

Analysis of Real Tax Burden and Design of Incentive Policies for Manufacturing Listed Companies in Northeast Old Industrial Base

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Abstract: On September 13, 2021, the State Council approved the "14th Five Year Plan for Comprehensive Revitalization of Northeast China", comprehensively assisting in the transformation and upgrading of the manufacturing industry in the old industrial base of Northeast China. In line with national strategies, the three provinces of Heilongjiang, Jilin, and Liaoning have respectively proposed the construction goals of "strong industrial province", "Jilin equipment", and "strong intelligent manufacturing province". This article mainly selects data from listed companies related to the manufacturing industry in the old industrial base of Northeast China, analyzes the true tax burden of enterprises after considering the inclusion of financial subsidy indicators, and designs tax incentive policies based on it.

1. Introduction

The manufacturing industry is an important manifestation of a country's creativity, competitiveness, and comprehensive national strength. The 14th Five Year Plan emphasizes accelerating the construction of a strong manufacturing and quality country, enhancing the competitive advantage of the manufacturing industry, and promoting high-quality development of the manufacturing industry. The report of the 20th National Congress of the Communist Party of China proposes to promote the high-end, intelligent, and green development of the manufacturing industry. The 2023 State Council's "Government Work Report" proposed to prioritize the manufacturing industry in the development of the real economy. Listed companies in the manufacturing industry are industry leaders, and their development cannot be separated from the support of national fiscal and tax policies. ^[1]Their core is true tax burden analysis.

2. Analysis of overall real tax burden indicators

The main financial and tax indicators of listed manufacturing companies in the three northeastern provinces from 2016 to 2022 are analyzed in Table 1:

Table 1: Analysis of Main Financial and Tax Indicators of Manufacturing Listed Companies in the Three Northeast Provinces from 2016 to 2022

Index \ year	2016	2017	2018	2019	2020	2021
Government subsidies account for the total profit(%)	2.90	3.55	4.01	4.79	5.33	3.91
(Taxes and surcharges + income tax expenses) of the total profit(%)	15.86	29.29	34.19	37.09	34.45	39.44
Real tax rate =[(taxes and surcharges + income tax expenses) - government subsidies]/ total profit(%)	12.96	25.74	30.18	32.30	29.12	35.53
Total profit (100 million Yuan)	343.30	249.78	284.72	310.20	381.43	478.25

Data source: Compilation of Annual Report Publicity Data of Listed Companies from 2016 to 2022

From Table 1, it can be seen that the total profit of listed manufacturing companies in the three northeastern provinces of China showed an overall upward trend from 2016 to 2022, dropping from 34.33 billion yuan in 2016 to 24.978 billion yuan in 2017, increasing to 28.472 billion yuan in 2018, and then gradually increasing to 47.825 billion yuan in 2021.^[2]

According to the government subsidy guidelines, enterprises should record the subsidy funds separately in the current period's profit and loss or deferred income. Therefore, the data used in this article comes from the government subsidies disclosed in the notes to the financial statements and included in the current period's profits and losses. From the proportion of government subsidies to total profits, the indicators of manufacturing listed companies in the three northeastern provinces mainly fluctuate between 2.90% and 5.33%, which is relatively moderate. From the indicator of (taxes and surcharges+income tax expenses) accounting for the total profit, the tax burden of listed manufacturing companies in the three northeastern provinces was relatively heavy from 2016 to 2021, increasing from 15.86% in 2016 to 37.09% in 2019, and then decreasing to 34.45% in 2020. In 2021, this indicator reached 39.44%.^[3]

Increasing government subsidies can reduce corporate tax burden to a certain extent, and the calculation formula is as follows:

Real tax rate=[(taxes and surcharges + income tax expenses) - government subsidies]/ total profit

This indicator shows that the selected samples increased from 12.96% in 2016 to 32.30% in 2019, and then decreased to 29.12% in 2020. In 2021, this indicator reached as high as 35.53%. Overall, with the support of government subsidies, the tax burden experienced by enterprises has decreased, but listed manufacturing companies in the three northeastern provinces can still feel significant tax pressure.

3. Analysis of real tax burden indicators by province

The selected samples are classified by region and the main fiscal and tax indicators are compared, as shown in Table 2:

From Table 2, it can be seen that the proportion of government subsidies enjoyed by listed manufacturing companies in Heilongjiang Province in total profits is higher than that of Jilin and Liaoning provinces.^[4]

According to the comparison of the main financial and tax indicators of the three provinces, it can be concluded that the proportion of government subsidies enjoyed by manufacturing listed companies in Heilongjiang Province in total profits is relatively high from 2016 to 2021. It first decreased from 12.25% in 2016 to 7.09% in 2017, then increased to 11.82% in 2018, and gradually decreased to 7.00% from 2019 to 2021. The proportion of government subsidies enjoyed by

manufacturing listed companies in Jilin and Liaoning provinces in total profits is relatively low, with the former ranging from 3.15% to 6.15%, and the latter ranging from 1.60% to 5.20%.

Table 2: Comparison of Main Financial and Tax Indicators of Manufacturing Listed Companies in Three Northeast Provinces by Region from 2016 to 2021

District	Index \ Year	2016	2017	2018	2019	2020	2021
Heilongjiang Province	Government subsidies account for the total profit(%)	12.25	7.09	11.82	10.57	9.53	7.00
	(Taxes and surcharges + income tax expenses) of the total profit(%)	25.95	28.18	26.03	25.93	24.59	21.98
	Real tax burden rate =[(Taxes and surcharges + income tax expenses) - government subsidies]/ Total profit(%)	13.70	21.09	14.21	15.36	15.05	14.98
Jilin Province	Government subsidies account for the total profit(%)	6.15	3.87	4.91	3.15	4.32	3.55
	(Taxes and surcharges + income tax expenses) of the total profit(%)	16.08	15.19	17.33	17.30	15.00	15.17
	Real tax burden rate =[(Taxes and surcharges + income tax expenses) - government subsidies]/ Total profit(%)	9.93	11.32	12.42	14.15	10.69	11.63
Liaoning Province	Government subsidies account for the total profit(%)	1.60	2.91	2.72	4.62	5.20	3.70
	(Taxes and surcharges + income tax expenses) of the total profit(%)	15.03	34.31	39.95	45.22	42.29	48.44
	Real tax burden rate =[(Taxes and surcharges + income tax expenses) - government subsidies]/ Total profit(%)	13.43	31.40	37.23	40.60	37.09	44.74

Data source: Compilation of annual report disclosure data for listed companies from 2016 to 2021.

From the perspective of the proportion of (taxes and surcharges+income tax expenses) to the total profit, the changes in Heilongjiang Province and Jilin Province were relatively stable between 2016 and 2021. The former varied between 21.98% -28.18%, while the latter varied between 15.00% -17.33%. The proportion of (taxes and surcharges+income tax expenses) to the total profit of listed manufacturing companies in Heilongjiang Province was significantly higher than that of Jilin Province. However, Liaoning Province has undergone significant changes, increasing from 15.03% in 2016 to 45.22% in 2019, slightly decreasing to 42.29% in 2020, and continuing to rise to the highest value of 48.44% in 2021, indicating a relatively high tax burden pressure in Liaoning Province.

From the perspective of the true tax burden rate without government subsidies, due to the high proportion of government subsidies enjoyed by Heilongjiang Province in total profits, the difference in the true tax burden rate between Heilongjiang Province and Jilin Province is significantly reduced, indicating that government subsidies can effectively reduce corporate tax burden to a certain extent. ^[5]The true tax burden rate of Liaoning Province from 2017 to 2021 is the highest among the three provinces, and the overall trend is increasing year by year, compared to the heavier tax burden pressure on manufacturing listed companies in Liaoning Province.

4. Analysis of income tax indicators and tax Burden

Income tax is an important component of the tax burden of manufacturing enterprises, mainly manifested as corporate income tax, personal income tax, etc. This article mainly analyzes corporate income tax and adopts the following calculation formula:

$$\text{Income tax burden rate} = \text{Income tax payable for the period} / \text{total profit for the period} \times 100\%$$

wherein, current income tax payable = current income tax expense + deferred income tax expense = current income tax expense + increase in deferred income tax liabilities - increase in deferred income tax assets

The income tax burden of listed manufacturing companies in the three Northeast provinces from 2016 to 2021 is shown in Table 3:

Table 3: Analysis of Regional Income Tax Burden of Manufacturing Listed Companies in the Three Northeast Provinces from 2016 to 2021

Unit: %

Region \ Year	2016	2017	2018	2019	2020	2021
Heilongjiang Province	18.94	20.08	20.31	17.20	17.98	16.46
Jilin Province	10.04	11.53	12.73	11.91	13.40	11.86
Liaoning Province	4.03	9.39	13.66	21.95	24.09	20.05
The Northeast Three Provinces	5.80	10.94	14.11	19.22	21.08	18.05

Data source: Compilation of annual report disclosure data for listed companies from 2016 to 2021.

From Table 3, it can be seen that the income tax burden of listed manufacturing companies in the three northeastern provinces showed an overall upward trend from 2016 to 2021. Over the past six years, the income tax burden has continuously increased from the lowest level of 5.80% in 2016 to the highest level of 21.08% in 2020, which is more than three times the income tax burden in 2016, and then slightly decreased to 18.05% in 2021. Compared to the turnover tax burden, it is still at a relatively high level, with a heavier income tax burden. From a regional perspective, there are differences in the changes in income tax burden among the three regions. The income tax burden of listed manufacturing companies in Heilongjiang Province and Jilin Province tends to stabilize from 2016 to 2021, with the former consistently higher than the latter, while the income tax burden and total income tax burden of listed manufacturing companies in Liaoning Province tend to converge, slightly lower than the total income tax burden in the first three years and slightly higher than the total income tax burden in the latter three years.

The sample of listed companies mentioned above is further divided into resource based industries, medium tech industries, and high-tech industries by industry type. The income tax burden of listed manufacturing companies in the three northeastern provinces from 2016 to 2021 is compared, as shown in Table 4:

Table 4 Analysis of Income Tax Burden by Industry Type of Listed Manufacturing Companies in Northeast China's Three Provinces from 2016 to 2021

Unit:%

Industry type \ Year	2016	2017	2018	2019	2020	2021
Resource-based industries	18.21	23.19	20.40	13.98	17.85	26.21
Medium tech industry	2.47	6.64	12.29	21.96	24.31	18.93
High-tech industries	13.90	13.04	16.10	15.01	13.24	13.34
All industries	5.80	10.94	14.11	19.22	21.08	18.05

Data source: Compilation of annual report disclosure data for listed companies from 2016 to 2021.

As can be seen from Table 4, the income tax burden changes of the manufacturing industries in the three northeastern provinces are different after they are divided into four industries.

5. Design of tax incentive policies

5.1 Apply for the first trial in the three northeastern provinces

In order to support time-honored enterprises in Northeast China, we apply for the state to give the three provinces of Northeast China a first try. Especially for the equipment manufacturing industry in the three northeastern provinces, if we want to promote the high-end and intelligent transformation of the manufacturing industry, we can first pilot the value-added tax reform. For example, we can lower the value-added tax rate for some advanced manufacturing enterprises by one level. For the high-end manufacturing industry and advanced manufacturing industry, we can refer to the value-added tax preferential policies that encourage the development of software majors and integrated circuit industries. After the actual tax burden rate exceeds 3%, we can implement "immediate collection and refund", to reduce the turnover tax burden of high-tech listed companies in the manufacturing industry. Alternatively, the income tax rate for encouraged manufacturing enterprises can be implemented at 15%.

5.2 Conversion of income tax for joint-stock companies

If the double tax rate system is adopted first to reduce the double taxation of dividends, and after the income tax system is further improved and matured, the credit system can be used to completely eliminate double taxation, such as allowing loss carryover of personal income tax.

5.3 Reform of personal income tax

If high-end talents and scarce talents are introduced and working in the three free trade zones and new areas of Northeast China, the actual personal income tax burden exceeding 15% will be subsidized or paid on their behalf.

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