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Impact of Tax Incentive Policies on Corporate Financial Performance: Based on Data from Listed Companies from 2012-2016

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Abstract: In recent years, to promote the transformation and upgrading of enterprises and achieve high-quality economic development, China has continuously implemented tax incentive policies, which play an important role in stimulating enterprises to improve management capabilities and financial performance. This paper studies whether tax incentive policies affect the financial performance of enterprises. Based on previous literature, we select the financial data of A-share listed companies in the Cathay database from 2012 to 2016 as samples, considering companies with year-end tax rates below 25% as enjoying tax incentives. Using the model constructed in this paper for regression analysis, it is found that tax incentive policies indeed improve corporate financial performance. Due to industry characteristics and development differences, the promotion effect of tax incentive policies on corporate financial performance varies across industries, thereby providing policy suggestions for optimizing China's tax incentive policies and promoting corporate performance.

Keywords: Tax Incentives, Financial Performance, Industry Characteristics, Ownership Concentration.

1. Introduction

After the 19th National Congress of the Communist Party of China outlined the 14th Five-Year Plan and the long-term goals for 2035, the strategic focus of China's economic development shifted towards building a new development pattern centered on domestic circulation while promoting mutual reinforcement between domestic and international circulation. This strategy aims to address the complex and ever-changing external environment brought about by economic globalization, particularly the challenges and obstacles posed by Western countries led by the United States to Chinese enterprises. In this context, how Chinese enterprises can maintain a steady pace of development in fierce market competition and enhance their financial performance in the constantly evolving global economic environment has become a pressing issue.

As the main actors in the market economy, the improvement of corporate financial performance is not only crucial for the survival and development of the enterprises themselves but also an important indicator of the strengthening of national economic power. Taxation, being a significant cost in business operations, directly affects a company's cash flow and profitability, which in turn impacts investment decisions and long-term development strategies. Therefore, the optimization and adjustment of tax policies are of great significance for stimulating corporate vitality and promoting the improvement of corporate financial performance.

In recent years, the State Taxation Administration has actively promoted the optimization and improvement of tax incentive policies. Measures such as reducing tax rates for technologically advanced manufacturing industries, implementing preferential tax rates for agricultural products, and exempting qualified agricultural producers from value-added tax have effectively reduced the tax burden on enterprises, saving them significant operational costs. The implementation of these tax incentive policies has not only directly alleviated the economic pressure on enterprises but also guided more high-quality resources to flow into high-efficiency industries by promoting the optimization of production activities and enhancing market competitiveness, thereby improving the overall asset allocation efficiency of society.

Moreover, based on principal-agent theory, enterprises often face principal-agent problems in their operations, such as low operational efficiency, information asymmetry, and weak decision-making execution. These issues severely affect the financial performance and market competitiveness of enterprises. By implementing tax incentive policies, enterprises can use the savings from reduced tax expenses to increase managers' salaries, thus motivating their enthusiasm and innovative spirit, which in turn improves management efficiency and decision-making execution, further enhancing the financial performance of the enterprises.

Therefore, this paper poses the following hypothesis: Do tax incentive policies truly promote corporate financial performance?

2. Literature Review

Tax incentive policies, as crucial tools for government economic regulation and promoting corporate development, have long been a focal point in academic research regarding their impact on corporate financial performance. In recent years, with economic globalization and evolving market environments, the effectiveness and mechanisms of tax incentive policies have become hot topics in research. Below are some representative research findings that provide theoretical foundations and empirical support for this study.

Li Qiping (2022) utilized data from 127 listed companies between 2010 and 2020 to empirically analyze the impact of tax incentive policies on corporate operational performance. Li found that tax incentives not only enhance operational efficiency but also effectively reduce overall corporate risks.

This study is significant as it reveals the potential value of tax incentive policies in risk management, offering a new perspective on the relationship between tax incentives and robust corporate operations.

Tang Hongxiang and Li Yinchang (2020) quantitatively analyzed the relationship between tax incentive policies and corporate performance using Return on Assets (ROA) and Return on Equity (ROE) as primary financial performance indicators. Their research results demonstrate a significant positive correlation between tax incentive policies and corporate performance, indicating that tax incentives are effective tools for enhancing corporate financial performance. This study's methodology provides a reliable analytical framework for subsequent research and emphasizes the positive role of tax policies in improving corporate performance.

Cai Chang (2017) conducted an in-depth study on the relationship between property rights, tax burden, and corporate financial performance using data from Shanghai and Shenzhen A-share listed companies between 2008 and 2013. Cai's empirical analysis revealed a significant negative correlation between tax burden and corporate financial performance, highlighting the role of tax burden as a "bridge" in influencing corporate investment decisions, capital structure, and operational efficiency. This study enriches our understanding of how tax burden affects corporate financial decisions and provides crucial reference points for designing tax incentive policies.

These studies analyze the impact of tax incentive policies on corporate financial performance from various perspectives, providing multidimensional references for this study. Building upon these existing research findings, this study aims to further explore the differential effects of tax incentive policies across different industry backgrounds and propose strategies to optimize tax policies to promote long-term corporate development and balance among industries.

3. Case Design

3.1. Variable Definition

Dependent Variable: Corporate Financial Performance (ROE). Referring to relevant studies by domestic and foreign scholars, the return on equity (ROE) is commonly used as an indicator to measure company performance. Return on Equity = Net Profit / Total Equity. It is a comprehensive financial indicator that reflects a company's ability to generate returns using owner's equity, and it indicates the efficiency of a company's financing, investment, and operational activities. The larger this value, the higher the corporate financial performance.

Independent Variable: Tax Incentives (TAX). Dummy variable: Companies with an effective tax rate below 25% at the end of the year are considered to be enjoying tax incentive policies, marked as 1; otherwise, marked as 0.

Control Variables: To better study the impact of tax incentives on corporate financial performance, this paper selects firm size (SIZE), leverage ratio (LEV), and ownership concentration (proportion of shares held by the largest shareholder, TOP1) as control variables.

In summary, the various variable indicators selected in this paper are shown in the table below:

Table 1. Model Variables

Variable Type	Variable Name	Variable Symbol	Variable Definition
Dependent	Return on Equity	ROE	Net profit for the year divided by book value of equity for the year
Explanatory	Tax Incentives	TAX	Recorded as 1 if year-end income tax rate is below 25%, otherwise 0
Control	Enterprise Size	SIZE	Natural logarithm of total assets of the enterprise
	Debt-to-Asset Ratio	LEV	Total liabilities of the enterprise divided by total assets
	Ownership Concentration	TOP1	Proportion of shares held by the largest shareholder

3.2. Model Construction and Variable Selection

In response to the issues raised earlier and drawing from existing literature, this paper proposes the following model design:

$$ROE_{i,t} = \beta_0 + \beta_1 TAX_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 LEV_{i,t} + \beta_4 TOP1_{i,t} + \varepsilon_{i,t}$$

Here, i represents individual firms, t represents years, βi denotes regression coefficients, ε is the random disturbance term, and year effects are controlled.

3.3. Data Source

To effectively and comprehensively investigate the impact of tax incentives on corporate financial performance, this study selects financial data of A-share listed companies from 2012 to 2016 as the research objects, sourced from the Guotai An CSMAR database. During data cleaning, financial industry data, ST-listed companies, and significant missing data for explanatory variables were excluded. Ultimately, a total of 12,802 valid sample data points were obtained. To mitigate the influence of outliers on empirical results, some variables underwent 1% winsorization. Data processing and analysis were conducted using Stata 17.0.

4. Empirical Results and Analysis

4.1. Descriptive Statistics of the Sample

Empirical Results and Analysis

(I) Descriptive Statistics of the Sample

This study comprises 12,802 observed samples. The table 2 below presents the statistical results of each variable.

Table 2. Descriptive Statistics Results.

Variable	N	Mean	p50	SD	Min	Max
ROE	12802	2.205	5.335	63.52	-5342	139.8
TAX	12802	0.582	1	0.493	0	1
SIZE	12802	10.82	10.72	1.032	8.161	16.72
LEV	12802	42.70	41.45	21.55	4.900	90.39
TOP1	12802	35.18	33.27	15.24	0.290	89.99

Based on the table above, the sample consists of 12,802 observations from A-share listed companies during 2012-2016. The average Return on Equity (ROE) is 2.205, with a maximum of 139.8 and a minimum of -5342, indicating significant variation in ROE among companies. Given the sample includes multiple industries, these differences may stem from industry-specific factors influencing ROE disparity.

Looking at the control variables, companies in the sample show similar sizes (SIZE), but substantial variations in Debt-to-Asset Ratios (LEV). Higher LEV indicates greater financial risk for companies. The average Ownership Concentration (TOP1) is 35.18, ranging from 0.290 to 89.99, highlighting considerable diversity in ownership concentration among firms. A well-structured ownership can effectively mitigate agency issues and enhance corporate performance.

4.2. Variable Correlation Analysis

To mitigate the influence of multicollinearity, the study conducted a correlation analysis of the variables, with results presented in Table 3.

Table 3. Correlation Analysis Results

	ROE	TAX	SIZE	LEV	TOP1
ROE	1				
TAX	0.046***	1			
SIZE	0.0130	-0.290***	1		
LEV	-0.124***	-0.308***	0.357***	1	
TOP1	0.045***	-0.075***	0.177***	0.063***	1

Note: ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

According to the results in the table above, the correlation coefficients among variables are all below 0.5, indicating weak correlations. There is a positive and significant correlation between Tax Incentives (TAX) and Return on Equity (ROE) at the 1% level, thereby providing preliminary support for the hypothesis in this study.

The following sections will further examine the presence of multicollinearity among variables using variance inflation factor (VIF) analysis. The analysis results for each explanatory variable are presented in Table 4.

Table 4. VIF Results

Variable	VIF	1/VIF
tax	1.150	0.866
size	1.270	0.788
lev	1.220	0.820
top1	1.040	0.959
Mean VIF	1.440	

According to the results in the table above, the VIF values for all variables are below 10, indicating that there is no multicollinearity among the variables. Therefore, regression analysis can proceed.

4.3. Regression Results and Analysis

4.3.1. Empirical Results

Using processed panel data spanning from 2012 to 2016, totaling 12,802 observations, a multiple regression analysis was conducted using Stata 17.0 to examine the impact of tax incentives on corporate financial performance. The estimated results are presented in Table 5.

Table 5. Empirical Results Analysis

	(1)
VARIABLES	ROE
TAX	3.166***
	(2.83)
SIZE	4.121***
	(4.41)
LEV	-0.422***
	(-6.35)
TOP1	0.178***
	(6.30)
Constant	-29.881*** (-3.47)
Observations	12,802
R-squared	0.023
F test	0
r2_a	0.0219
F	15.68

Based on the empirical results from the table above, the regression coefficient between Tax Incentives (TAX) and Return on Equity (ROE) is 3.166, significant at the 1% level. This indicates that holding other factors constant, if a company benefits from tax incentives (where TAX equals 1), its ROE increases by 3.166 units. This finding suggests that tax incentives significantly enhance corporate financial performance, supporting the hypothesis.

Furthermore, the coefficient for SIZE on ROE is 4.121, significant at the 1% level, indicating that holding other factors constant, a one-unit increase in enterprise size results in a 4.121 unit increase in ROE. Similarly, there is a significant positive correlation between Ownership Concentration (TOP1) and ROE. On the other hand, the relationship between Debt-to-Asset Ratio (LEV) and ROE is significantly negative, indicating that higher leverage leads to lower ROE for companies.

4.3.2. Heterogeneity Analysis

According to the China Securities Regulatory Commission's industry classification, China's industries are roughly categorized into 19 major sectors. Due to differences in industry nature and development levels, the impact of tax

incentives on corporate financial performance varies significantly across industries. For instance, industries like agriculture, forestry, animal husbandry, and fisheries are considered basic industries with longer profit cycles, and thus enjoy substantial tax incentives tailored to their industry characteristics.

Table 6. Industry-specific Regression Results

ROE	TAX
All Industries	3.057** (1.226)
Mining	-8.110 (5.103)
Electricity, Heat, Gas and Water Production and Supply	2.212 (2.940)
Real Estate	-5.905* (3.137)
Construction	3.946** (1.989)
Transportation, Warehousing and Postal Services	-0.624 (2.335)
Education	0.000 (.)
Scientific Research and Technical Services	63.671* (36.284)
Agriculture, Forestry, Animal Husbandry, and Fishery	-1.907 (3.855)
Wholesale and Retail	1.889 (6.622)
Water Conservancy, Environment and Public Facilities Management	-1.023 (1.883)
Healthcare and Social Work	2.047 (7.187)
Culture, Sports and Entertainment	-3.667 (2.941)
Information Transmission, Software and Information Technology Services	36.285** (16.684)
Manufacturing	5.081*** (1.312)
Accommodation and Catering	0.000 (.)
Leasing and Business Services	3.268 (3.659)
Comprehensive	2.315 (7.048)

According to the industry-specific regression results:

In the real estate industry, tax incentives have a significant negative impact on corporate financial performance at the 10% level. In industries with slower development like agriculture, forestry, animal husbandry, and fishery, where significant tax incentives, including zero tax rates, are provided, the impact of tax incentives on innovation investment is not significant.

In contrast, in the construction, scientific research and technical services, information transmission, software and information technology services, and manufacturing industries, tax incentives show a significant positive correlation with corporate financial performance at various levels. This indicates that the impact of tax incentives on corporate financial performance varies across different industries.

5. Conclusion and Policy Recommendations

5.1. Conclusion

This study utilized financial data from A-share listed companies spanning from 2012 to 2016. Return on Equity (ROE) was selected as the dependent variable, with the criterion of companies enjoying tax incentives defined as having an annual income tax rate below 25%. Control variables included enterprise size, debt-to-asset ratio, and ownership concentration. Through multiple regression analysis, the study found that tax incentives enhance corporate financial performance. Additionally, the effectiveness of tax incentives varies across different industries.

5.2. Policy Recommendations

5.2.1. Innovate Tax Incentive Policies for Enhanced Effectiveness:

Implement differentiated tax incentive policies tailored to specific products and demographic groups rather than adopting a uniform approach across industries. This approach can significantly reduce policy implementation costs. Furthermore, enhance the dissemination of tax incentive information, streamline approval processes, and improve service awareness, particularly in agriculture where information barriers exist.

5.2.2. Optimize Ownership Structure for Long-term Development:

The empirical analysis of this study clearly reveals a significant positive correlation between ownership concentration and Return on Equity (ROE). This indicates that an appropriate level of ownership concentration helps improve management efficiency and financial performance. Increasing ownership concentration can enhance the influence of major shareholders in corporate decision-making, thereby more effectively supervising the management, reducing agency costs, and increasing the efficiency of business decisions.

When adjusting their ownership structure, companies should comprehensively consider industry characteristics, company size, and development stages to formulate adjustment strategies that suit their specific circumstances. By introducing long-term investors, optimizing equity distribution, and implementing equity incentive plans, companies can enhance the incentives and constraints on management, ensuring that corporate decisions align with long-term development goals.

To address the principal-agent problem arising from the separation of ownership and control, companies need to establish robust internal supervision mechanisms. This can be achieved by setting up independent boards of directors, strengthening the functions of supervisory boards, and improving internal audit systems. These measures will increase corporate transparency and ensure that management actions align with the interests of all shareholders.

Companies should enhance internal governance efficiency by optimizing decision-making processes, improving information flow, and strengthening employee training. This not only helps reduce internal friction but also promotes quick responses to market changes, enhancing competitiveness.

Through these measures, companies will be able to optimize their internal governance structure, establish effective incentive and restraint mechanisms, promote the rational allocation and efficient use of internal resources, and achieve smooth internal operations, thereby creating greater value for shareholders.

In addition to adjusting ownership structure, companies should also focus on cultivating corporate culture and values.

By establishing the right corporate values, guiding employee behavior, and fostering a positive corporate atmosphere, companies can lay a solid foundation for long-term stable development.

Through these optimization measures, companies can not only improve their governance structure and operational efficiency but also maintain competitiveness in a complex and ever-changing market environment, achieving sustainable development.

5.2.3. Increase Tax Incentives for High-tech and Manufacturing Talent Support:

High-tech industries and manufacturing are crucial engines of economic development, and talent is the core resource driving the growth of these industries. The empirical analysis of this study indicates a significant positive correlation between tax incentive policies and the financial performance of companies in these sectors. This suggests that tax incentives can effectively enhance corporate financial performance, thereby promoting the healthy development of the entire industry.

To further foster the growth of these key industries, the government needs to intensify tax incentives for talent. This not only involves reducing personal income tax rates to alleviate the tax burden on talent but also includes encouraging investment in education and skill training through tax incentives for both companies and individuals. Such policies can attract and retain highly skilled talent while stimulating their innovative potential, providing sustained momentum for the long-term development of the industry.

When formulating tax incentive policies, the government should fully consider the fairness and sustainability of these policies. Ensuring that policies meet current development needs without adversely affecting future fiscal health is crucial. Additionally, tax incentive policies should be integrated with the overall industrial development strategy to create synergistic effects that promote industrial upgrading and optimize the economic structure.

Through these measures, the government can effectively support the development of high-tech industries and manufacturing while ensuring the fairness and sustainability of talent policies, injecting lasting momentum into the nation's long-term economic growth.

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