%	10.60%	6.40%	6.60%	
		Heilongjiang	20.60%	23.10%	22.10%	21.30%	23.90%	26.90%	28.70%	27.20%	
		Total	10.50%	11.00%	9.40%	8.90%	9.90%	12.50%	14.20%	15.70%	
Total	Count	Region	Liaoning	437	492	544	562	546	536	588	614
			Jilin	170	196	221	220	244	264	266	272
			Heilongjiang	223	225	253	291	289	346	335	364
		Total	5168	5869	6689	7323	7913	8238	9196	9916	
	% within Region	Region	Liaoning	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
			Jilin	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
			Heilongjiang	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	



**Table 2.7 Total Assets by Profitability and Year for the Whole Sample (RMB Billion)**

**Total**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	130	218	225	242	171	143	181	232
		[-3] -W-FC-D-T	422	458	547	619	515	482	443	408
		[-2] -FC-D-T	327	397	372	378	383	236	234	218
		[-1] -D-T	379	449	524	595	763	728	831	701
		[+1] -T	706	830	1050	1042	1109	1239	1113	1008
		[+2] ATP>0&NROTA<=5%	1496	1754	2045	2251	2494	2571	2915	2908
		[+3] 15%>=NROTA>5%	1165	1115	1296	1547	1694	1809	2171	2881
		[+4] NROTA>15%	543	648	630	649	784	1030	1308	1560
		Total	5168	5869	6689	7323	7913	8238	9196	9916
% within Region	Profitability	[-4] -M-W-FC-D-T	2.50%	3.70%	3.40%	3.30%	2.20%	1.70%	2.00%	2.30%
		[-3] -W-FC-D-T	8.20%	7.80%	8.20%	8.50%	6.50%	5.90%	4.80%	4.10%
		[-2] -FC-D-T	6.30%	6.80%	5.60%	5.20%	4.80%	2.90%	2.50%	2.20%
		[-1] -D-T	7.30%	7.70%	7.80%	8.10%	9.60%	8.80%	9.00%	7.10%
		[+1] -T	13.70%	14.10%	15.70%	14.20%	14.00%	15.00%	12.10%	10.20%
		[+2] ATP>0&NROTA<=5%	28.90%	29.90%	30.60%	30.70%	31.50%	31.20%	31.70%	29.30%
		[+3] 15%>=NROTA>5%	22.50%	19.00%	19.40%	21.10%	21.40%	22.00%	23.60%	29.10%
		[+4] NROTA>15%	10.50%	11.00%	9.40%	8.90%	9.90%	12.50%	14.20%	15.70%
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.8 Total Assets by Profitability and Year for Liaoning (RMB Billion)**

**Region Liaoning**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	20	24	20	16	8	6	7	7
		[-3] -W-FC-D-T	51	60	64	44	35	28	21	24
		[-2] -FC-D-T	35	42	32	30	29	8	21	15
		[-1] -D-T	35	42	48	60	56	43	64	37
		[+1] -T	133	91	157	106	138	188	122	169
		[+2] ATP>0&NROTA<=5%	93	157	140	205	195	121	188	167
		[+3] 15%>=NROTA>5%	33	40	42	85	73	81	101	159
		[+4] NROTA>15%	37	36	41	16	12	61	64	36
		Total	437	492	544	562	546	536	588	614
% within Region	Profitability	[-4] -M-W-FC-D-T	4.60%	4.90%	3.70%	2.80%	1.50%	1.10%	1.20%	1.10%
		[-3] -W-FC-D-T	11.70%	12.20%	11.80%	7.80%	6.40%	5.20%	3.60%	3.90%
		[-2] -FC-D-T	8.00%	8.50%	5.90%	5.30%	5.30%	1.50%	3.60%	2.40%
		[-1] -D-T	8.00%	8.50%	8.80%	10.70%	10.30%	8.00%	10.90%	6.00%
		[+1] -T	30.40%	18.50%	28.90%	18.90%	25.30%	35.10%	20.70%	27.50%
		[+2] ATP>0&NROTA<=5%	21.30%	31.90%	25.70%	36.50%	35.70%	22.60%	32.00%	27.20%
		[+3] 15%>=NROTA>5%	7.60%	8.10%	7.70%	15.10%	13.40%	15.10%	17.20%	25.90%
		[+4] NROTA>15%	8.50%	7.30%	7.50%	2.80%	2.20%	11.40%	10.90%	5.90%
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.9 Total Assets by Profitability and Year for Jilin (RMB Billion)**

**Region Jilin**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	8	3	6	4	3	4	3	3
		[-3] -W-FC-D-T	19	20	22	24	22	18	32	17
		[-2] -FC-D-T	11	10	9	7	9	11	11	7
		[-1] -D-T	9	12	13	14	14	13	15	24
		[+1] -T	21	19	65	54	56	57	15	10
		[+2] ATP>0&NROTA<=5%	48	56	84	80	95	104	60	78
		[+3] 15%>=NROTA>5%	48	68	15	32	36	29	113	115
		[+4] NROTA>15%	6	8	7	5	9	28	17	18
Total			170	196	221	220	244	264	266	272
% within Region	Profitability	[-4] -M-W-FC-D-T	4.70%	1.50%	2.70%	1.80%	1.20%	1.50%	1.10%	1.10%
		[-3] -W-FC-D-T	11.20%	10.20%	10.00%	10.90%	9.00%	6.80%	12.00%	6.30%
		[-2] -FC-D-T	6.50%	5.10%	4.10%	3.20%	3.70%	4.20%	4.10%	2.60%
		[-1] -D-T	5.30%	6.10%	5.90%	6.40%	5.70%	4.90%	5.60%	8.80%
		[+1] -T	12.40%	9.70%	29.40%	24.50%	23.00%	21.60%	5.60%	3.70%
		[+2] ATP>0&NROTA<=5%	28.20%	28.60%	38.00%	36.40%	38.90%	39.40%	22.60%	28.70%
		[+3] 15%>=NROTA>5%	28.20%	34.70%	6.80%	14.50%	14.80%	11.00%	42.50%	42.30%
		[+4] NROTA>15%	3.50%	4.10%	3.20%	2.30%	3.70%	10.60%	6.40%	6.60%
Total			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.10 Total Assets by Profitability and Year for Heilongjiang (RMB Billion)**

**Region Heilongjiang**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	10	11	8	8	8	6	6	4
		[-3] -W-FC-D-T	24	22	33	43	33	38	36	29
		[-2] -FC-D-T	16	15	13	9	9	12	9	12
		[-1] -D-T	28	24	15	22	37	27	21	30
		[+1] -T	29	35	37	34	51	43	26	19
		[+2] ATP>0&NROTA<=5%	36	31	50	71	56	81	90	109
		[+3] 15%>=NROTA>5%	34	35	41	42	26	46	51	62
		[+4] NROTA>15%	46	52	56	62	69	93	96	99
	Total		223	225	253	291	289	346	335	364
% within Region	Profitability	[-4] -M-W-FC-D-T	4.50%	4.90%	3.20%	2.70%	2.80%	1.70%	1.80%	1.10%
		[-3] -W-FC-D-T	10.80%	9.80%	13.00%	14.80%	11.40%	11.00%	10.70%	8.00%
		[-2] -FC-D-T	7.20%	6.70%	5.10%	3.10%	3.10%	3.50%	2.70%	3.30%
		[-1] -D-T	12.60%	10.70%	5.90%	7.60%	12.80%	7.80%	6.30%	8.20%
		[+1] -T	13.00%	15.60%	14.60%	11.70%	17.60%	12.40%	7.80%	5.20%
		[+2] ATP>0&NROTA<=5%	16.10%	13.80%	19.80%	24.40%	19.40%	23.40%	26.90%	29.90%
		[+3] 15%>=NROTA>5%	15.20%	15.60%	16.20%	14.40%	9.00%	13.30%	15.20%	17.00%
		[+4] NROTA>15%	20.60%	23.10%	22.10%	21.30%	23.90%	26.90%	28.70%	27.20%
	Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.11 Employment by Profitability and Year for Liaoning, Jilin, Heilongjiang and the Whole Sample (Thousand Person)**

				YEAR								
				1995	1996	1997	1998	1999	2000	2001	2002	
Profitability	[-4] -M-W-FC-D-T	Count	Region	Liaoning	170	172	151	99	32	31	25	21
				Jilin	80	30	48	40	32	25	18	16
				Heilongjiang	104	124	87	57	68	38	19	14
				Total	911	1058	993	842	491	373	365	401
		% within Region	Region	Liaoning	5.30%	5.30%	5%	4.00%	1.70%	1.80%	1.60%	1.40%
				Jilin	5.80%	2.20%	3.60%	3.40%	3.10%	2.60%	2.10%	2.10%
			Heilongjiang	4.50%	6.10%	4.30%	3.00%	4.10%	2.60%	1.40%	1.20%	
			Total	2.40%	2.80%	2.70%	2.50%	1.60%	1.30%	1.30%	1.50%	
	[-3] -W-FC-D-T	Count	Region	Liaoning	604	603	683	389	255	212	117	104
				Jilin	355	338	313	280	251	174	197	107
				Heilongjiang	406	336	459	516	359	380	275	238
				Total	5399	5265	5606	4992	3816	3234	2514	2112
% within Region		Region	Liaoning	19.00%	18.70%	22.60%	15.80%	13.80%	12.10%	7.50%	7.20%	
			Jilin	25.70%	25.10%	23.40%	23.50%	24.00%	18.10%	23.10%	14.00%	
		Heilongjiang	17.70%	16.50%	22.90%	26.80%	21.80%	25.50%	21.00%	19.90%		
		Total	14.10%	14.00%	15.30%	14.90%	12.40%	11.50%	9.30%	8.00%		
[-2] -FC-D-T	Count	Region	Liaoning	333	387	244	199	145	48	116	62	
			Jilin	106	114	93	58	41	53	41	28	
			Heilongjiang	183	154	148	146	84	86	59	59	
			Total	3286	3558	2978	2416	1860	1162	979	782	
	% within Region	Region	Liaoning	10.50%	12.00%	8.10%	8.10%	7.80%	2.70%	7.50%	4.30%	
			Jilin	7.70%	8.50%	7.00%	4.90%	3.90%	5.50%	4.80%	3.70%	
		Heilongjiang	8.00%	7.50%	7.40%	7.60%	5.10%	5.80%	4.50%	4.90%		
		Total	8.60%	9.50%	8.10%	7.20%	6.10%	4.10%	3.60%	3.00%		
[-1] -D-T	Count	Region	Liaoning	398	255	298	233	189	213	159	126	
			Jilin	104	93	102	101	69	50	46	87	

			Heilongjiang	317	274	116	134	192	172	104	115
		Total		3494	3511	3266	2837	3179	2701	2140	2156
	% within Region	Region	Liaoning	12.50%	7.90%	9.90%	9.40%	10.20%	12.10%	10.30%	8.70%
			Jilin	7.50%	6.90%	7.60%	8.50%	6.60%	5.20%	5.40%	11.40%
			Heilongjiang	13.80%	13.40%	5.80%	7.00%	11.70%	11.60%	7.90%	9.60%
		Total		9.10%	9.40%	8.90%	8.50%	10.40%	9.60%	7.90%	8.20%
[+1] -T	Count	Region	Liaoning	766	472	642	361	328	521	346	382
			Jilin	175	147	287	207	138	113	49	35
			Heilongjiang	403	355	262	230	177	147	117	101
		Total		5923	5389	5368	5281	4107	4209	3716	2936
	% within Region	Region	Liaoning	24.10%	14.60%	21.20%	14.60%	17.70%	29.60%	22.30%	26.30%
			Jilin	12.60%	10.90%	21.50%	17.40%	13.20%	11.80%	5.70%	4.60%
			Heilongjiang	17.50%	17.40%	13.10%	11.90%	10.80%	9.90%	8.90%	8.40%
		Total		15.50%	14.40%	14.70%	15.80%	13.40%	14.90%	13.70%	11.10%
[+2] ATP>0&NROTA<=5%	Count	Region	Liaoning	507	860	601	781	598	375	390	346
			Jilin	247	286	326	319	336	331	176	178
			Heilongjiang	382	366	448	404	378	313	393	340
		Total		9315	9456	9483	8920	8535	7898	7749	6861
	% within Region	Region	Liaoning	15.90%	26.70%	19.90%	31.70%	32.30%	21.30%	25.20%	23.80%
			Jilin	17.80%	21.30%	24.40%	26.70%	32.20%	34.50%	20.60%	23.20%
			Heilongjiang	16.60%	17.90%	22.40%	21.00%	23.00%	21.00%	30.00%	28.40%
		Total		24.40%	25.20%	25.90%	26.60%	27.80%	28.00%	28.60%	26.00%
[+3] 15%>=NROTA>5%	Count	Region	Liaoning	208	254	192	332	244	232	274	308
			Jilin	285	284	132	146	103	120	259	248
			Heilongjiang	219	230	244	203	173	201	218	179
		Total		6991	5981	5751	5561	5624	5448	5916	6764
	% within Region	Region	Liaoning	6.50%	7.90%	6.40%	13.50%	13.20%	13.20%	17.70%	21.20%
			Jilin	20.60%	21.10%	9.90%	12.20%	9.90%	12.50%	30.30%	32.40%
			Heilongjiang	9.50%	11.30%	12.20%	10.50%	10.50%	13.50%	16.60%	15.00%
		Total		18.30%	15.90%	15.70%	16.60%	18.30%	19.30%	21.80%	25.60%
[+4] NROTA>15%	Count	Region	Liaoning	195	219	211	72	62	127	123	104

		Jilin	32	52	34	42	75	93	68	67	
		Heilongjiang	285	202	238	238	213	152	127	150	
		Total	2907	3301	3133	2641	3046	3197	3708	4407	
% within Region	Region	Liaoning	6.10%	6.80%	7.00%	2.90%	3.30%	7.20%	7.90%	7.20%	
		Jilin	2.30%	3.90%	2.50%	3.50%	7.20%	9.70%	8.00%	8.70%	
		Heilongjiang	12.40%	9.90%	11.90%	12.30%	13.00%	10.20%	9.70%	12.50%	
		Total	7.60%	8.80%	8.60%	7.90%	9.90%	11.30%	13.70%	16.70%	
Total	Count	Region	Liaoning	3181	3222	3022	2466	1853	1759	1550	1453
			Jilin	1384	1344	1335	1193	1045	959	854	766
			Heilongjiang	2299	2041	2002	1928	1644	1489	1312	1196
		Total	38226	37519	36578	33490	30658	28222	27087	26419	
% within Region	Region	Liaoning	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
		Jilin	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
		Heilongjiang	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

**Table 2.12 Employment by Profitability and Year for the Whole Sample (Thousand Person)**

**Total**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	911	1058	993	842	491	373	365	401
		[-3] -W-FC-D-T	5399	5265	5606	4992	3816	3234	2514	2112
		[-2] -FC-D-T	3286	3558	2978	2416	1860	1162	979	782
		[-1] -D-T	3494	3511	3266	2837	3179	2701	2140	2156
		[+1] -T	5923	5389	5368	5281	4107	4209	3716	2936
		[+2] ATP>0&NROTA<=5%	9315	9456	9483	8920	8535	7898	7749	6861
		[+3] 15%>=NROTA>5%	6991	5981	5751	5561	5624	5448	5916	6764
		[+4] NROTA>15%	2907	3301	3133	2641	3046	3197	3708	4407
		Total	38226	37519	36578	33490	30658	28222	27087	26419
% within Region	Profitability	[-4] -M-W-FC-D-T	2.40%	2.80%	2.70%	2.50%	1.60%	1.30%	1.30%	1.50%
		[-3] -W-FC-D-T	14.10%	14.00%	15.30%	14.90%	12.40%	11.50%	9.30%	8.00%
		[-2] -FC-D-T	8.60%	9.50%	8.10%	7.20%	6.10%	4.10%	3.60%	3.00%
		[-1] -D-T	9.10%	9.40%	8.90%	8.50%	10.40%	9.60%	7.90%	8.20%
		[+1] -T	15.50%	14.40%	14.70%	15.80%	13.40%	14.90%	13.70%	11.10%
		[+2] ATP>0&NROTA<=5%	24.40%	25.20%	25.90%	26.60%	27.80%	28.00%	28.60%	26.00%
		[+3] 15%>=NROTA>5%	18.30%	15.90%	15.70%	16.60%	18.30%	19.30%	21.80%	25.60%
		[+4] NROTA>15%	7.60%	8.80%	8.60%	7.90%	9.90%	11.30%	13.70%	16.70%
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%



**Table 2.13 Employment by Profitability and Year for Liaoning (Thousand Person)**

**Region Liaoning**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	170	172	151	99	32	31	25	21
		[-3] -W-FC-D-T	604	603	683	389	255	212	117	104
		[-2] -FC-D-T	333	387	244	199	145	48	116	62
		[-1] -D-T	398	255	298	233	189	213	159	126
		[+1] -T	766	472	642	361	328	521	346	382
		[+2] ATP>0&NROTA<=5%	507	860	601	781	598	375	390	346
		[+3] 15%>=NROTA>5%	208	254	192	332	244	232	274	308
		[+4] NROTA>15%	195	219	211	72	62	127	123	104
		Total	3181	3222	3022	2466	1853	1759	1550	1453
% within Region	Profitability	[-4] -M-W-FC-D-T	5.30%	5.30%	5.00%	4.00%	1.70%	1.80%	1.60%	1.40%
		[-3] -W-FC-D-T	19.00%	18.70%	22.60%	15.80%	13.80%	12.10%	7.50%	7.20%
		[-2] -FC-D-T	10.50%	12.00%	8.10%	8.10%	7.80%	2.70%	7.50%	4.30%
		[-1] -D-T	12.50%	7.90%	9.90%	9.40%	10.20%	12.10%	10.30%	8.70%
		[+1] -T	24.10%	14.60%	21.20%	14.60%	17.70%	29.60%	22.30%	26.30%
		[+2] ATP>0&NROTA<=5%	15.90%	26.70%	19.90%	31.70%	32.30%	21.30%	25.20%	23.80%
		[+3] 15%>=NROTA>5%	6.50%	7.90%	6.40%	13.50%	13.20%	13.20%	17.70%	21.20%
		[+4] NROTA>15%	6.10%	6.80%	7.00%	2.90%	3.30%	7.20%	7.90%	7.20%
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.14 Employment by Profitability and Year for Jilin (Thousand Person)**

**Region Jilin**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	80	30	48	40	32	25	18	16
		[-3] -W-FC-D-T	355	338	313	280	251	174	197	107
		[-2] -FC-D-T	106	114	93	58	41	53	41	28
		[-1] -D-T	104	93	102	101	69	50	46	87
		[+1] -T	175	147	287	207	138	113	49	35
		[+2] ATP>0&NROTA<=5%	247	286	326	319	336	331	176	178
		[+3] 15%>=NROTA>5%	285	284	132	146	103	120	259	248
		[+4] NROTA>15%	32	52	34	42	75	93	68	67
Total			1384	1344	1335	1193	1045	959	854	766
% within Region	Profitability	[-4] -M-W-FC-D-T	5.80%	2.20%	3.60%	3.40%	3.10%	2.60%	2.10%	2.10%
		[-3] -W-FC-D-T	25.70%	25.10%	23.40%	23.50%	24.00%	18.10%	23.10%	14.00%
		[-2] -FC-D-T	7.70%	8.50%	7.00%	4.90%	3.90%	5.50%	4.80%	3.70%
		[-1] -D-T	7.50%	6.90%	7.60%	8.50%	6.60%	5.20%	5.40%	11.40%
		[+1] -T	12.60%	10.90%	21.50%	17.40%	13.20%	11.80%	5.70%	4.60%
		[+2] ATP>0&NROTA<=5%	17.80%	21.30%	24.40%	26.70%	32.20%	34.50%	20.60%	23.20%
		[+3] 15%>=NROTA>5%	20.60%	21.10%	9.90%	12.20%	9.90%	12.50%	30.30%	32.40%
		[+4] NROTA>15%	2.30%	3.90%	2.50%	3.50%	7.20%	9.70%	8.00%	8.70%
Total			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.15 Employment by Profitability and Year for Heilongjiang (Thousand Person)**

**Region Heilongjiang**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Profitability	[-4] -M-W-FC-D-T	104	124	87	57	68	38	19	14
		[-3] -W-FC-D-T	406	336	459	516	359	380	275	238
		[-2] -FC-D-T	183	154	148	146	84	86	59	59
		[-1] -D-T	317	274	116	134	192	172	104	115
		[+1] -T	403	355	262	230	177	147	117	101
		[+2] ATP>0&NROTA<=5%	382	366	448	404	378	313	393	340
		[+3] 15%>=NROTA>5%	219	230	244	203	173	201	218	179
		[+4] NROTA>15%	285	202	238	238	213	152	127	150
		Total	2299	2041	2002	1928	1644	1489	1312	1196
% within Region	Profitability	[-4] -M-W-FC-D-T	4.50%	6.10%	4.30%	3.00%	4.10%	2.60%	1.40%	1.20%
		[-3] -W-FC-D-T	17.70%	16.50%	22.90%	26.80%	21.80%	25.50%	21.00%	19.90%
		[-2] -FC-D-T	8.00%	7.50%	7.40%	7.60%	5.10%	5.80%	4.50%	4.90%
		[-1] -D-T	13.80%	13.40%	5.80%	7.00%	11.70%	11.60%	7.90%	9.60%
		[+1] -T	17.50%	17.40%	13.10%	11.90%	10.80%	9.90%	8.90%	8.40%
		[+2] ATP>0&NROTA<=5%	16.60%	17.90%	22.40%	21.00%	23.00%	21.00%	30.00%	28.40%
		[+3] 15%>=NROTA>5%	9.50%	11.30%	12.20%	10.50%	10.50%	13.50%	16.60%	15.00%
		[+4] NROTA>15%	12.40%	9.90%	11.90%	12.30%	13.00%	10.20%	9.70%	12.50%
		Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.16 Number of Firms by Ownership and YEAR for Liaoning, Jilin, Heilongjiang and the Whole Sample**

				YEAR								
				1995	1996	1997	1998	1999	2000	2001	2002	
Ownership	private	Count	Region	Liaoning	0	1	15	46	43	53	50	69
				Jilin	0	0	0	2	10	13	16	14
				Heilongjiang	1	1	1	3	3	7	8	20
				Total	5	14	34	176	307	498	958	1302
		% within Region	Region	Liaoning	0.00%	0.10%	1%	3.80%	5.20%	6.30%	6.00%	8.20%
				Jilin	0.00%	0.00%	0.00%	0.40%	1.90%	2.60%	3.50%	3.30%
			Heilongjiang	0.10%	0.10%	0.10%	0.40%	0.50%	1.30%	1.50%	3.90%	
			Total	0.00%	0.10%	0.10%	0.80%	1.40%	2.40%	4.40%	5.90%	
	collective	Count	Region	Liaoning	243	206	181	149	113	93	91	78
				Jilin	53	49	44	40	45	47	41	35
				Heilongjiang	56	59	52	55	38	38	32	28
				Total	4008	4199	4074	3577	3350	2899	2394	2138
% within Region		Region	Liaoning	15.70%	14.30%	13.50%	12.20%	13.60%	11.10%	11.00%	9.20%	
			Jilin	8.40%	7.80%	7.80%	8.00%	8.60%	9.30%	8.90%	8.10%	
		Heilongjiang	7.70%	8.30%	7.60%	7.90%	6.40%	6.90%	6.10%	5.40%		
		Total	17.80%	18.30%	17.70%	16.00%	15.60%	14.00%	10.90%	9.60%		
mixed	Count	Region	Liaoning	91	94	96	107	128	150	184	202	
			Jilin	20	25	44	56	83	100	107	114	
			Heilongjiang	28	31	37	93	107	119	146	159	
			Total	1233	1406	2044	2934	3592	4381	5619	6135	
	% within Region	Region	Liaoning	5.90%	6.50%	7.20%	8.70%	15.40%	18.00%	22.10%	23.90%	
			Jilin	3.20%	4.00%	7.80%	11.20%	15.80%	19.80%	23.20%	26.50%	
		Heilongjiang	3.80%	4.40%	5.40%	13.40%	18.00%	21.60%	28.00%	30.90%		
		Total	5.50%	6.10%	8.90%	13.20%	16.70%	21.10%	25.70%	27.60%		
foreign	Count	Region	Liaoning	107	126	127	152	138	162	162	177	
			Jilin	19	20	24	18	35	34	34	33	
			Heilongjiang	23	20	27	18	23	21	20	26	
			Total	1000	1305	1505	1579	1924	2048	2610	2935	

	% within Region	Region	Liaoning	6.90%	8.70%	9.50%	12.40%	16.60%	19.40%	19.50%	20.90%
			Jilin	3.00%	3.20%	4.20%	3.60%	6.70%	6.70%	7.40%	7.70%
			Heilongjiang	3.20%	2.80%	3.90%	2.60%	3.90%	3.80%	3.80%	5.10%
			Total	4.40%	5.70%	6.60%	7.10%	9.00%	9.90%	11.90%	13.20%
HK-M-Taiwan	Count	Region	Liaoning	63	61	59	56	48	46	51	62
			Jilin	6	8	7	11	17	15	12	10
			Heilongjiang	12	17	19	25	21	20	18	17
			Total	936	1115	1203	1454	1524	1552	2211	2495
	% within Region	Region	Liaoning	4.10%	4.20%	4.40%	4.60%	5.80%	5.50%	6.10%	7.30%
			Jilin	1.00%	1.30%	1.20%	2.20%	3.20%	3.00%	2.60%	2.30%
			Heilongjiang	1.60%	2.40%	2.80%	3.60%	3.50%	3.60%	3.40%	3.30%
			Total	4.20%	4.90%	5.20%	6.50%	7.10%	7.50%	10.10%	11.20%
state-owned	Count	Region	Liaoning	1047	953	861	713	360	331	293	257
			Jilin	531	525	448	375	334	297	252	224
			Heilongjiang	608	582	549	498	402	347	298	264
			Total	15361	14935	14097	12573	10766	9360	8106	7215
	% within Region	Region	Liaoning	67.50%	66.10%	64.30%	58.30%	43.40%	39.60%	35.30%	30.40%
			Jilin	84.40%	83.70%	79.00%	74.70%	63.70%	58.70%	54.50%	52.10%
			Heilongjiang	83.50%	82.00%	80.10%	72.00%	67.70%	62.90%	57.10%	51.40%
			Total	68.10%	65.00%	61.40%	56.40%	50.20%	45.10%	37.00%	32.50%
Total	Count	Region	Liaoning	1551	1441	1339	1223	830	835	831	845
			Jilin	629	627	567	502	524	506	462	430
			Heilongjiang	728	710	685	692	594	552	522	514
			Total	22543	22974	22957	22293	21463	20738	21898	22220
	% within Region	Region	Liaoning	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
			Jilin	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
			Heilongjiang	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
			Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.17 Number of Firms by Ownership and YEAR for the Whole Sample**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Ownership	private	5	14	34	176	307	498	958	1302
		collective	4008	4199	4074	3577	3350	2899	2394	2138
		mixed	1233	1406	2044	2934	3592	4381	5619	6135
		foreign	1000	1305	1505	1579	1924	2048	2610	2935
		HK-M-Taiwan	936	1115	1203	1454	1524	1552	2211	2495
		state-owned	15361	14935	14097	12573	10766	9360	8106	7215
	Total	22543	22974	22957	22293	21463	20738	21898	22220	
% within Region	Ownership	private	0.00%	0.10%	0.10%	0.80%	1.40%	2.40%	4.40%	5.90%
		collective	17.80%	18.30%	17.70%	16.00%	15.60%	14.00%	10.90%	9.60%
		mixed	5.50%	6.10%	8.90%	13.20%	16.70%	21.10%	25.70%	27.60%
		foreign	4.40%	5.70%	6.60%	7.10%	9.00%	9.90%	11.90%	13.20%
		HK-M-Taiwan	4.20%	4.90%	5.20%	6.50%	7.10%	7.50%	10.10%	11.20%
		state-owned	68.10%	65.00%	61.40%	56.40%	50.20%	45.10%	37.00%	32.50%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

**Table 2.18 Number of Firms by Ownership and YEAR for Liaoning**

**Region Liaoning**

			<b>YEAR</b>							
			<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Count	Ownership	private	0	1	15	46	43	53	50	69
		collective	243	206	181	149	113	93	91	78
		mixed	91	94	96	107	128	150	184	202
		foreign	107	126	127	152	138	162	162	177
		HK-M-Taiwan	63	61	59	56	48	46	51	62
		state-owned	1047	953	861	713	360	331	293	257
	Total	1551	1441	1339	1223	830	835	831	845	
% within Region	Ownership	private	0.00%	0.10%	1.10%	3.80%	5.20%	6.30%	6.00%	8.20%
		collective	15.70%	14.30%	13.50%	12.20%	13.60%	11.10%	11.00%	9.20%
		mixed	5.90%	6.50%	7.20%	8.70%	15.40%	18.00%	22.10%	23.90%
		foreign	6.90%	8.70%	9.50%	12.40%	16.60%	19.40%	19.50%	20.90%
		HK-M-Taiwan	4.10%	4.20%	4.40%	4.60%	5.80%	5.50%	6.10%	7.30%
		state-owned	67.50%	66.10%	64.30%	58.30%	43.40%	39.60%	35.30%	30.40%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.19 Number of Firms by Ownership and YEAR for Jilin**

**Region Jilin**

			<b>YEAR</b>							
			<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Count	Ownership	private	0	0	0	2	10	13	16	14
		collective	53	49	44	40	45	47	41	35
		mixed	20	25	44	56	83	100	107	114
		foreign	19	20	24	18	35	34	34	33
		HK-M-Taiwan	6	8	7	11	17	15	12	10
		state-owned	531	525	448	375	334	297	252	224
	Total	629	627	567	502	524	506	462	430	
% within Region	Ownership	private	0.00%	0.00%	0.00%	0.40%	1.90%	2.60%	3.50%	3.30%
		collective	8.40%	7.80%	7.80%	8.00%	8.60%	9.30%	8.90%	8.10%
		mixed	3.20%	4.00%	7.80%	11.20%	15.80%	19.80%	23.20%	26.50%
		foreign	3.00%	3.20%	4.20%	3.60%	6.70%	6.70%	7.40%	7.70%
		HK-M-Taiwan	1.00%	1.30%	1.20%	2.20%	3.20%	3.00%	2.60%	2.30%
		state-owned	84.40%	83.70%	79.00%	74.70%	63.70%	58.70%	54.50%	52.10%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%



**Table 2.20 Number of Firms by Ownership and YEAR for Heilongjiang**

**Region Heilongjiang**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Ownership	private	1	1	1	3	3	7	8	20
		collective	56	59	52	55	38	38	32	28
		mixed	28	31	37	93	107	119	146	159
		foreign	23	20	27	18	23	21	20	26
		HK-M-Taiwan	12	17	19	25	21	20	18	17
		state-owned	608	582	549	498	402	347	298	264
	Total	728	710	685	692	594	552	522	514	
% within Region	Ownership	private	0.10%	0.10%	0.10%	0.40%	0.50%	1.30%	1.50%	3.90%
		collective	7.70%	8.30%	7.60%	7.90%	6.40%	6.90%	6.10%	5.40%
		mixed	3.80%	4.40%	5.40%	13.40%	18.00%	21.60%	28.00%	30.90%
		foreign	3.20%	2.80%	3.90%	2.60%	3.90%	3.80%	3.80%	5.10%
		HK-M-Taiwan	1.60%	2.40%	2.80%	3.60%	3.50%	3.60%	3.40%	3.30%
		state-owned	83.50%	82.00%	80.10%	72.00%	67.70%	62.90%	57.10%	51.40%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.21 Total Assets by Ownership and Year for Liaoning, Jilin, Heilongjiang and the Whole Sample (RMB Billion)**

				YEAR								
				1995	1996	1997	1998	1999	2000	2001	2002	
Ownership	private	Count	Region	Liaoning	0	0	1	6	6	7	7	10
				Jilin	0	0	0	0	1	1	1	1
				Heilongjiang	0	0	0	0	0	1	1	1
				Total	0	0	1	13	27	48	101	151
		% within Region	Region	Liaoning	0.00%	0.00%	0%	1.10%	1.10%	1.30%	1.20%	1.60%
				Jilin	0.00%	0.00%	0.00%	0.00%	0.40%	0.40%	0.40%	0.40%
			Heilongjiang	0.00%	0.00%	0.00%	0.00%	0.00%	0.30%	0.30%	0.30%	
			Total	0.00%	0.00%	0.00%	0.20%	0.30%	0.60%	1.10%	1.50%	
	collective	Count	Region	Liaoning	15	14	13	14	13	10	10	10
				Jilin	4	4	4	4	4	5	4	3
				Heilongjiang	3	4	4	4	3	3	3	3
				Total	333	391	417	428	436	398	354	356
% within Region		Region	Liaoning	3.40%	2.90%	2.40%	2.50%	2.40%	1.90%	1.70%	1.60%	
			Jilin	2.40%	2.10%	1.80%	1.80%	1.60%	1.90%	1.50%	1.10%	
		Heilongjiang	1.30%	1.80%	1.60%	1.40%	1.00%	0.90%	0.90%	0.80%		
		Total	6.50%	6.70%	6.20%	5.80%	5.50%	4.80%	3.90%	3.60%		
mixed	Count	Region	Liaoning	28	31	45	56	66	116	203	223	
			Jilin	5	7	14	11	22	59	73	80	
			Heilongjiang	15	16	23	54	37	148	170	168	
			Total	414	496	675	885	1197	1889	2633	3016	
	% within Region	Region	Liaoning	6.40%	6.30%	8.30%	10.00%	12.10%	21.60%	34.50%	36.40%	
			Jilin	3.00%	3.60%	6.40%	5.00%	9.00%	22.30%	27.50%	29.50%	
		Heilongjiang	6.70%	7.10%	9.10%	18.40%	12.80%	42.90%	51.10%	46.30%		
		Total	8.00%	8.40%	10.10%	12.10%	15.10%	22.90%	28.60%	30.50%		
foreign	Count	Region	Liaoning	23	38	42	47	47	48	51	54	
			Jilin	10	12	5	15	18	19	20	25	
			Heilongjiang	5	4	9	9	10	13	10	15	

		Total		283	414	518	593	676	729	1047	1160
	% within Region	Region	Liaoning	5.30%	7.70%	7.70%	8.40%	8.60%	9.00%	8.70%	8.80%
			Jilin	5.90%	6.20%	2.30%	6.80%	7.30%	7.20%	7.50%	9.20%
			Heilongjiang	2.20%	1.80%	3.60%	3.10%	3.40%	3.80%	3.00%	4.10%
		Total		5.50%	7.10%	7.70%	8.10%	8.50%	8.90%	11.40%	11.70%
HK-M-Taiwan	Count	Region	Liaoning	10	9	13	13	15	14	21	25
			Jilin	2	2	3	3	5	4	4	4
			Heilongjiang	3	3	5	7	7	6	5	5
		Total		241	285	326	454	499	530	635	708
	% within Region	Region	Liaoning	2.30%	1.80%	2.40%	2.30%	2.70%	2.60%	3.60%	4.10%
			Jilin	1.20%	1.00%	1.40%	1.40%	2.00%	1.50%	1.50%	1.50%
			Heilongjiang	1.30%	1.30%	2.00%	2.40%	2.40%	1.70%	1.50%	1.40%
		Total		4.70%	4.90%	4.90%	6.20%	6.30%	6.40%	6.90%	7.20%
state-owned	Count	Region	Liaoning	361	399	430	426	400	341	297	291
			Jilin	148	169	194	186	195	177	163	158
			Heilongjiang	197	199	212	219	233	174	144	171
		Total		3888	4285	4749	4952	5086	4643	4423	4510
	% within Region	Region	Liaoning	82.60%	81.30%	79.00%	75.80%	73.10%	63.60%	50.40%	47.50%
			Jilin	87.60%	87.10%	88.20%	84.90%	79.60%	66.80%	61.50%	58.30%
			Heilongjiang	88.30%	88.10%	83.80%	74.70%	80.30%	50.40%	43.20%	47.10%
		Total		75.40%	73.00%	71.00%	67.60%	64.20%	56.40%	48.10%	45.60%
Total	Count	Region	Liaoning	437	491	544	562	547	536	589	613
			Jilin	169	194	220	219	245	265	265	271
			Heilongjiang	223	226	253	293	290	345	333	363
		Total		5159	5871	6686	7325	7921	8237	9193	9901
	% within Region	Region	Liaoning	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
			Jilin	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
			Heilongjiang	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
		Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.22 Total Assets by Ownership and Year for the Whole Sample (RMB Billion)**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Ownership	private	0	0	1	13	27	48	101	151
		collective	333	391	417	428	436	398	354	356
		mixed	414	496	675	885	1197	1889	2633	3016
		foreign	283	414	518	593	676	729	1047	1160
		HK-M-Taiwan	241	285	326	454	499	530	635	708
		state-owned	3888	4285	4749	4952	5086	4643	4423	4510
	Total	5159	5871	6686	7325	7921	8237	9193	9901	
% within Region	Ownership	private	0.00%	0.00%	0.00%	0.20%	0.30%	0.60%	1.10%	1.50%
		collective	6.50%	6.70%	6.20%	5.80%	5.50%	4.80%	3.90%	3.60%
		mixed	8.00%	8.40%	10.10%	12.10%	15.10%	22.90%	28.60%	30.50%
		foreign	5.50%	7.10%	7.70%	8.10%	8.50%	8.90%	11.40%	11.70%
		HK-M-Taiwan	4.70%	4.90%	4.90%	6.20%	6.30%	6.40%	6.90%	7.20%
		state-owned	75.40%	73.00%	71.00%	67.60%	64.20%	56.40%	48.10%	45.60%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 2.23 Total Assets by Ownership and Year for Liaoning (RMB Billion)**

**Region Liaoning**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Ownership	private	0	0	1	6	6	7	7	10
		collective	15	14	13	14	13	10	10	10
		mixed	28	31	45	56	66	116	203	223
		foreign	23	38	42	47	47	48	51	54
		HK-M-Taiwan	10	9	13	13	15	14	21	25
		state-owned	361	399	430	426	400	341	297	291
	Total	437	491	544	562	547	536	589	613	
% within Region	Ownership	private	0.00%	0.00%	0.20%	1.10%	1.10%	1.30%	1.20%	1.60%
		collective	3.40%	2.90%	2.40%	2.50%	2.40%	1.90%	1.70%	1.60%
		mixed	6.40%	6.30%	8.30%	10.00%	12.10%	21.60%	34.50%	36.40%
		foreign	5.30%	7.70%	7.70%	8.40%	8.60%	9.00%	8.70%	8.80%
		HK-M-Taiwan	2.30%	1.80%	2.40%	2.30%	2.70%	2.60%	3.60%	4.10%
		state-owned	82.60%	81.30%	79.00%	75.80%	73.10%	63.60%	50.40%	47.50%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

**Table 2.24 Total Assets by Ownership and Year for Jilin (RMB Billion)**

**Region Jilin**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Ownership	private	0	0	0	0	1	1	1	1
		collective	4	4	4	4	4	5	4	3
		mixed	5	7	14	11	22	59	73	80
		foreign	10	12	5	15	18	19	20	25
		HK-M-Taiwan	2	2	3	3	5	4	4	4
		state-owned	148	169	194	186	195	177	163	158
	Total	169	194	220	219	245	265	265	271	
% within Region	Ownership	private	0.00%	0.00%	0.00%	0.00%	0.40%	0.40%	0.40%	0.40%
		collective	2.40%	2.10%	1.80%	1.80%	1.60%	1.90%	1.50%	1.10%
		mixed	3.00%	3.60%	6.40%	5.00%	9.00%	22.30%	27.50%	29.50%
		foreign	5.90%	6.20%	2.30%	6.80%	7.30%	7.20%	7.50%	9.20%
		HK-M-Taiwan	1.20%	1.00%	1.40%	1.40%	2.00%	1.50%	1.50%	1.50%
		state-owned	87.60%	87.10%	88.20%	84.90%	79.60%	66.80%	61.50%	58.30%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

**Table 2.25 Total Assets by Ownership and Year for Heilongjiang (RMB Billion)**

**Region Heilongjiang**

			<b>YEAR</b>							
			<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Count	Ownership	private	0	0	0	0	0	1	1	1
		collective	3	4	4	4	3	3	3	3
		mixed	15	16	23	54	37	148	170	168
		foreign	5	4	9	9	10	13	10	15
		HK-M-Taiwan	3	3	5	7	7	6	5	5
		state-owned	197	199	212	219	233	174	144	171
	Total	223	226	253	293	290	345	333	363	
% within Region	Ownership	private	0.00%	0.00%	0.00%	0.00%	0.00%	0.30%	0.30%	0.30%
		collective	1.30%	1.80%	1.60%	1.40%	1.00%	0.90%	0.90%	0.80%
		mixed	6.70%	7.10%	9.10%	18.40%	12.80%	42.90%	51.10%	46.30%
		foreign	2.20%	1.80%	3.60%	3.10%	3.40%	3.80%	3.00%	4.10%
		HK-M-Taiwan	1.30%	1.30%	2.00%	2.40%	2.40%	1.70%	1.50%	1.40%
		state-owned	88.30%	88.10%	83.80%	74.70%	80.30%	50.40%	43.20%	47.10%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

**Tabel 2.26 Employment by Ownership and Year for Liaoning, Jilin, Heilongjiang and the Whole Sample (Thousand Person)**

				YEAR									
				1995	1996	1997	1998	1999	2000	2001	2002		
Ownership	private	Count	Region	Liaoning	0	1	14	35	31	33	27	41	
				Jilin	0	0	0	2	6	4	6	8	
				Heilongjiang	0	0	0	1	1	3	5	8	
				Total	2	10	24	113	176	293	542	734	
			% within Region	Region	Liaoning	0.00%	0.00%	1%	1.40%	1.70%	1.90%	1.70%	2.80%
				Jilin	0.00%	0.00%	0.00%	0.20%	0.60%	0.40%	0.70%	1.00%	
			Heilongjiang	0.00%	0.00%	0.00%	0.10%	0.10%	0.20%	0.40%	0.70%		
			Total	0.00%	0.00%	0.10%	0.30%	0.60%	1.00%	2.00%	2.80%		
		collective	Count	Region	Liaoning	203	171	167	153	120	113	81	68
				Jilin	78	68	63	60	51	49	36	29	
				Heilongjiang	50	49	48	40	22	24	16	19	
				Total	3324	3395	3238	2755	2548	2216	1806	1627	
	% within Region		Region	Liaoning	6.40%	5.30%	5.50%	6.20%	6.50%	6.40%	5.20%	4.70%	
			Jilin	5.60%	5.10%	4.70%	5.00%	4.90%	5.10%	4.20%	3.80%		
		Heilongjiang	2.20%	2.40%	2.40%	2.10%	1.30%	1.60%	1.20%	1.60%			
		Total	8.70%	9.00%	8.90%	8.20%	8.30%	7.90%	6.70%	6.20%			
	mixed	Count	Region	Liaoning	206	239	276	251	227	258	397	416	
			Jilin	36	39	71	67	88	138	153	159		
			Heilongjiang	84	83	98	195	152	268	328	322		
			Total	2149	2366	3098	3812	4425	5507	6902	7427		
		% within Region	Region	Liaoning	6.50%	7.40%	9.10%	10.20%	12.30%	14.70%	25.60%	28.60%	
			Jilin	2.60%	2.90%	5.30%	5.60%	8.40%	14.40%	17.90%	20.70%		
		Heilongjiang	3.70%	4.10%	4.90%	10.10%	9.30%	18.00%	25.00%	26.90%			
		Total	5.60%	6.30%	8.50%	11.40%	14.40%	19.50%	25.50%	28.10%			
	foreign	Count	Region	Liaoning	52	64	65	77	65	86	97	111	
			Jilin	13	18	18	16	28	28	30	31		
			Heilongjiang	17	16	27	19	22	28	15	19		



		Total		701	912	1040	1056	1196	1306	1673	1881
	% within Region	Region	Liaoning	1.60%	2.00%	2.10%	3.10%	3.50%	4.90%	6.30%	7.60%
			Jilin	0.90%	1.30%	1.30%	1.30%	2.70%	2.90%	3.50%	4.00%
			Heilongjiang	0.70%	0.80%	1.30%	1.00%	1.30%	1.90%	1.10%	1.60%
		Total		1.80%	2.40%	2.80%	3.20%	3.90%	4.60%	6.20%	7.10%
HK-M-Taiwan	Count	Region	Liaoning	33	32	34	28	30	40	37	44
			Jilin	5	6	7	10	10	11	9	8
			Heilongjiang	13	12	16	25	16	15	14	17
		Total		708	787	819	1037	1064	1129	1482	1684
	% within Region	Region	Liaoning	1.00%	1.00%	1.10%	1.10%	1.60%	2.30%	2.40%	3.00%
			Jilin	0.40%	0.40%	0.50%	0.80%	1.00%	1.10%	1.10%	1.00%
			Heilongjiang	0.60%	0.60%	0.80%	1.30%	1.00%	1.00%	1.10%	1.40%
		Total		1.90%	2.10%	2.20%	3.10%	3.50%	4.00%	5.50%	6.40%
state-owned	Count	Region	Liaoning	2687	2716	2468	1923	1380	1229	912	774
			Jilin	1252	1212	1177	1038	863	730	620	532
			Heilongjiang	2137	1884	1814	1649	1430	1151	934	811
		Total		31337	30046	28363	24711	21246	17771	14675	13072
	% within Region	Region	Liaoning	84.50%	84.30%	81.60%	77.90%	74.50%	69.90%	58.80%	53.20%
			Jilin	90.50%	90.20%	88.10%	87.00%	82.50%	76.00%	72.60%	69.40%
			Heilongjiang	92.90%	92.20%	90.60%	85.50%	87.00%	77.30%	71.20%	67.80%
		Total		82.00%	80.10%	77.50%	73.80%	69.30%	63.00%	54.20%	49.50%
Total	Count	Region	Liaoning	3181	3223	3024	2467	1853	1759	1551	1454
			Jilin	1384	1343	1336	1193	1046	960	854	767
			Heilongjiang	2301	2044	2003	1929	1643	1489	1312	1196
		Total		38221	37516	36582	33484	30655	28222	27080	26425
	% within Region	Region	Liaoning	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
			Jilin	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
			Heilongjiang	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
		Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Tabel 2.27 Employment by Ownership and Year for the Whole Sample (Thousand Person)**

**Total**

			<b>YEAR</b>							
			<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Count	Ownership	private	2	10	24	113	176	293	542	734
		collective	3324	3395	3238	2755	2548	2216	1806	1627
		mixed	2149	2366	3098	3812	4425	5507	6902	7427
		foreign	701	912	1040	1056	1196	1306	1673	1881
		HK-M-Taiwan	708	787	819	1037	1064	1129	1482	1684
		state-owned	31337	30046	28363	24711	21246	17771	14675	13072
	Total		38221	37516	36582	33484	30655	28222	27080	26425
% within Region	Ownership	private	0.00%	0.00%	0.10%	0.30%	0.60%	1.00%	2.00%	2.80%
		collective	8.70%	9.00%	8.90%	8.20%	8.30%	7.90%	6.70%	6.20%
		mixed	5.60%	6.30%	8.50%	11.40%	14.40%	19.50%	25.50%	28.10%
		foreign	1.80%	2.40%	2.80%	3.20%	3.90%	4.60%	6.20%	7.10%
		HK-M-Taiwan	1.90%	2.10%	2.20%	3.10%	3.50%	4.00%	5.50%	6.40%
		state-owned	82.00%	80.10%	77.50%	73.80%	69.30%	63.00%	54.20%	49.50%
	Total		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Tabel 2.28 Employment by Ownership and Year for Liaoning (Thousand Person)**

**Region Liaoning**

			<b>YEAR</b>							
			<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Count	Ownership	private	0	1	14	35	31	33	27	41
		collective	203	171	167	153	120	113	81	68
		mixed	206	239	276	251	227	258	397	416
		foreign	52	64	65	77	65	86	97	111
		HK-M-Taiwan	33	32	34	28	30	40	37	44
		state-owned	2687	2716	2468	1923	1380	1229	912	774
	Total	3181	3223	3024	2467	1853	1759	1551	1454	
% within Region	Ownership	private	0.00%	0.00%	0.50%	1.40%	1.70%	1.90%	1.70%	2.80%
		collective	6.40%	5.30%	5.50%	6.20%	6.50%	6.40%	5.20%	4.70%
		mixed	6.50%	7.40%	9.10%	10.20%	12.30%	14.70%	25.60%	28.60%
		foreign	1.60%	2.00%	2.10%	3.10%	3.50%	4.90%	6.30%	7.60%
		HK-M-Taiwan	1.00%	1.00%	1.10%	1.10%	1.60%	2.30%	2.40%	3.00%
		state-owned	84.50%	84.30%	81.60%	77.90%	74.50%	69.90%	58.80%	53.20%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

**Tabel 2.29 Employment by Ownership and Year for Jilin (Thousand Person)**

**Region Jilin**

			<b>YEAR</b>							
			<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
Count	Ownership	private	0	0	0	2	6	4	6	8
		collective	78	68	63	60	51	49	36	29
		mixed	36	39	71	67	88	138	153	159
		foreign	13	18	18	16	28	28	30	31
		HK-M-Taiwan	5	6	7	10	10	11	9	8
		state-owned	1252	1212	1177	1038	863	730	620	532
	Total	1384	1343	1336	1193	1046	960	854	767	
% within Region	Ownership	private	0.00%	0.00%	0.00%	0.20%	0.60%	0.40%	0.70%	1.00%
		collective	5.60%	5.10%	4.70%	5.00%	4.90%	5.10%	4.20%	3.80%
		mixed	2.60%	2.90%	5.30%	5.60%	8.40%	14.40%	17.90%	20.70%
		foreign	0.90%	1.30%	1.30%	1.30%	2.70%	2.90%	3.50%	4.00%
		HK-M-Taiwan	0.40%	0.40%	0.50%	0.80%	1.00%	1.10%	1.10%	1.00%
		state-owned	90.50%	90.20%	88.10%	87.00%	82.50%	76.00%	72.60%	69.40%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

**Tabel 2.30 Employment by Ownership and Year for Heilongjiang (Thousand Person)**

**Region Heilongjiang**

			YEAR							
			1995	1996	1997	1998	1999	2000	2001	2002
Count	Ownership	private	0	0	0	1	1	3	5	8
		collective	50	49	48	40	22	24	16	19
		mixed	84	83	98	195	152	268	328	322
		foreign	17	16	27	19	22	28	15	19
		HK-M-Taiwan	13	12	16	25	16	15	14	17
		state-owned	2137	1884	1814	1649	1430	1151	934	811
	Total	2301	2044	2003	1929	1643	1489	1312	1196	
% within Region	Ownership	private	0.00%	0.00%	0.00%	0.10%	0.10%	0.20%	0.40%	0.70%
		collective	2.20%	2.40%	2.40%	2.10%	1.30%	1.60%	1.20%	1.60%
		mixed	3.70%	4.10%	4.90%	10.10%	9.30%	18.00%	25.00%	26.90%
		foreign	0.70%	0.80%	1.30%	1.00%	1.30%	1.90%	1.10%	1.60%
		HK-M-Taiwan	0.60%	0.60%	0.80%	1.30%	1.00%	1.00%	1.10%	1.40%
		state-owned	92.90%	92.20%	90.60%	85.50%	87.00%	77.30%	71.20%	67.80%
	Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

**Table 3.1 Regression with NEP Dummy: Model 1**

Dependent Variable	Model 1a	Model 1b	Model 1c	Model 1d
	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA
Constant	0.49335 [33.29]***	1.36524 [30.28]***	-0.09919 [26.88]***	0.04905 [7.99]***
ln(L)	0.00376 [2.81]***	-0.08062 [19.16]***	0.00535 [15.54]***	0.00108 [1.89]*
ln(Kp/L)	0.05269 [17.35]***	0.29281 [32.93]***	0.01021 [14.01]***	-0.00539 [4.44]***
ln(Kf/L)	0.00501 [8.26]***	0.04724 [28.26]***	-0.00023 [1.64]	-0.00417 [17.81]***
ln(M/L)	0.87244 [798.59]***			
Ind3Concentration	-0.31402 [4.42]***	-1.28929 [6.26]***	-0.05811 [3.40]***	-0.22037 [7.75]***
FIE_ind2MKT_Share	0.10977 [5.83]***	0.45869 [8.13]***	0.05633 [12.07]***	0.08845 [11.39]***
type=Private	0.13061 [18.74]***	0.5733 [28.89]***	0.0347 [20.65]***	0.08202 [29.03]***
type=Collective	0.08674 [24.22]***	0.38259 [35.69]***	0.02581 [28.83]***	0.05685 [38.18]***
type=Mixed	0.08774 [28.69]***	0.37199 [42.67]***	0.02145 [29.20]***	0.04335 [35.53]***
type=Foreign	0.12769 [17.29]***	0.80864 [36.25]***	0.0227 [12.33]***	0.04563 [14.91]***
type=HK-Taiwan	0.09971 [13.48]***	0.63969 [28.59]***	0.01775 [9.60]***	0.03812 [12.40]***
year=1995	0.00977 [3.85]***	-0.00225 [0.33]	0.00985 [17.31]***	-0.00332 [3.49]***
year=1997	0.01108 [4.43]***	-0.03482 [5.17]***	-0.00414 [7.40]***	-0.00629 [6.74]***
year=1998	0.0005 [0.19]	-0.05057 [7.20]***	-0.01065 [18.24]***	-0.01326 [13.59]***
year=1999	0.04853 [18.01]***	0.04065 [5.61]***	-0.00521 [8.58]***	-0.00379 [3.73]***
year=2000	0.16124 [58.02]***	0.12642 [16.96]***	0.00036 [0.57]	0.00405 [3.86]***

year=2001	0.15106 [52.46]***	0.18025 [23.20]***	-0.00233 [3.56]***	0.01083 [9.90]***
year=2002	0.16724 [56.48]***	0.26932 [33.57]***	-0.00117 [1.73]*	0.01701 [15.06]***
nep=NorthEast	-0.09966 [22.35]***	-0.44324 [29.15]***	-0.01984 [16.30]***	-0.04023 [20.11]***
Observations	172174	161622	172174	169687
Number of Firm	44906	43541	44906	44552

1. Absolute value of z statistics in brackets.
2. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.
3. Coefficients for ind2 and the interaction terms between ind2 and ln(Kp/L) are not reported here.
4. The base for comparing the coefficients of various dummies is type=SOE, year=96, ind2=17, nep=the rest of China other than the three Northeast provinces.

**Table 3.2 Differences in Performance Implied by Model 1**

Dependent Variable	Model 1a	Model 1b	Model 1c	Model 1d
	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA
nep=Rest	0.00%	0.00%	0.00%	0.00%
nep=NorthEast	-9.97%	-44.32%	-1.98%	-4.02%
type=SOE	0.00%	0.00%	0.00%	0.00%
type=Private	13.06%	57.33%	3.47%	8.20%
type=Collective	8.67%	38.26%	2.58%	5.69%
type=Mixed	8.77%	37.20%	2.15%	4.34%
type=Foreign	12.77%	80.86%	2.27%	4.56%
type=HK-Taiwan	9.97%	63.97%	1.78%	3.81%
year=1995	0.98%	-0.23%	0.99%	-0.33%
year=1996	0.00%	0.00%	0.00%	0.00%
year=1997	1.11%	-3.48%	-0.41%	-0.63%
year=1998	0.05%	-5.06%	-1.07%	-1.33%
year=1999	4.85%	4.07%	-0.52%	-0.38%
year=2000	16.12%	12.64%	0.04%	0.41%
year=2001	15.11%	18.03%	-0.23%	1.08%
year=2002	16.72%	26.93%	-0.12%	1.70%



**Table 3.3 Regression with NEP Dummy Interactions: Model 2**

Dependent Variable	Model 2a	Model 2b	Model 2c	Model 2d
	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA
Constant	0.49819 [33.42]***	1.39205 [30.70]***	-0.09932 [26.73]***	0.04993 [8.08]***
ln(L)	0.00389 [2.91]***	-0.0802 [19.06]***	0.00532 [15.44]***	0.00106 [1.85]*
ln(Kp/L)	0.05284 [17.41]***	0.29212 [32.86]***	0.01035 [14.19]***	-0.00532 [4.38]***
ln(Kf/L)	0.00464 [7.21]***	0.04609 [26.04]***	-0.00034 [2.30]**	-0.00426 [17.14]***
ln(M/L)	0.8724 [798.42]***			
Ind3Concentration	-0.28766 [4.05]***	-1.23731 [6.01]***	-0.05361 [3.14]***	-0.21104 [7.42]***
FIE_ind2MKT_Share	0.11154 [5.92]***	0.46038 [8.16]***	0.05689 [12.18]***	0.08961 [11.52]***
type=Private	0.13084 [17.67]***	0.57918 [27.53]***	0.03631 [20.29]***	0.08742 [29.02]***
type=Collective	0.08307 [22.31]***	0.38373 [34.47]***	0.02624 [28.15]***	0.05814 [37.50]***
type=Mixed	0.08574 [26.80]***	0.3696 [40.57]***	0.02168 [28.19]***	0.04472 [35.00]***
type=Foreign	0.12312 [16.31]***	0.79997 [35.12]***	0.02298 [12.20]***	0.04649 [14.85]***
type=HK-Taiwan	0.09645 [12.82]***	0.63124 [27.74]***	0.01754 [9.31]***	0.03824 [12.21]***
year=1995	0.01359 [5.01]***	-0.00345 [0.47]	0.01019 [16.75]***	-0.00257 [2.53]**
year=1997	0.01145 [4.30]***	-0.03767 [5.29]***	-0.00486 [8.17]***	-0.0066 [6.64]***
year=1998	0.00026 [0.09]	-0.0555 [7.48]***	-0.01139 [18.37]***	-0.01429 [13.81]***
year=1999	0.04643 [16.35]***	0.03349 [4.41]***	-0.00613 [9.58]***	-0.00498 [4.66]***
year=2000	0.15894 [54.33]***	0.11729 [15.00]***	-0.00067 [1.01]	0.00238 [2.16]**
year=2001	0.14943 [49.39]***	0.17452 [21.44]***	-0.00302 [4.40]***	0.00949 [8.27]***
year=2002	0.16519 [53.16]***	0.26226 [31.25]***	-0.00192 [2.71]***	0.01573 [13.28]***
nep=NorthEast	-0.17174 [10.14]***	-0.82657 [14.38]***	-0.01989 [4.41]***	-0.05594 [7.53]***
(nep=NorthEast)*ln(Kf/L)	0.00385 [2.07]**	0.01021 [1.93]*	0.00103 [2.38]**	0.0007 [0.97]
type=Private & nep=NorthEast	-0.00909 [0.42]	-0.08038 [1.29]	-0.01522 [2.95]***	-0.04916 [5.71]***
type=Collective & nep=NorthEast	0.03532 [2.71]***	-0.06115 [1.50]	-0.00454 [1.36]	-0.01557 [2.83]***
type=Mixed & nep=NorthEast	0.01814 [1.71]*	0.02683 [0.86]	-0.0013 [0.50]	-0.01391 [3.23]***
type=Foreign & nep=NorthEast	0.04361 [2.77]***	0.12508 [2.42]**	-0.00252 [0.60]	-0.00701 [1.02]
type=HK-Taiwan & nep=NorthEast	0.03497 [1.78]*	0.12632 [2.03]**	0.00466 [0.92]	0.00176 [0.21]
year=1995 & nep=NorthEast	-0.02934 [3.84]***	0.01082 [0.50]	-0.00235 [1.37]	-0.00549 [1.92]*

year=1997 & nep=NorthEast	-0.00271 [0.35]	0.0249 [1.14]	0.00622 [3.58]***	0.00259 [0.89]
year=1998 & nep=NorthEast	0.00474 [0.58]	0.05367 [2.36]**	0.00674 [3.69]***	0.01004 [3.28]***
year=1999 & nep=NorthEast	0.02595 [2.95]***	0.08238 [3.41]***	0.00926 [4.67]***	0.01312 [3.97]***
year=2000 & nep=NorthEast	0.02902 [3.21]***	0.10688 [4.32]***	0.01041 [5.10]***	0.01814 [5.32]***
year=2001 & nep=NorthEast	0.02254 [2.41]**	0.07199 [2.82]***	0.00655 [3.10]***	0.01399 [3.97]***
year=2002 & nep=NorthEast	0.02778 [2.91]***	0.0894 [3.40]***	0.00715 [3.30]***	0.0129 [3.57]***
nep=NorthEast & ind2=6	-0.08999 [2.03]**	-0.10073 [0.67]	-0.03757 [3.06]***	-0.0161 [0.80]
nep=NorthEast & ind2=7	0.34536 [3.59]***	0.85809 [2.84]***	0.09624 [3.79]***	0.17658 [4.00]***
nep=NorthEast & ind2=8	-0.01048 [0.11]	0.09267 [0.31]	-0.03151 [1.25]	-0.01592 [0.38]
nep=NorthEast & ind2=9	-0.04564 [1.02]	0.31114 [2.11]**	-0.0237 [1.99]**	-0.00182 [0.09]
nep=NorthEast & ind2=10	0.05106 [1.03]	0.69608 [4.28]***	0.00085 [0.07]	0.04804 [2.24]**
nep=NorthEast & ind2=12	0.10659 [2.17]**	0.39139 [2.42]**	0.0317 [2.37]**	0.01715 [0.78]
nep=NorthEast & ind2=13	0.1085 [4.84]***	0.48435 [6.30]***	-0.00467 [0.77]	-0.00441 [0.44]
nep=NorthEast & ind2=14	0.12745 [4.39]***	0.69003 [6.99]***	-0.00047 [0.06]	0.05036 [3.90]***
nep=NorthEast & ind2=15	0.1376 [5.11]***	0.53944 [5.97]***	-0.00193 [0.26]	0.04357 [3.63]***
nep=NorthEast & ind2=16	-0.01332 [0.19]	0.28766 [1.21]	-0.00909 [0.46]	0.01128 [0.35]
nep=NorthEast & ind2=18	0.05828 [1.63]	0.15219 [1.29]	-0.02846 [3.00]***	-0.00838 [0.53]
nep=NorthEast & ind2=19	-0.0213 [0.42]	-0.44036 [2.57]**	-0.04751 [3.53]***	-0.06519 [2.95]***
nep=NorthEast & ind2=20	0.04624 [1.09]	-0.11504 [0.81]	-0.02168 [1.88]*	0.00154 [0.08]
nep=NorthEast & ind2=21	0.11408 [1.84]*	0.72116 [3.44]***	0.01041 [0.62]	0.04791 [1.74]*
nep=NorthEast & ind2=22	0.03749 [1.17]	0.22537 [2.06]**	-0.00452 [0.52]	0.0026 [0.18]
nep=NorthEast & ind2=23	0.05351 [1.24]	0.20619 [1.44]	0.00271 [0.23]	0.02577 [1.34]
nep=NorthEast & ind2=24	-0.10307 [1.23]	0.23015 [0.76]	-0.01716 [0.75]	-0.01155 [0.31]
nep=NorthEast & ind2=25	0.20425 [4.45]***	0.95513 [6.46]***	0.01264 [1.04]	0.0656 [3.29]***
nep=NorthEast & ind2=26	0.02978 [1.28]	0.23362 [2.95]***	-0.01233 [1.96]**	0.00474 [0.46]
nep=NorthEast & ind2=27	0.14882 [5.67]***	0.54044 [6.08]***	0.00369 [0.52]	0.0347 [2.95]***
nep=NorthEast & ind2=28	-0.00551 [0.11]	-0.1372 [0.82]	-0.01151 [0.86]	-0.01382 [0.63]
nep=NorthEast & ind2=29	0.02385 [0.55]	0.40935 [2.75]***	-0.00657 [0.55]	-0.00476 [0.24]
nep=NorthEast & ind2=30	0.06221 [2.07]**	0.24435 [2.41]**	-0.00249 [0.31]	0.01258 [0.95]
nep=NorthEast & ind2=31	0.01936 [0.87]	0.43474 [5.70]***	0.005 [0.82]	0.02766 [2.78]***

nep=NorthEast & ind2=32	-0.00762 [0.25]	0.36575 [3.51]***	-0.00393 [0.48]	0.01381 [1.03]
nep=NorthEast & ind2=33	-0.02081 [0.57]	0.1735 [1.43]	-0.00945 [0.97]	0.00567 [0.35]
nep=NorthEast & ind2=34	0.05463 [1.96]**	0.16986 [1.84]*	-0.00725 [0.98]	-0.00373 [0.31]
nep=NorthEast & ind2=35	0.04257 [1.92]*	0.2979 [3.95]***	-0.01056 [1.77]*	0.01586 [1.61]
nep=NorthEast & ind2=36	0.00405 [0.18]	0.09746 [1.25]	-0.00885 [1.44]	0.00683 [0.67]
nep=NorthEast & ind2=37	0.07817 [3.22]***	0.4296 [5.23]***	0.00321 [0.49]	0.02727 [2.54]**
nep=NorthEast & ind2=40	0.03294 [1.35]	0.21248 [2.57]**	-0.00716 [1.09]	0.00724 [0.67]
nep=NorthEast & ind2=41	0.06555 [2.36]**	0.37193 [3.94]***	0.00001 [0.00]	0.02543 [2.07]**
nep=NorthEast & ind2=42	-0.00253 [0.07]	-0.0368 [0.29]	-0.00126 [0.12]	0.03125 [1.86]*
nep=NorthEast & ind2=44	0.04313 [1.56]	0.44358 [4.76]***	-0.01607 [2.13]**	0.01004 [0.81]
nep=NorthEast & ind2=45	0.01819 [0.29]	0.11434 [0.51]	0.02044 [1.18]	0.03414 [1.20]
nep=NorthEast & ind2=46	0.09508 [1.77]*	0.421 [2.30]**	-0.00294 [0.19]	0.03087 [1.25]
Observations	172174	161622	172174	169687
Number of Firm	44906	43541	44906	44552

1. Absolute value of z statistics in brackets.

2. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

3. Coefficients for ind2 and the interaction terms between ind2 and ln(Kp/L) are not reported here.

4. The base for comparing the coefficients of various dummies is type=SOE, year=96, ind2=17, nep=the rest of China other than the three Northeast provinces.

**Table 3.4 NorthEast Regional Effects Implied by Model 2, after Controlling for Other Effects**

Dependent Variable	Model 2a	Model 2b	Model 2c	Model 2d
	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA
type=SOE & nep=NorthEast	0.00%	0.00%	0.00%	0.00%
type=Private & nep=NorthEast	-0.91%	-8.04%	-1.52%	-4.92%
type=Collective & nep=NorthEast	3.53%	-6.12%	-0.45%	-1.56%
type=Mixed & nep=NorthEast	1.81%	2.68%	-0.13%	-1.39%
type=Foreign & nep=NorthEast	4.36%	12.51%	-0.25%	-0.70%
type=HK-Taiwan & nep=NorthEast	3.50%	12.63%	0.47%	0.18%
year=1995 & nep=NorthEast	-2.93%	1.08%	-0.24%	-0.55%
year=1996 & nep=NorthEast	0.00%	0.00%	0.00%	0.00%
year=1997 & nep=NorthEast	-0.27%	2.49%	0.62%	0.26%
year=1998 & nep=NorthEast	0.47%	5.37%	0.67%	1.00%
year=1999 & nep=NorthEast	2.60%	8.24%	0.93%	1.31%
year=2000 & nep=NorthEast	2.90%	10.69%	1.04%	1.81%
year=2001 & nep=NorthEast	2.25%	7.20%	0.66%	1.40%
year=2002 & nep=NorthEast	2.78%	8.94%	0.72%	1.29%
nep=NorthEast & ind2=[number in the left column]				
[07]Petroleum Extraction	34.54%	85.81%	9.62%	17.66%
[25]Petroleum Processing	20.43%	95.51%	1.26%	6.56%
[14]Food Production	12.75%	69.00%	-0.05%	5.04%
[10]Nonmetal Mining	5.11%	69.61%	0.09%	4.80%
[21]Furniture	11.41%	72.12%	1.04%	4.79%
[15]Beverage	13.76%	53.94%	-0.19%	4.36%
[27]Medical	14.88%	54.04%	0.37%	3.47%
[45]Gas Production	1.82%	11.43%	2.04%	3.41%
[42]Instruments	-0.25%	-3.68%	-0.13%	3.13%
[46]Tap Water	9.51%	42.10%	-0.29%	3.09%
[31]NonmetalProducts	1.94%	43.47%	0.50%	2.77%
[37]Transport Equipment	7.82%	42.96%	0.32%	2.73%
[23]Printing	5.35%	20.62%	0.27%	2.58%
[41]Electronic and Telecom	6.56%	37.19%	0.00%	2.54%
[12]Timber Logging	10.66%	39.14%	3.17%	1.72%
[35]Ordinary Machinery	4.26%	29.79%	-1.06%	1.59%
[32]Pressing Ferrous	-0.76%	36.58%	-0.39%	1.38%
[30]Plastic	6.22%	24.44%	-0.25%	1.26%
[16]Tobacco	-1.33%	28.77%	-0.91%	1.13%
[44]Electric Power	4.31%	44.36%	-1.61%	1.00%
[40]Electric Equipment	3.29%	21.25%	-0.72%	0.72%
[36]Special Equipment	0.41%	9.75%	-0.89%	0.68%
[33]Pressing of Nonferrous	-2.08%	17.35%	-0.95%	0.57%
[26]Raw Chemical	2.98%	23.36%	-1.23%	0.47%
[22]Papermaking	3.75%	22.54%	-0.45%	0.26%
[20]Timber	4.62%	-11.50%	-2.17%	0.15%
[17]Textile	0.00%	0.00%	0.00%	0.00%
[09]Nonferrous Mining	-4.56%	31.11%	-2.37%	-0.18%
[34]Metal Products	5.46%	16.99%	-0.73%	-0.37%
[13]Food Processing	10.85%	48.44%	-0.47%	-0.44%
[29]Rubber	2.39%	40.94%	-0.66%	-0.48%
[18]Garments	5.83%	15.22%	-2.85%	-0.84%
[24]Cultural	-10.31%	23.02%	-1.72%	-1.16%
[28]Chemical Fiber	-0.55%	-13.72%	-1.15%	-1.38%
[08]Ferrous Mining	-1.05%	9.27%	-3.15%	-1.59%
[06]Coal Mining	-9.00%	-10.07%	-3.76%	-1.61%
[19]Leather	-2.13%	-44.04%	-4.75%	-6.52%

**Table 3.5 NorthEast Regional Effects Implied by Model 2, after Controlling for Other Effects**

Dependent Variable	Model 2a	Model 2b	Model 2c	Model 2d	Model 2a	Model 2b	Model 2c	Model 2d
	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA
nep=NorthEast & ind2=[number in the left column]					Ranking by Performance			
[25]Petroleum Processing	20.43%	95.51%	1.26%	6.56%	2	1	4	2
[07]Petroleum Extraction	34.54%	85.81%	9.62%	17.66%	1	2	1	1
[21]Furniture	11.41%	72.12%	1.04%	4.79%	6	3	5	5
[10]Nonmetal Mining	5.11%	69.61%	0.09%	4.80%	16	4	10	4
[14]Food Production	12.75%	69.00%	-0.05%	5.04%	5	5	13	3
[27]Medical	14.88%	54.04%	0.37%	3.47%	3	6	7	7
[15]Beverage	13.76%	53.94%	-0.19%	4.36%	4	7	15	6
[13]Food Processing	10.85%	48.44%	-0.47%	-0.44%	7	8	20	30
[44]Electric Power	4.31%	44.36%	-1.61%	1.00%	18	9	30	20
[31]NonmetalProducts	1.94%	43.47%	0.50%	2.77%	24	10	6	11
[37]Transport Equipment	7.82%	42.96%	0.32%	2.73%	10	11	8	12
[46]Tap Water	9.51%	42.10%	-0.29%	3.09%	9	12	17	10
[29]Rubber	2.39%	40.94%	-0.66%	-0.48%	23	13	21	31
[12]Timber Logging	10.66%	39.14%	3.17%	1.72%	8	14	2	15
[41]Electronic and Telecom	6.56%	37.19%	0.00%	2.54%	11	15	11	14
[32]Pressing Ferrous	-0.76%	36.58%	-0.39%	1.38%	30	16	18	17
[09]Nonferrous Mining	-4.56%	31.11%	-2.37%	-0.18%	35	17	33	28
[35]Ordinary Machinery	4.26%	29.79%	-1.06%	1.59%	19	18	27	16
[16]Tobacco	-1.33%	28.77%	-0.91%	1.13%	32	19	25	19
[30]Plastic	6.22%	24.44%	-0.25%	1.26%	12	20	16	18
[26]Raw Chemical	2.98%	23.36%	-1.23%	0.47%	22	21	29	24
[24]Cultural	-10.31%	23.02%	-1.72%	-1.16%	37	22	31	33
[22]Papermaking	3.75%	22.54%	-0.45%	0.26%	20	23	19	25
[40]Electric Equipment	3.29%	21.25%	-0.72%	0.72%	21	24	22	21
[23]Printing	5.35%	20.62%	0.27%	2.58%	15	25	9	13
[33]Pressing of Nonferrous	-2.08%	17.35%	-0.95%	0.57%	33	26	26	23
[34]Metal Products	5.46%	16.99%	-0.73%	-0.37%	14	27	23	29
[18]Garments	5.83%	15.22%	-2.85%	-0.84%	13	28	34	32
[45]Gas Production	1.82%	11.43%	2.04%	3.41%	25	29	3	8
[36]Special Equipment	0.41%	9.75%	-0.89%	0.68%	26	30	24	22
[08]Ferrous Mining	-1.05%	9.27%	-3.15%	-1.59%	31	31	35	35
[17]Textile	0.00%	0.00%	0.00%	0.00%	27	32	12	27
[42]Instruments	-0.25%	-3.68%	-0.13%	3.13%	28	33	14	9
[06]Coal Mining	-9.00%	-10.07%	-3.76%	-1.61%	36	34	36	36

[20]Timber	4.62%	-11.50%	-2.17%	0.15%	17	35	32	26
[28]Chemical Fiber	-0.55%	-13.72%	-1.15%	-1.38%	29	36	28	34
[19]Leather	-2.13%	-44.04%	-4.75%	-6.52%	34	37	37	37

**Table 3.6 Regression with NEP3 Dummies: Model 3**

Dependent Variable	Model 3a	Model 3b	Model 3c	Model 3d
	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA
Constant	0.49295 [33.26]***	1.365 [30.27]***	-0.09921 [26.88]***	0.0488 [7.95]***
ln(L)	0.0038 [2.84]***	-0.08059 [19.15]***	0.00535 [15.54]***	0.00111 [1.93]*
ln(Kp/L)	0.0527 [17.36]***	0.29278 [32.93]***	0.01021 [14.01]***	-0.00538 [4.43]***
ln(Kf/L)	0.00504 [8.30]***	0.04727 [28.27]***	-0.00023 [1.62]	-0.00415 [17.75]***
ln(M/L)	0.87245 [798.56]***			
Ind3Concentration	-0.31376 [4.42]***	-1.28995 [6.27]***	-0.05814 [3.40]***	-0.22023 [7.75]***
FIE_ind2MKT_Share	0.10985 [5.83]***	0.45887 [8.13]***	0.05634 [12.08]***	0.08851 [11.40]***
<b>nep=LiaoNing</b>	<b>-0.10799</b> [17.90]***	<b>-0.45701</b> [22.07]***	<b>-0.02074</b> [12.57]***	<b>-0.04692</b> [17.32]***
<b>nep=Jiling</b>	<b>-0.09008</b> [10.04]***	<b>-0.44769</b> [14.57]***	<b>-0.01986</b> [8.04]***	<b>-0.03338</b> [8.24]***
<b>nep=Heilongjiang</b>	<b>-0.09137</b> [11.11]***	<b>-0.4132</b> [14.73]***	<b>-0.01809</b> [8.03]***	<b>-0.03283</b> [8.87]***
type=Private	0.131 [18.79]***	0.57384 [28.91]***	0.03473 [20.67]***	0.08229 [29.12]***
type=Collective	0.08695 [24.27]***	0.38291 [35.71]***	0.02583 [28.84]***	0.057 [38.27]***
type=Mixed	0.08781 [28.71]***	0.37207 [42.67]***	0.02145 [29.20]***	0.0434 [35.57]***
type=Foreign	0.12807 [17.33]***	0.80926 [36.26]***	0.02274 [12.35]***	0.04592 [15.00]***
type=HK-Taiwan	0.09997 [13.51]***	0.64005 [28.61]***	0.01777 [9.62]***	0.03832 [12.47]***
year=1995	0.0098 [3.87]***	-0.00223 [0.32]	0.00985 [17.31]***	-0.0033 [3.47]***
year=1997	0.01107 [4.42]***	-0.03484 [5.17]***	-0.00414 [7.40]***	-0.0063 [6.74]***
year=1998	0.00047 [0.18]	-0.05063 [7.21]***	-0.01066 [18.25]***	-0.01328 [13.61]***
year=1999	0.04845 [17.97]***	0.04056 [5.60]***	-0.00522 [8.59]***	-0.00383 [3.77]***
year=2000	0.16116 [57.99]***	0.12634 [16.95]***	0.00035 [0.56]	0.004 [3.82]***
year=2001	0.15098 [52.43]***	0.18016 [23.18]***	-0.00233 [3.56]***	0.01078 [9.86]***
year=2002	0.16714 [56.44]***	0.26921 [33.55]***	-0.00118 [1.74]*	0.01695 [15.01]***
Observations	172174	161622	172174	169687
Number of Firm	44906	43541	44906	44552

1. Absolute value of z statistics in brackets.

2. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

3. Coefficients for ind2 and the interaction terms between ind2 and ln(Kp/L) are not reported here.

4. The base for comparing the coefficients of various dummies is type=SOE, year=96, ind2=17, nep=the rest of China other than the three Northeast provinces.

**Table 3.7 Regression with Place2 Dummies: Model 4**

Dependent Variable	Model 4a	Model 4b	Model 4c	Model 4d
	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA
Constant	0.50412 [32.99]***	1.30122 [28.06]***	-0.0818 [21.44]***	0.0792 [12.52]***
ln(L)	0.00554 [4.12]***	-0.06414 [15.31]***	0.00563 [16.35]***	0.00106 [1.85]*
ln(Kp/L)	0.05239 [17.25]***	0.28366 [32.05]***	0.00996 [13.69]***	-0.00522 [4.31]***
ln(Kf/L)	0.00534 [8.79]***	0.04745 [28.46]***	-0.0001 [0.74]	-0.00391 [16.73]***
ln(M/L)	0.86965 [782.22]***			
Ind3Concentration	-0.31716 [4.47]***	-1.29496 [6.33]***	-0.05573 [3.27]***	-0.21125 [7.47]***
FIE_ind2MKT_Share	0.09928 [5.27]***	0.37894 [6.76]***	0.05529 [11.89]***	0.08807 [11.40]***
type=Private	0.12649 [18.08]***	0.51903 [26.19]***	0.033 [19.61]***	0.07867 [27.85]***
type=Collective	0.07911 [21.63]***	0.31659 [29.14]***	0.02198 [24.11]***	0.04914 [32.49]***
type=Mixed	0.08471 [27.57]***	0.34478 [39.52]***	0.02004 [27.19]***	0.04058 [33.21]***
type=Foreign	0.11789 [15.88]***	0.72508 [32.52]***	0.0208 [11.26]***	0.0458 [14.95]***
type=HK-Taiwan	0.08998 [12.08]***	0.54359 [24.25]***	0.01671 [8.99]***	0.03645 [11.82]***
year=1995	0.00997 [3.94]***	-0.00226 [0.33]	0.0099 [17.40]***	-0.00319 [3.36]***
year=1997	0.01124 [4.50]***	-0.03276 [4.87]***	-0.00404 [7.23]***	-0.00619 [6.64]***
year=1998	0.00136 [0.52]	-0.04339 [6.19]***	-0.01043 [17.87]***	-0.01303 [13.36]***
year=1999	0.04978 [18.46]***	0.05104 [7.06]***	-0.00506 [8.33]***	-0.00378 [3.72]***
year=2000	0.16264 [58.50]***	0.13891 [18.66]***	0.00054 [0.87]	0.00407 [3.88]***
year=2001	0.15245 [52.86]***	0.19513 [25.14]***	-0.00209 [3.19]***	0.01089 [9.96]***
year=2002	0.16903 [56.98]***	0.28492 [35.55]***	-0.00083 [1.23]	0.01723 [15.26]***
place2=[11]Beijing	0.0108 [1.06]	-0.0271 [0.80]	-0.02852 [10.23]***	-0.06695 [14.68]***
place2=[12]Tianjin	-0.02097 [2.32]**	-0.23176 [7.67]***	-0.02556 [10.38]***	-0.07855 [19.46]***
place2=[13]Hebei	-0.03137 [4.12]***	-0.20426 [8.08]***	-0.01745 [8.37]***	-0.02735 [8.01]***
place2=[14]Shanxi	-0.05583 [4.60]***	-0.46416 [11.52]***	-0.02148 [6.44]***	-0.05086 [9.34]***
place2=[15]InnerMongolia	-0.00317 [0.25]	-0.27733 [6.59]***	-0.02391 [6.91]***	-0.04053 [7.18]***
place2=[21]Laoning	-0.12444 [17.50]***	-0.49673 [20.79]***	-0.04152 [21.47]***	-0.08176 [25.81]***
place2=[22]Jilin	-0.10947 [11.27]***	-0.5118 [15.65]***	-0.04119 [15.52]***	-0.06894 [15.89]***
place2=[23]Heilongjiang	-0.11039 [12.25]***	-0.47932 [15.86]***	-0.0392 [15.97]***	-0.068 [16.92]***
place2=[31]Shanghai	0.02248 [3.22]***	0.2587 [11.21]***	-0.01874 [9.87]***	-0.05346 [17.18]***



place2=[32]Jiangshu	0.0095 [1.63]	0.19219 [10.05]***	-0.01344 [8.47]***	-0.00182 [0.70]
place2=[33]Zhejiang	0.00213 [0.30]	0.18485 [7.96]***	-0.00706 [3.67]***	-0.02981 [9.47]***
place2=[34]Anhui	-0.02454 [2.86]***	-0.16732 [5.90]***	-0.028 [11.98]***	-0.02996 [7.82]***
place2=[35]Fujian	0.06692 [6.75]***	0.18056 [5.56]***	-0.00401 [1.49]	-0.01617 [3.67]***
place2=[36]Jiangxi	-0.0389 [3.43]***	-0.40699 [10.80]***	-0.03474 [11.14]***	-0.05666 [11.11]***
place2=[41]Henan	-0.04444 [5.49]***	-0.28665 [10.64]***	-0.01939 [8.69]***	-0.02571 [7.05]***
place2=[42]Hubei	0.00299 [0.39]	-0.11085 [4.38]***	-0.0205 [9.82]***	-0.02191 [6.38]***
place2=[43]Hunan	-0.06956 [7.94]***	-0.3693 [12.75]***	-0.04391 [18.44]***	-0.06432 [16.51]***
place2=[44]Guangdong	-0.00898 [1.45]	0.1918 [9.39]***	-0.02907 [17.27]***	-0.04078 [14.73]***
place2=[45]Guangxi	-0.02329 [2.46]**	-0.12351 [3.94]***	-0.02604 [10.06]***	-0.04492 [10.62]***
place2=[46]Hainan	-0.06591 [3.23]***	-0.20228 [2.98]***	-0.03955 [7.08]***	-0.0663 [7.26]***
place2=[50]Sichuan+Chongqing	-0.05592 [7.89]***	-0.19127 [8.10]***	-0.0358 [18.53]***	-0.05423 [17.13]***
place2=[52]Guizhou	-0.09138 [5.73]***	-0.31665 [5.89]***	-0.0386 [8.81]***	-0.06961 [9.73]***
place2=[53]Yunnan	-0.015 [1.39]	-0.14561 [4.09]***	-0.02624 [8.92]***	-0.06559 [13.64]***
place2=[54]Tibet+Qinghai+Ningxia	-0.09052 [5.84]***	-0.23178 [4.44]***	-0.03685 [8.75]***	-0.06755 [9.79]***
place2=[61]Shaanxi	-0.09289 [8.68]***	-0.45675 [12.70]***	-0.04295 [14.65]***	-0.07193 [15.02]***
place2=[62]Ganshu	-0.06896 [4.21]***	-0.48836 [8.92]***	-0.04594 [10.17]***	-0.07733 [10.48]***
place2=[65]Xinjiang	-0.08253 [5.40]***	-0.2995 [5.84]***	-0.04139 [9.88]***	-0.08955 [13.10]***
Observations	172174	161622	172174	169687
Number of Firm	44906	43541	44906	44552

1. Absolute value of z statistics in brackets.

2. \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

3. Coefficients for ind2 and the interaction terms between ind2 and ln(Kp/L) are not reported here.

4. The base for comparing the coefficients of various dummies is type=SOE, year=96, ind2=17, place2=[37]Shandong.

**Table 3.8 Regional Performance Differences Implied by Model 4, after Controlling for Other Effects**

Dependent Variable	Model 4a	Model 4b	Model 4c	Model 4d	Model 4a	Model 4b	Model 4c	Model 4d
	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA	ln(Y/L)	ln(VA/L)	OP/TA	IP/TA
	Performance Difference				Rank by Performance			
place2=[37]Shandong	0.00%	0.00%	0.00%	0.00%	7	6	1	1
place2=[32]Jiangshu	0.95%	19.22%	-1.34%	-0.18%	4	2	4	2
place2=[35]Fujian	6.69%	18.06%	-0.40%	-1.62%	1	5	2	3
place2=[42]Hubei	0.30%	-11.09%	-2.05%	-2.19%	5	8	8	4
place2=[41]Henan	-4.44%	-28.67%	-1.94%	-2.57%	16	18	7	5
place2=[13]Hebei	-3.14%	-20.43%	-1.75%	-2.74%	14	14	5	6
place2=[33]Zhejiang	0.21%	18.49%	-0.71%	-2.98%	6	4	3	7
place2=[34]Anhui	-2.45%	-16.73%	-2.80%	-3.00%	13	11	14	8
place2=[15]InnerMongolia	-0.32%	-27.73%	-2.39%	-4.05%	8	17	10	9
place2=[44]Guangdong	-0.90%	19.18%	-2.91%	-4.08%	9	3	16	10
place2=[45]Guangxi	-2.33%	-12.35%	-2.60%	-4.49%	12	9	12	11
place2=[14]Shanxi	-5.58%	-46.42%	-2.15%	-5.09%	17	24	9	12
place2=[31]Shanghai	2.25%	25.87%	-1.87%	-5.35%	2	1	6	13
place2=[50]Sichuan+Chongqing	-5.59%	-19.13%	-3.58%	-5.42%	18	12	18	14
place2=[36]Jiangxi	-3.89%	-40.70%	-3.47%	-5.67%	15	22	17	15
place2=[43]Hunan	-6.96%	-36.93%	-4.39%	-6.43%	21	21	27	16
place2=[53]Yunnan	-1.50%	-14.56%	-2.62%	-6.56%	10	10	13	17
place2=[46]Hainan	-6.59%	-20.23%	-3.96%	-6.63%	19	13	22	18
place2=[11]Beijing	1.08%	-2.71%	-2.85%	-6.70%	3	7	15	19
place2=[54]Tibet+Qinghai+Ningxia	-9.05%	-23.18%	-3.69%	-6.76%	23	16	19	20
<b>place2=[23]Heilongjiang</b>	<b>-11.04%</b>	<b>-47.93%</b>	<b>-3.92%</b>	<b>-6.80%</b>	<b>27</b>	<b>25</b>	<b>21</b>	<b>21</b>
<b>place2=[22]Jilin</b>	<b>-10.95%</b>	<b>-51.18%</b>	<b>-4.12%</b>	<b>-6.89%</b>	<b>26</b>	<b>28</b>	<b>23</b>	<b>22</b>
place2=[52]Guizhou	-9.14%	-31.67%	-3.86%	-6.96%	24	20	20	23
place2=[61]Shaanxi	-9.29%	-45.68%	-4.30%	-7.19%	25	23	26	24
place2=[62]Ganshu	-6.90%	-48.84%	-4.59%	-7.73%	20	26	0	25
place2=[12]Tianjin	-2.10%	-23.18%	-2.56%	-7.86%	11	15	11	26
<b>place2=[21]Laoning</b>	<b>-12.44%</b>	<b>-49.67%</b>	<b>-4.15%</b>	<b>-8.18%</b>	<b>28</b>	<b>27</b>	<b>25</b>	<b>27</b>
place2=[65]Xinjiang	-8.25%	-29.95%	-4.14%	-8.96%	22	19	24	28