



Research on the Tax Burden of the Real Estate Industry under the Background of Tax Reduction and Fee Reduction

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Abstract. The real estate industry, as a backbone industry of the national economy, whether its tax burden changes are reasonable under the background of tax reduction and fee reduction not only directly affects the behavioral choices of industry market entities, but also affects macroeconomic growth. The article selects 68 real estate companies listed on the Shanghai and Shenzhen Stock Exchanges and uses their financial reports from 2015 to 2020 as samples to empirically analyze the relationship between enterprise size, capital intensity, debt paying ability, profitability, and actual tax burden of enterprises. Finally, based on the previous analysis, relevant countermeasures and suggestions are proposed to reduce the tax burden on Chinese real estate companies.

Keywords: Reduce taxes and fees; Real estate industry; tax burden;

1 Introduction

Since the 2008 financial crisis, the global economy has been recovering amidst twists and turns. In terms of international trade, unilateralism and protectionism have emerged, and trade frictions between China and the United States have continued to ferment. China is facing a deteriorating international trade environment. In terms of the domestic economy, the implementation of a long-term development strategy that focuses on supply side structural reform and promotes high-quality economic development has made it difficult to maintain the short-term development strategy that was originally driven by investment. The downward pressure on the domestic economy is high, especially the burden on physical economies such as manufacturing, making development difficult.

In 2018, the State Administration of Taxation proposed the policy of "reducing taxes and fees", providing policy support for the long-term development of the economy. The policy of reducing taxes and fees has improved the overall economic level by reducing the tax burden on enterprises, stimulating investment and economic development.^[1] It can be seen that the "tax reduction and fee reduction" policy has played a significant role in China's economic development. However, the impact of tax and fee reductions on different industries varies. Due to the nature of the real estate industry and its

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important role in the national economy,^[2] this article selects the real estate industry as the research object to analyze the effectiveness of tax and fee reduction policies, and proposes a series of policy recommendations based on this.

2 Current situation of tax burden in the real estate industry

The article selects the corporate income tax burden of the real estate industry to calculate its tax burden level.^[3] The sample of the article was selected from the real estate listed companies evaluated by the China Real Estate Industry Association based on their comprehensive strength in 2020. After excluding some Hong Kong listed companies and companies with incomplete data, income tax analysis was conducted on the top 10 real estate listed companies. The following financial data were all sourced from the Shenzhen Securities and Credit Data Service Platform on CNINFO.

Table 1. Change in corporate income tax burden of various enterprises from 2017 to 2020 compared to the previous year

Enterprise Name	2017	2018	2019	2020
Vanke A	1.21	0.37	-0.29	-0.96
Poly Real Estate	-0.89	0.09	0.83	0.55
New City Holdings	1.16	1.36	-1.35	-1.25
Merchants Shekou	0.84	0.50	-0.65	-1.89
Jindi Group	1.15	0.08	0.43	-0.68
Sunshine City	0.98	0.25	-0.39	0.04
Jinke Shares	0.52	1.00	0.03	-0.10
Blue light development	-0.58	0.73	0.79	-0.69
Initial Stock	-0.18	0.10	1.24	-0.83
Joy City	-0.30	1.34	0.77	-1.60

From Table 1, it can be seen that between 2017 and 2020, 40% of real estate enterprises had a decrease in tax burden, while 60% of enterprises had an increase in tax burden. However, based on the average trend of changes in corporate income tax burden, it can be found that the tax burden only slightly increased in 2018. Although the tax burden was still positive in 2019, it began to show a downward trend compared to the previous year, and even decreased to a negative value by 2020. This indicates that for the selected sample enterprises, the tax reduction and fee reduction policy has indeed played a role since its introduction in 2018, reducing the tax burden on real estate enterprises.

3 Empirical Analysis of the Impact of Tax Reduction and Fee Reduction on the Tax Burden of the Real Estate Industry

3.1 Sample selection and data sources

The empirical analysis sample of the article is selected from 68 real estate companies listed on the Shanghai and Shenzhen Stock Exchanges, and the analysis object is the annual financial reports. The financial data of the sample companies are all sourced from the annual financial statements of NetEase Finance from 2015 to 2020.

3.2 Indicator selection

The tax burden level of taxpayers is generally reflected by the actual burden rate, which is the ratio of the actual tax paid by taxpayers to their actual income during a certain period of time. The article uses the actual tax payable of the enterprise in the current period and the total operating income of the enterprise to represent the actual tax burden rate (ETRS) of the enterprise and uses it as the dependent variable.^[4] The explanatory variable situation is shown in Table 2.

Table 2. Variable Description

Variable Type	Variable Name	Variable Symbolic	Variable Description
Explained Variable	Actual tax burden rate of enterprises	ETRS	tax payable/ gross revenue
	Enterprise size	Size	Ln total assets
	Capital intensity	Capital	(fixed assets+construction in progress)/ total assets
Explanatory variable	Asset liability ratio	Le1	total liabilities/ total assets
	Current ratio	Le2	current assets/current liabilities
	Profitability	Prof	net profit/total assets

3.3 Regression model

Based on the previous analysis, the following regression model can be obtained.

$$ETRS_{it} = \alpha + \beta_1 Size_{it} + \beta_2 Capital_{it} + \beta_3 Lev1_{it} + \beta_4 Lev2_{it} + \beta_5 Prof_{it} + \varepsilon_{it}$$

In the regression model above, i represents the real estate enterprise; t represents the year; $ETRS_{it}$ represents the actual tax burden rate of the i -th real estate

enterprise in the t -th year; $Size_{it}$ represents the scale of the i -th real estate enterprise in the t -th year; $Capital_{it}$ represents the i -th real estate enterprise in the t -th year; $Lev1_{it}$ represents the asset liability ratio of the i -th real estate enterprise in the t -th year; $Lev2_{it}$ represents the current ratio of the i -th real estate enterprise in the t -th year; $Prof_{it}$ represents the profitability of the i -th real estate enterprise in the t -th year. α is the constant term of the multiple regression equation, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ is the estimated coefficient of each variable, and ε_{it} is the random term.

4 Regression results and analysis

4.1 Multiple regression results

From the regression results in Table 3, it can be seen that, it can be seen that R^2 is 0.7212, indicating that the estimated regression equation can better fit the sample data. The F-value is 97.5737, and the p-value is 0.0000, which is significant at the 1% significance level. The model also passed the test. After conducting the Cochrane Octet iteration method, the DW statistic is 2.0169, and the original assumption of autocorrelation can be rejected. The equation does not have autocorrelation problems.

Table 3. Regression Results

Variable	c	Size	Capital	Le1	Le2	Prof
Coeff	3.5873***	-0.1086***	0.5698***	0.0769	0.1327	0.2842***
t-Stat	3.2177	-3.5558	3.5959	0.5842	0.1148	4.2577
R-squared=0.7212						
F-statistic=97.5737 Prob (F-statistic) =0.0000						
Durbin-Watson stat=2.0169						

4.2 Regression result analysis

From the perspective of enterprise scale, the coefficient of enterprise scale is negative, indicating a negative correlation between enterprise scale and the actual tax burden rate of real estate enterprises. This is because compared to small-scale enterprises, large-scale enterprises can use their own influence to engage in political lobbying, or use their abundant cash flow to hire tax talents for tax planning and other related work to reduce tax burden,^[5] and their actual tax burden rate is also lower than small-scale enterprises. However, from the empirical results, it can be seen that although there is a negative correlation between enterprise size and the actual tax burden rate of real estate

enterprises, the explanatory power of enterprise size is the weakest compared to other explanatory variables.

From the perspective of capital intensity. The coefficient of asset intensity is positive, indicating a positive correlation between capital intensity and the actual tax burden rate of real estate enterprises. Due to the large fixed assets investment of real estate enterprises, although the pre tax deduction is indeed conducive to reducing their tax burden,^[6] if the enterprises choose the accelerated depreciation method or the straight-line method to accrue depreciation, due to the severe restrictions of the tax law, the preferential tax policies of enterprises in other aspects will be reduced, which also makes the capital intensity and the actual tax burden rate of enterprises present a positive correlation.

In terms of solvency, the asset liability ratio coefficient is positive, indicating a positive correlation between the asset liability ratio and the actual tax burden rate of real estate enterprises. However, the results did not pass the t-test, indicating that its impact is not significant. The current ratio coefficient is positive, indicating a positive correlation between the current ratio and the actual tax burden rate of real estate enterprises, but the results also did not pass the t-test. The empirical results can to some extent indicate that the short-term debt financing decisions of enterprises have no significant impact on the actual tax burden rate, and have not reduced the tax burden level of real estate enterprises. This indicates that enterprises have not yet found a suitable method to use short-term debt financing for tax savings.

From the perspective of profitability, the coefficient of return on equity is positive, indicating a positive correlation between profitability and the actual tax burden rate of real estate enterprises. The reason may be that the stronger the profitability of a company, the more it will be regulated by the tax authorities. Therefore, the higher the profitability, the higher the actual tax burden rate of the company.

5 Countermeasures and suggestions

5.1 Optimize tax categories related to the real estate industry

The taxes involved in the real estate industry include value-added tax, corporate income tax, land value-added tax, real estate tax, deed tax, stamp tax, etc. These taxes involve more in the transaction process and less in the retention process. Therefore, government departments can choose to reduce the tax burden in the transaction process to reduce the burden on enterprises, such as merging the deed tax and stamp tax in the purchase process into one tax category.

5.2 Simplify tax collection and management methods

Due to the excessive variety of taxes involved in the real estate industry, the appropriateness of tax collection and management methods also has a significant impact on the tax burden of the real estate industry. Government departments can consider simplifying the tax collection and management methods in the real estate industry on the basis

of establishing and improving relevant tax regulatory mechanisms. This not only reduces the workload of government departments, but also reduces the related expenses and human resource waste of real estate enterprises in tax declaration and other aspects.

5.3 Effective utilization of capital intensity by enterprises

From the empirical analysis results above, it can be seen that capital intensity has the strongest explanatory power on the actual tax burden rate, and there is a positive correlation. This indicates that while the fixed assets and construction in progress of enterprises are increasing year by year, the actual tax burden rate of real estate enterprises is also increasing. This means that enterprises have not effectively utilized fixed asset depreciation for tax planning work. Therefore, in future work, enterprises can focus on the tax reduction effect of fixed asset input tax deduction. At the same time, enterprises should invest in fixed assets investment moderately and never over develop, which not only wastes human and material resources, but also may reduce the efficiency of asset utilization.

5.4 Improve the debt paying ability of enterprises

The empirical analysis results indicate that although there is a positive correlation between the solvency of enterprises and the actual tax burden rate, it has not passed the significance test. This indicates that although the increase in the asset liability ratio and current ratio of a company increases its actual tax burden rate, the impact is not significant. Therefore, in terms of debt repayment ability, enterprises can reduce their tax burden by appropriately reducing their asset liability ratio and current ratio.

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