

Comparative Analysis of Actual Tax Burden and Effective Tax Rate of Representative Listed Companies in Heilongjiang Province's Equipment Industry

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Abstract: As the core pillar of modern industry, the equipment industry plays crucial role in the global economy. In China's "14th Five-Year Plan", the equipment industry has been listed as one of the national key emerging industries to be developed. The 20th National Congress of the Communist Party of China proposed to promote new industrialization and high-quality development of manufacturing industry. The Third Plenary Session of the 20th Central Committee of the Communist Party of China further emphasized the importance of high-quality development of equipment manufacturing industry, to position equipment manufacturing industry as the pillar industry of national economic development, and accelerate the formation of an equipment manufacturing industry system with international competitiveness. This paper explores the path to help the high-quality development of the equipment industry through the comparative analysis of the real tax burden and the actual tax burden of the equipment industry in Heiljiang Province.

Key words: Equipment Industry; Listed Companies; Tax Burden Analysis

1. Introduction

The equipment manufacturing industry is a core part of industry, bearing the heavy

responsibility of providing the workpiece machine for departments of the national economy and driving the development of related industries. It is an important cornerstone to support the overall national strength. In September 2023 during his inspection in Heilongjiang, General Secretary Xi Jinping emphasized that the high-quality development of manufacturing industry, especially equipment manufacturing industry, is the most aspect of China's high-quality economic development and is indispensable for a modernized power. Heilongjiang Province should build on the existing industrial foundation, solid promote the high-quality development of advanced manufacturing industry, accelerate the upgrading of traditional manufacturing industry, firmly grasp the strategic positioning in the overall national development, focus on the task of promoting high-quality development, and build and strengthen the national heavy equipment production and manufacturing base. Therefore, it is imperative to study how to promote the highquality development of the equipment manufacturing industry through tax incentive policies and regulatory design.

2. Analysis of Tax Indicators of Equipment Manufacturing Industry

Taking China First Heavy and Zhongzheng Stock as examples, see Table 1, 2.

Table 1. Analysis of Main Tax Indicators of China First Heavy from 2016 to 2023

Indicator	2016	2017	2018	2019	2020	2021	2022	2023
Taxes and surcharges (ten thousand yuan)	8 167	13 610	12 280	9 725	11 260	13 330	17 170	10 930
Income tax expense (ten thousand yuan)	24 290	2 976	5 441	5 162	9 189	2 972	7 225	4 597
Government grants (thousand yuan)	9 612	2 703	7 955	8 066	12 309	6 448	7 159	10 866
Government grants/total profit(%)	---	25.67	66.07	44.81	55.12	39.51	40.61	-4.03
Income tax expense/total profit (%)	---	28.26	45.19	28.68	41.14	18.21	40.98	-1.71
(Taxes and surcharges income tax)/total profit (%)	---	157.51	147.18	82.71	91.56	99.89	138.37	-5.76

Effective tax rate = [(Taxes and surcharges income tax expense) - Government grants]/total profit (%)	---	131.84	81.11	21.23	36.44	60.38	97.76	---
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Table 2. Analysis of Main Tax Indicators of Zhongzhi Shares from 2016 to 2023

Indicator	2016	2017	2018	2019	2020	2021	2022	2023
Taxes and surcharges (ten thousand yuan)	1 101	2 063	1 825	1 778	1 970	1 935	2 276	7 029
Income tax expense (ten thousand yuan)	8 156	9 288	8 445	9124	7 611	10 120	-472	438
Government grants (thousand yuan)	1 153.97	785.91	4 922.12	2 474.41	2 728.32	11 267.49	4 015.94	3 637.87
Government grants/total profit(%)	2.20	1.40	8.30	3.60	3.30	11.10	10.47	10.35
Income tax expense/total profit (%)	15.65	16.95	14.20	13.43	9.13	9.97	---	1.24
(Taxes and surcharges income tax)/total profit (%)	17.76	20.72	17.27	16.04	11.49	11.88	4.71	21.25
Effective tax rate = [(Taxes and surcharges income tax expense) - Government grants]/total profit (%)	13.91	16.28	15.07	18.13	20.40	7.98	-5.77	10.89

From the typical listed manufacturing companies in the three northeastern provinces, we can see that Dalian Heavy Industry and AVIC Shenyang are examples. See 3, 4.

Table 3. Analysis of Main Tax Indicators of Dalian Heavy Industry from 2016 to 2023

Indicator	2016	2017	2018	2019	2020	2021	2022	2023
Taxes and surcharges (ten thousand yuan)	6 095.25	7 807.26	5 683.67	6 680.56	6 741.19	6 888.64	7 795.00	8 304.00
Income tax expense (ten thousand yuan)	711.22	9 195.97	1 117.09	1 497.12	6 142.06	6 505.37	2 077.00	4 225.00
Government grants (thousand yuan)	8 803.2	6 271.72	5 671.59	2 890.44	3 221.51	6 623.17	3 033.00	2 071.52
Government grants/total profit(%)	542.35	62.32	420.57	56.71	32.08	40.53	9.92	5.11
Income tax expense/total profit (%)	43.82	91.37	82.80	29.37	61.91	39.81	6.79	10.42
(Taxes and surcharges income tax)/total profit (%)	419.33	168.95	504.30	160.45	128.27	81.97	32.29	30.91
Effective tax rate = [(Taxes and surcharges income tax expense) - Government grants]/total profit (%)	-123.01	106.63	83.73	103.74	96.20	41.44	22.37	25.80

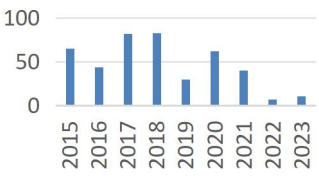
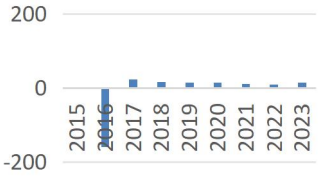
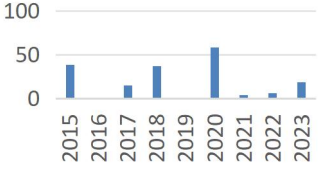
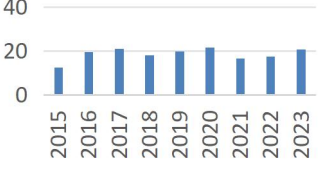
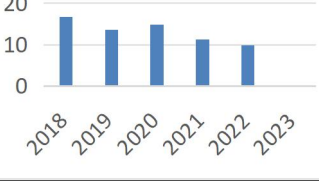
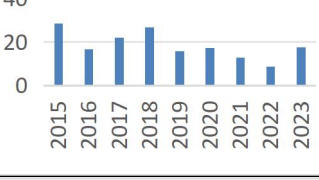
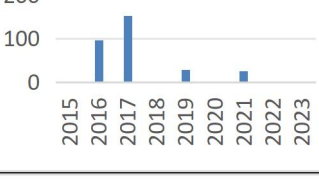
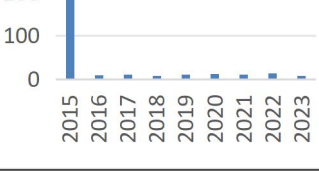
Table 4. Analysis of Main Tax Indicators of Aviation Industry Shenyang Aircraft Corporation from 2016 to 2023

Indicator	2016	2017	2018	2019	2020	2021	2022	2023
Taxes and surcharges (ten thousand yuan)	3 328	4 895	3 351	3 788	3 666	3 954	20 560	13 690
Income tax expense (ten thousand yuan)	9 047	10 490	11 890	13 350	25 440	16 770	29 770	38 540
Government grants (thousand yuan)	12 343	6 746	395 205	480 915	426 233	97 645	11872	12449
Government grants/total profit(%)	60.82	0.83	45.72	47.28	24.52	5.24	4.55	3.67
Income tax expense/total profit (%)	14.00	12.98	13.76	13.17	14.64	9.00	11.40	11.35
(Taxes and surcharges income tax)/total profit (%)	19.14	19.03	17.63	16.90	16.75	11.09	19.27	15.38
Effective tax rate = [(Taxes and surcharges income tax expense) - Government grants]/total profit (%)	-56.52	12.58	-28.09	-30.44	-7.78	5.85	14.73	11.71

3. Analysis of the Effective Tax Rates of Some Listed Companies in the Equipment Manufacturing Industry

The effective tax rates of some listed companies in the equipment industry are shown Table 5.

Table 5. Effective Tax Rates (%) of Some Listed Companies in the Equipment Industry from 2015 to 2023

Company Name	2015	2016	2017	2018	2019	2020	2021	2022	2023	effective tax rate
Dalian Heavy Industry(002204)	64.67	43.82	81.44	82.84	29.37	61.91	39.81	6.80	10.42	
Sany Heavy Industry(600031)	--	-160.13	22.37	16.51	14.69	14.41	11.04	8.88	13.36	
Taiyuan Heavy Industry(600169)	38.45	--	14.85	37.20	--	57.98	3.70	6.06	18.22	
Tongyu Heavy Industry(300185)	12.46	19.48	20.83	17.99	19.74	21.46	16.47	17.51	20.63	
Tosan Heavy Industry(001226)				16.72	13.64	14.80	11.24	9.90	--	
Zhenhua Heavy Industry(600320)	28.53	16.68	21.89	26.67	15.87	17.14	12.72	8.80	17.65	
China Heavy Industry(601989)	--	96.61	153.05	--	28.37	--	25.74	--	--	
Xugong Machinery(000425)	190.33	9.71	10.87	7.19	11.14	12.81	10.47	14.18	7.78	

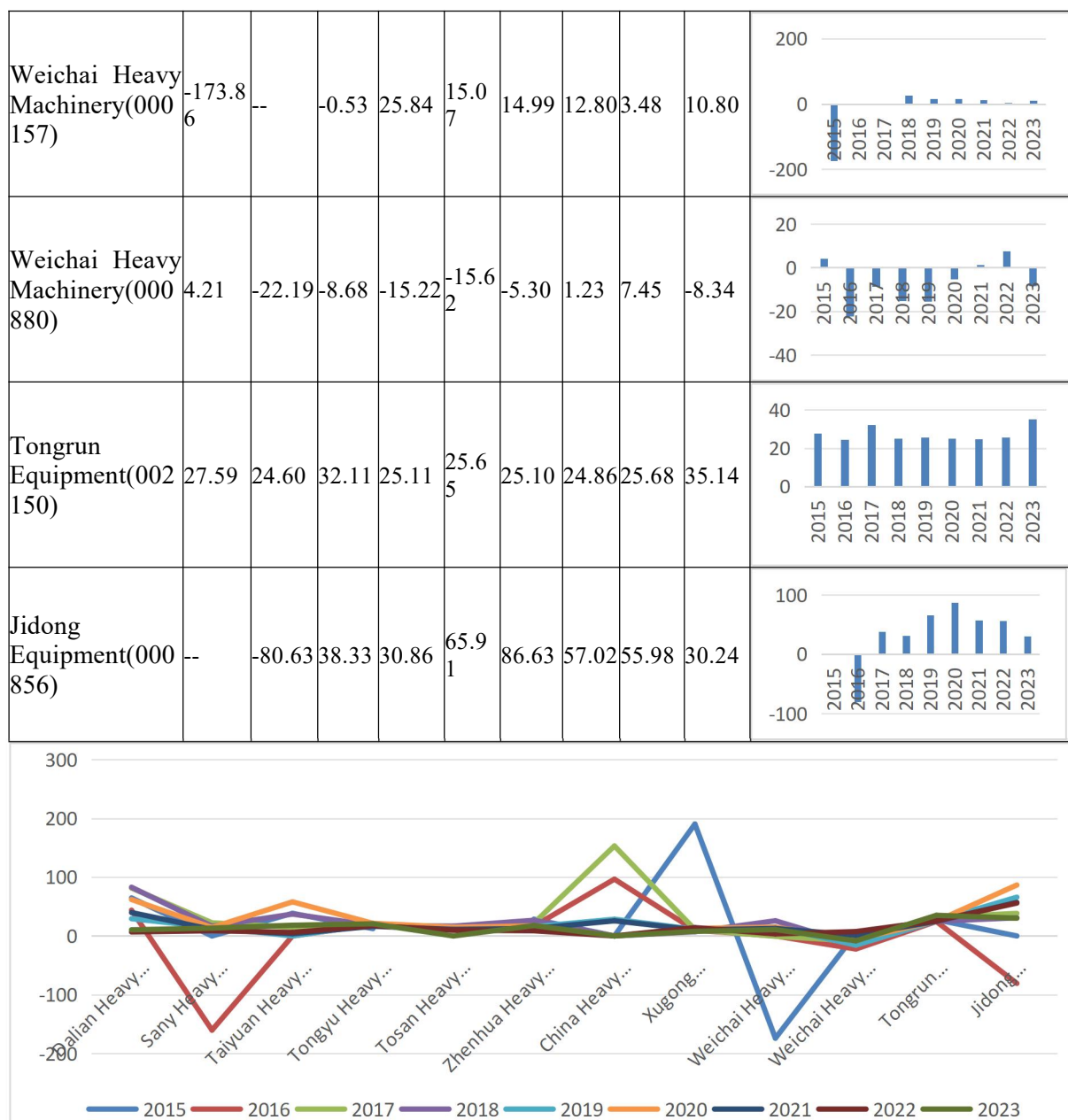


Figure 1. Effective Tax Rates of Listed Companies in the Equipment Manufacturing Industry

4. Conclusion

In view of the insufficient incentive effect of the current tax policy on the results of corporate R&D, or even the blank of incentives, the role of tax policy in promoting the development of traditional advantageous industries is relatively weak. In view of this, the following new tax incentives and regulatory designs are proposed: namely, applying for pilot projects to take the lead, for the state to grant the traditional advantageous industries in the Northeast old industrial base priority in piloting new tax policies, such as for leading

enterprises like China First Heavy, bin Electric, Harbin Boiler, Harbin First Machinery, Zhongchao Qiqi, Qi Zhong CNC, Zhongzhiares, etc., whose single products produced do not meet the conditions of the first machine (set) policy or involve confidential products, have a low degree of market, and product pricing is not the real price formed under a fully competitive market mechanism, it is possible to consider implementing the advanced manufacturing policy on a trial basis, or on the principle of progressive tax rates, designing tax rates based on the ability to increase value or gross profit margin: if the value-added rate

or gross profit margin below 10%, the value-added tax rate shall be implemented at the lowest level; the corporate income tax system should be reformed to transition from the system to the attribution system or the dual tax rate system. For example, for a joint stock company to distribute dividends, the portion received by the shareholders shall be at a reduced rate of 10% or exempted; loss carry-forward shall be supplemented with a forward 3-year carry-forward; and policies to encourage leading industries with distinctive advantages should be introduced in a timely manner, such as encouraging "smart equipment " and so on.

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