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Abstract
This paper selects the balance panel data of 327 high-tech enterprises from 2013 to 2017, and explores the incentive effects of three types of government fiscal policies (government subsidies, high-tech enterprise income tax preferential rates and R&D expenses plus deductions) on the innovation performance of high-tech enterprises. The results show that the three types of fiscal incentive policies have a positive effect on the innovation performance of high-tech enterprises. The preferential income tax rate has the strongest incentive effect on innovation performance, followed by R&D expenses plus deduction, and government subsidies have the weakest incentive effect; but The preferential income tax rate policy has no significant impact on state-owned high-tech enterprises, and the government subsidy policy has no significant impact on non-state-owned high-tech enterprises.

Keywords
High-tech Enterprises; Fiscal Incentives; Innovation Performance.

1. Introduction
Innovation has always been a powerful driving force for the development of a country and a nation, as well as an important force for the development of the entire human society. However, scientific and technological innovation is highly profitable and at the same time highly risky. The income of economic entities engaged in scientific and technological innovation activities is highly uncertain. Therefore, it is necessary for the state's fiscal policy to give certain preferential policies to improve the resistance of high-tech enterprises. Risk capacity. In recent years, the United States, Germany, France, Japan and other countries have launched national innovation strategies, taking national innovation capabilities as the core of competition for comprehensive national strength. Although most governments in various countries use government subsidies and tax incentives to encourage enterprise innovation, the implementation effects are not the same. In view of my country’s national conditions and the development of high-tech listed companies, the role of financial incentive policies in the market has become more and more obvious. How does financial incentive affect the innovation performance of high-tech enterprises? These issues require us to use theoretical derivation and empirical analysis methods to further explore. Therefore, this article takes high-tech listed companies as the research object, and combines theoretical analysis and empirical analysis to study the relationship between financial incentive policies and innovation performance of high-tech listed companies. Improve fiscal policy to provide certain suggestions.

2. Literature References
2.1. Financial incentives positively affect the innovation performance of enterprises
Many scholars at home and abroad have reached a consensus on the government’s regulation of corporate innovation behavior. They believe that government subsidies, as part of the source
of corporate R&D investment funds, can promote corporate innovation activities with self-raised funds and improve corporate innovation performance. The government’s R&D support can make up for the lack of corporate R&D and reduce corporate R&D risks, thereby helping to enhance the company’s technological innovation capabilities (Czarnitzki and Licht, 2006). Nola & Stephen (2010) analyzed the impact of government funding on corporate R&D performance based on data from Ireland and Northern Ireland from 1994 to 2002. The research concluded that government funding can increase the proportion of corporate R&D activities and promote incremental product innovation and innovation. Product development innovation activities. The research of Bloom et al. (2003) shows that preferential tax policies can promote the enhancement of research and development, and the longer the time, the more significant the effect. Guellec and Van Pottelsberghe (2003) also concluded through research that preferential tax policies can promote the increase of R&D investment by enterprises.

Many domestic scholars have also supported this view. Yang Ye et al. (2015) used China’s GEM listed companies as a sample to empirically test the impact of government financial subsidies on corporate R&D investment and performance, and found that financial subsidies have a significant impact on corporate performance. Facilitation. Cui Jie and Shan Chunxia (2017) conducted research on the innovation performance of GEM companies based on the panel data model and found that tax incentives and government subsidies have a significant positive impact on the number of patents, that is, government subsidies and tax incentives promote technological innovation of enterprises effect. Chu Haoxuan (2017) believes that government subsidies have a significant positive impact on enterprises’ R&D expenditures and technological innovation output, and the stronger the government’s willingness to subsidize, the more enterprises spend on R&D. Li Zijun (2017) empirically studied the impact of government subsidies on the innovation performance of large and medium-sized industrial enterprises based on the perspective of input-output of innovation performance of large and medium-sized industrial enterprises. The research conclusions show that government subsidies have a positive effect on the innovation performance of enterprises, but their effects are significantly different among different industries. Liu Xuexin et al. (2019) used A-share listed companies from 2007 to 2015 as the initial research sample. The analysis found that government financial subsidies had a significant positive incentive effect on the improvement of corporate innovation performance, but further analysis found that government subsidies contributed to the R&D expenditures of state-owned enterprises. It has an incentive effect and has a "crowding out" effect on the R&D expenditures of non-state-owned enterprises.

2.2. Financial incentives are irrelevant or even negatively affect the company’s innovation performance

Some scholars hold the view of "inhibition theory" and believe that under the background of government rent-seeking and marketization, fiscal incentive policies will not stimulate the innovation performance of enterprises or even negatively affect their innovation behavior. Foreign scholar Manthfield (1995) studied the impact of Canadian government tax incentives on corporate R&D investment and found that tax incentives cannot effectively encourage enterprises to increase R&D investment, thus proving that tax incentives have little relationship with corporate innovation performance. Tommy (2009) pointed out that government subsidies will have a crowding-out effect on the R&D investment activities of enterprises to a certain extent, that is, enterprises may reduce their own R&D investment and reduce the output of R&D activities of enterprises. The results show that government subsidies negatively affect enterprises’ R&D activities. Innovation performance. The incentive effect of government subsidies on enterprise R&D investment is actually not obvious, and sometimes even brings reverse results (Zuniga, 2014).
Zheng Chunmei (2015) used 331 listed high-tech companies on the ChiNext as a research sample, and empirically analyzed the impact of government financial incentive policies on the innovation performance of small and medium-sized high-tech companies, and analyzed the impact of two main policy tools, namely, government subsidies and tax incentives. Comparison of incentive effects. The study found that government subsidies have a significant incentive effect on corporate innovation, and tax incentives not only cannot increase corporate innovation performance, but sometimes have a negative impact on it. Wang Qin and Wang Zimin (2017) used the Fare-Primont index method to measure and decompose the performance changes of listed companies on the Internet of Things. They believe that government subsidies are not significant for performance in the current period. Feng Bing (2017) found that government R&D funds will have a partial “crowding effect” on corporate R&D investment in the research on the impact of technological innovation efficiency in high-tech industries, which is mainly reflected in relatively mature electronics manufacturing industries. Jing Manshi and Yin Xianan (2018) used the 2012-2016 Shanghai and Shenzhen Growth Enterprise Market listed companies as a research sample to examine the impact of government subsidies and R&D investment in different industries on corporate performance. The research results show that government subsidies do not significantly promote the performance of enterprises in all industries. Liu Nan and Du Yueping used game theory to compare two policy tools, government subsidies and tax incentives, and concluded that government subsidies cannot stimulate R&D and innovation activities.

2.3. Financial Incentives and the Uncertainty of the Role of Enterprise Innovation Performance

A foreign scholar Bergstrom (2000) studied the government grants to listed companies in Sweden from 1987 to 1993, and found that the first year after granting subsidies had a positive effect on the "full factor growth rate", and then capital subsidies had a positive effect on the "full factor growth rate", result in negative effect. Harris & Trainor (2005) used Northern Ireland’s 1983-1998 manufacturing enterprise data to classify the technological level of enterprises and found that with different technological levels of enterprises, the impact of government subsidies on the total factor productivity of enterprises is different. The empirical analysis of Li Ruiqian and Bai Junhong (2013), Zhang Xindong and Wu Junjun (2014), Zhang Fan and Sun Wei (2018) believes that government funding for R&D has an "inverted U" impact on the innovation. The incentive effect of technological innovation is dominant, and if the threshold is exceeded, the crowding-out effect leads to a decline in innovation output.

3. Research hypothesis

The technological innovation activities of enterprises have the characteristics of high risk and long duration. In this process, enterprises need to invest a large amount of capital but the payback period is very long. At the same time, enterprises are facing higher financing constraints due to information asymmetry. If the government can help companies get out of the "valley of death" at the beginning of innovation, and provide certain financial support to companies, companies can develop innovation more effectively. Brownetal (2012) and others believe that the financing constraints that companies face when conducting R&D activities will cause companies’ R&D investment levels to be lower than the optimal investment level under the condition of perfect financial markets. Government subsidies for corporate R&D activities can reduce the financing constraints of R&D activities. The imperfect capital market for innovative R&D is often the basis for government subsidies (Hall, 2002). Wang Gang et al. (2016) used the R&D subsidy data of 1831 listed companies as a sample to study the external incentive effect based on propensity score matching. The study found that under the reality that financing constraints are widespread, the incentive effect of
government R&D subsidies on corporate R&D investment is highly dependent on the "inactive" external financing incentive mechanism: government R&D subsidies can release technology certification and supervision based on government credit. The two-factor authentication signal will enable external investors to give the enterprise higher credit recognition due to the trust in the government’s approval, thereby enabling the enterprise to obtain more external financing. The additional certification financing solves the problem of capital constraints faced by the company’s R&D investment by increasing the company’s R&D funding source, thereby encouraging companies to increase R&D investment. Li Zijun (2017) conducted an empirical study on the impact of government subsidies on the innovation performance of large and medium-sized industrial enterprises based on the perspective of input and output of innovation performance of large and medium-sized industrial enterprises. The research results show that government subsidies have a positive promotion on the innovation performance of enterprises. However, this incentive effect varies significantly among industries. Based on the above analysis, the following hypotheses are proposed:

H1a: Government subsidies have a positive effect on the innovation performance of high-tech enterprises

At present, in order to further promote the technological innovation activities of enterprises, my country has levied corporate income tax at a reduced rate of 15% on high-tech enterprises that need key support from the state. Judging from existing research, domestic and foreign scholars have verified the role of tax incentives in promoting corporate R&D from multiple perspectives. Ernst C, Spengel (2011) used the number of patent applications by European companies from the European Patent Office to test the impact of tax incentives on the number of patents. The study found that tax incentives have a positive impact on the number of patents, while the statutory income tax rate has a positive impact on the number of patents. Has a negative impact. The existence of tax burden not only affects the scale of investment in R&D activities of enterprises, but also affects the number of patent applications by enterprises. Y Anwar et al. (2017) conducted a study on the largest digital TV companies in Canada, Indonesia, and the United States based on the EGARCH model. The results show that tax incentives are beneficial to improving the innovation performance of enterprises, but tax incentives are less effective in promoting small businesses.

Zhang Yuanyuan (2017) used linear regression to study the impact of tax incentives and government subsidies on the innovation investment of listed companies on the ChiNext, and believed that both tax incentives and government subsidies can promote enterprises to increase R&D expenditures to a certain extent, but different policies produce The incentive effect of different. Chen Lianghua and Wang Yi (2018) used the double difference model to study the effect of the preferential income tax rate policy for high-tech enterprises in Jiangsu Province. They found that the preferential income tax reduction and exemption will have a positive impact on the innovation performance of high-tech enterprises, but the effect is affected by the property rights of the enterprise. The impact of nature. Wang Yanan, Yang Xiaowen, and Sun Lin (2019) conducted panel data regression on Shenzhen’s high-tech enterprise data. The results showed that preferential corporate income tax rates and additional deductions can play a positive role in promoting enterprise innovation and R&D. As an indirect means of government intervention in the economy, income tax preferences can not only reduce the degree of government intervention in the market economy, but also fully reflect the government’s intentions. A certain degree of tax relief can help companies reduce R&D investment costs and save corporate cash flow. By increasing the company’s expectations of the future benefits of innovative projects, it will speed up the decision-making process of the company’s innovative projects and increase its innovation output. Based on the above analysis, the following hypotheses are proposed:
H1b: Preferential income tax policies for high-tech enterprises have a positive effect on innovation performance

Additional deductions for R&D expenses, the new fiscal regulation No. 119 issued in 2015, “Notice on Improving the Policy for the Pre-tax Deduction of R&D Expenses” came into effect on January 1, 2016, allowing companies to carry out R&D that actually occurs in R&D activities. Expenses that do not form intangible assets are included in the current profits and losses, 50% of the actual amount incurred in the current year, and deducted from the taxable income of the current year; if they form intangible assets, they are amortized before tax at 150% of the cost of intangible assets. Wang Yun and Chen Lei (2016), Jia Mingqi and Zhang Yulu (2017) all used Tobin’s Q value to characterize corporate performance. They conducted research on GEM and software R&D companies and found that the R&D super deduction policy has a significant boost to corporate performance. Yang Hongtao et al. (2015) conducted a questionnaire survey of private technology companies in Shanghai to study the overall effect, direct effect and indirect effect of the R&D super deduction policy. From the overall effect, most of the enterprises that enjoy the preferential policy believe that it has played a greater role in enterprise innovation and R&D; from the perspective of direct effects, the R&D deduction policy can effectively promote enterprises to increase R&D investment; For effect research, Yang Hongtao and others started from three aspects of enterprise R&D personnel investment, R&D expenditure investment and innovation performance, and proposed that the R&D super deduction policy promotes the overall effect and the indirect effect more than the direct effect. The R&D expenditure deduction policy directly provides tax incentives for the core link of research and development of innovative activities, allowing enterprises to deduct R&D expenditures before tax. Reasonable R&D expenditures will increase the percentage of super deductions, thereby reducing the tax burden of enterprises. As a "rational economic man", companies will make full use of idle funds, rationally plan technological innovation projects, and actively promote the improvement of corporate innovation performance. Based on the above analysis, the following hypotheses are proposed:

H1c: The deduction of R&D expenses has a positive effect on the innovation performance of high-tech enterprises

The special nature of the ownership of state-owned enterprises determines that they have always maintained close contact with the government, making it easier for them to obtain government subsidies, tax reductions and other preferential policies. However, most state-owned enterprises are in a market monopoly position, and the motivation for independent research and development is insufficient. These preferential policies due to political factors and other reasons may even inhibit enterprise innovation. Non-state-owned enterprises rely entirely on market competition to survive. Only continuous innovation and research and development can ensure the growth and development of enterprises in an environment of incentive competition. Therefore, government fiscal incentive policies can better encourage non-state-owned enterprises to engage in R&D activities, thereby improving the innovation performance of non-state-owned enterprises. In addition, Jiang Jing (2017) found through empirical research on domestic-funded enterprises, Hong Kong, Macao and Taiwan-invested enterprises, and foreign-funded enterprises that the government subsidy policy has significantly increased the R&D intensity of domestic-funded enterprises, but it has produced an impact on the R&D intensity of Hong Kong, Macao and Taiwan-invested enterprises and foreign-funded enterprises. Inhibition. This shows that ownership will affect the incentive effect of fiscal policy on enterprise innovation performance. Based on this, this article proposes the following hypotheses:

H2: Under different forms of ownership, there are differences in the incentive effects of fiscal incentive policies on the innovation performance of high-tech enterprises.
4. Research design

4.1. Research model design

\[ \text{InPer}_{it} = \beta_0 + \beta_1 \text{GovSub}_{it} + \beta_2 \text{Tax}_{it} + \beta_3 \text{RDplus}_{it} + \beta_4 \sum \text{control} + \epsilon \]  

(1)

To test Hypothesis 1, Hypothesis 2, model 1 is established. In formula (1): InPer is innovation performance; GovSub is government subsidy; Tax is tax deduction for high-tech enterprises; RDplus is R&D super deduction tax deduction; control means control variable; \( \beta_0 \) means constant term; \( \epsilon \) means error term.

4.2. Sample selection and data source

This article selects Shanghai and Shenzhen A-share high-tech listed companies as the research object, mainly for the following considerations: (1) High-tech listed companies are an important part of my country's Shanghai and Shenzhen listed companies, and high-tech listed companies have The characteristics of high R&D investment and strong government financial incentive policies. Selecting high-tech listed companies as the sample research enterprise innovation has a strong representative; (2) In recent years, my country has increased its financial subsidies and tax incentives for high-tech enterprises, and the R&D investment of high-tech enterprises has been increasing. Selecting high-tech listed companies as research objects has a certain degree of reference for formulating corresponding policies; (3) High-tech listed companies cover most industries with high technology content, which can effectively avoid the limitations of studying a single industry.

The high-tech listed companies selected in this article refer to high-tech companies that comply with the "Management Measures for the Recognition of High-tech Enterprises" and the "Guidelines for the Management of Recognition of High-tech Enterprises" and have been recognized by the Torch Center of the Ministry of Science and Technology that have also been listed. Through data collection and screening, this paper finally selected 327 companies and 1635 sets of observation data. Indicators such as government subsidies, R&D investment, total company assets, and return on total assets are all derived from Guotaian and Wind databases. Equity concentration and independence The ratio of directors is derived from the RES database, and some indicators are compiled through indirect calculations. In order to avoid the impact of incomplete information disclosure on the research results of this article, this article uses the following principles to screen the collected data as follows: (1) Exclude all listed companies that were processed by ST in 2013-2017; (2) Exclude the government Subsidy data disclosure is unknown and incomplete high-tech listed companies.

4.3. Variable selection

4.3.1. Explained variable

The explained variable in this paper is the innovation performance of high-tech enterprises. Regarding the measurement of enterprise innovation performance, the current academic circles usually use the number of patent applications or the sales revenue of new products to measure. This article refers to the research of Yin Fan (2011) and Li Jing (2017) to measure the innovation performance of enterprises from two aspects: knowledge output and economic output. Among them, knowledge output is characterized by the number of patent applications of high-tech enterprises that year. According to the "2016 Patent Annual Report" issued by the State Intellectual Property Office, the average review period of invention patents in recent years has been over 22 months, while design and utility model patents The average review period is about 4 months. Therefore, compared with the number of patents granted, the number of patent applications can better reflect the achievements of technological innovation and the degree of technological improvement of enterprises in the current period. In terms of economic output, considering the imperfection of my country's securities market, the company's stock
price may deviate from its true value. The calculation of Q value and earnings per share cannot reflect the true value of the company, while the return on total assets can reflect the company’s capital. Therefore, this paper selects the total return on assets of high-tech listed companies to characterize the economic output of innovation performance. With reference to the practice of Li Jing and He Yili (2017), Matlab uses the entropy method to determine the weight of each indicator in the evaluation index system, and finally calculates the comprehensive score of the innovation performance of high-tech enterprises. 

at a time may be put in one set of brackets [3, 4]. The references are to be numbered in the order in which they are cited in the text and are to be listed at the end of the contribution under a heading References, see Table 1.

<table>
<thead>
<tr>
<th>Numble</th>
<th>Scheme 1</th>
<th>Scheme 2</th>
<th>Scheme 3</th>
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<td>644</td>
</tr>
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<td>3</td>
<td>213</td>
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4.3.2. Explanatory variables

The explanatory variables in this article are government subsidies, income tax concessions, and R&D expenses plus deductions.

Intensity of government subsidies (GovSub). The Ministry of Finance issued the Ministry of Finance Order No. 33 on February 15, 2006. The "Accounting Standards for Business Enterprises" has been implemented since January 1, 2007. According to the "Accounting Standards for Business Enterprises No. 16-Government Subsidies", "government subsidies, It refers to the monetary or non-monetary assets obtained by the company from the government for free, but does not include the capital invested by the government as the owner of the company. "Considering the nature and availability of financial data disclosed by listed companies, this article is based on the financial statements of listed companies In the notes, the details of government subsidies are disclosed, and the details of government subsidies are screened, and innovative fund subsidies such as tax preferential rebates and compensation for demolition in other places are excluded to form government subsidies for enterprise innovation activities.

Income tax incentives (Tax). The income tax preference should be the difference between the tax payable and the actual tax amount. This article uses (nominal tax rate-actual tax rate) * total profit/total assets to characterize the income tax preference.

R&D expenses plus deductions. The current academic circles measure the extra deductions mainly from the following perspectives: First, conduct investigations based on the awareness of the R&D expenses plus deductions of the policy and the popularity of the policy by the main body of the enterprise. Questionnaire research; second, measure whether the enterprise enjoys the super deduction policy as a dummy variable; third, evaluate it based on the tax reduction caused by the super deduction preference. According to the feasibility of the data source and the adoption of existing research, this article adopts the third method to construct an indicator of the intensity of the additional deduction of incentives, that is, the intensity of the additional deduction of R&D expenses = (total R&D expenses at the end of the period × pre-tax deduction rate × corporate income tax Rate) takes the logarithm, where the total R&D expenses are the amount of “R&D investment (R&D expenses)” disclosed in the company's financial report, and the pre-tax deduction rate is 50%. In 2018, the Ministry of Finance issued Finance [2018] No. 99 Document, which raised the super deduction rate to 75%. Since the sample is from 2013-2017, this article uses the 50% deduction rate.
5. **Empirical analysis**

The first premise of empirical analysis is the stability of the sample data. Therefore, this article first uses Stata 15.0 software to implement tailing processing on the sample data, with 1% as the limit, to eliminate the interference of abnormal values on the entire sample to ensure the analysis. Authenticity.

5.1. **Descriptive statistical analysis**

According to the above variable setting, the variables selected in this article include government subsidies (GovSub), income tax concessions (Tax), R&D expenses plus deduction (RDplus), patent applications, return on total assets, enterprise scale, enterprise age, and enterprise The nature, debt-to-asset ratio, operating income growth rate, equity concentration, and independent director ratio have significant characteristics among the variables. The specific results are shown in Table 3

According to Table 3, combined with variable setting, the descriptive statistical results of the main variables are as follows:

1. Patent applications: The maximum number of patent applications in the sample enterprises is 7.59, the smallest is only 0.69, and the average is 3.87, indicating that the overall innovation output of my country's high-tech listed companies is not high. The overall level of performance needs to be improved.

2. Return on total assets (Roe): The average annual return on assets of the company is 9.02%. The company with the lowest return on total assets is only 0.23% in the year, and the highest return on total assets is 29.65%, but the standard deviation is 0.0621, Which shows that the level of return on total assets of high-tech listed companies is close, and the gap is not large.

3. Government subsidies (GovSub): The average value of government subsidies is 15.38, indicating that the state has relatively large financial subsidies for high-tech listed companies. The maximum value of government subsidies received is 22.11, the minimum value is 0, and the standard deviation is 4.41. Compared with other indicators, the government financial subsidies received by companies are quite different.

4. Income tax incentives (Tax): Among the selected sample high-tech enterprises, the average value of tax incentives for the year is 0.0058, the maximum value is 2.51%, and the minimum value is -0.44%, indicating that the high-tech listed companies have obtained The tax incentives are generally small, and the actual tax burden borne is relatively large.

5. Extra deduction for R&D expenses (RDplus): The minimum value of the premium deduction for high-tech listed companies is 13.41, the maximum value is 19.003, and the standard
deviation is 1.12, indicating that my country's high-tech listed companies enjoy a higher level of deduction for R&D expenses.

Table 3. Descriptive statistics of sample variables

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<th>Obs</th>
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<th>Max</th>
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5.2. Regression analysis

Table 4. Main effect test regression results

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<td>0.649***</td>
<td>0.845***</td>
<td>0.603*</td>
<td>1.083***</td>
</tr>
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<td>6.43</td>
<td>4.38</td>
<td>5.31</td>
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<td>5.78</td>
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<tr>
<td>STcon</td>
<td>0.301***</td>
<td>0.177*</td>
<td>0.256***</td>
<td>0.241***</td>
<td>0.532***</td>
<td>0.108</td>
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<tr>
<td>_cons</td>
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<td>2.3</td>
<td>3.59</td>
<td>3.36</td>
<td>3.69</td>
<td>1.34</td>
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<tr>
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<td>1635</td>
<td>1635</td>
<td>555</td>
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Model 1.a, model 1.b, and model 1.c in Table 4 respectively show the main effect test results of government subsidies, income tax incentives, and R&D expenses plus deductions on the innovation performance of high-tech enterprises. The results show that the regression coefficients of government subsidies, income tax preferences, and R&D plus tax deduction policies on corporate innovation performance are 0.000280 (P<0.001), 32.83 (P<0.001), and 0.483 (P<0.001), respectively, indicating that government subsidies, Income tax incentives and R&D plus tax deduction policies are positively correlated with corporate innovation performance, which validates the assumptions H1a, H1b, and H1c. The government will
increase the incentives of related financial incentive policies, which will improve the innovation performance of high-tech enterprises.

Taking into account the mutual influence of the three policies of government subsidies, income tax incentives, and R&D plus tax deductions, this article adds these three policies to Model 1 to analyze the interaction of the three fiscal incentive policies. The true degree of impact on innovation performance. The verification results show that the influence coefficients of government subsidies, income tax incentives, and R&D plus tax deductions on corporate innovation performance are 0.000157 (P<0.001), 12.78 (P<0.001), and 0.438 (P<0.001), respectively. It can be seen that when measuring the impact of three types of fiscal incentive policies on enterprise innovation performance at the same time, the high-tech enterprise income tax tax deduction policy has the greatest incentive for enterprise innovation performance, followed by the R&D plus tax deduction policy, and finally the government subsidy policy.

In order to test the differences in fiscal incentive policies under different ownership systems, this paper will classify and regress the samples. In the sample of state-owned enterprises, the government subsidy and R&D super deduction policies are significant at the P value of 0.001, while the income tax preference is for state-owned high-tech enterprises. The possible reason is that the preferential income tax rate is proposed for the result of innovation, and the enterprise can only enjoy the preferential policy if the innovation is successful and obtain a certain profit, and the enterprise needs to bear the risk of innovation failure. It will cause companies to pay more attention to profit results and ignore the improvement of their true innovation capabilities. The importance of profit indicators in the performance appraisal of state-owned enterprises and the corresponding relationship between tenure performance and executive compensation make state-owned enterprise leaders reluctant to take the risk of innovation failure actively, so that the ex post incentive policy of income tax preference has no significant impact on the innovation performance of state-owned enterprises. In the sample of non-state-owned enterprises, income tax incentives and R&D expenses plus deduction policies are significant at a P value of 0.001, while government subsidies have no significant impact on the innovation performance of non-state-owned high-tech enterprises. The possible reason is that non-state-owned enterprises are due to Lack of advantages such as political connection and market monopoly status. Compared with state-owned enterprises, it is more difficult to obtain government subsidies in government subsidy applications, or the amount of government subsidies is small, making government subsidy policies fail to effectively stimulate innovation of non-state-owned high-tech enterprises Performance.

6. Conclusion

This paper mainly studies the impact of fiscal incentive policies on the innovation performance of high-tech listed companies. It takes 327 high-tech listed companies listed on the Shanghai and Shenzhen stock exchanges from 2013 to 2017 as the research object, and uses Stata 15.0 statistical software to analyze the 1635 groups. The sample data has been empirically studied, and the effects of government subsidies, high-tech enterprise income tax incentives and R&D expenses plus deductions on the innovation performance of high-tech listed companies are studied respectively. Based on empirical analysis, this paper draws the following conclusions: government subsidies, high-tech enterprise income tax incentives, and R&D expenses plus deductions are positive incentives for high-tech enterprises’ innovation performance, but there are differences in incentive effects. The tax reduction and exemption policy of high-tech enterprises has the strongest incentive effect on the innovation performance of enterprises, followed by the R&D super deduction tax reduction and exemption, while the incentive degree of government subsidies is the weakest. Compared with direct government subsidies, tax
incentives, an indirect and ex post incentive method, can improve the innovation performance of high-tech listed companies. However, under the condition of heterogeneity of property rights, income tax preference has no significant impact on the innovation performance of state-owned high-tech enterprises, and government subsidies have no significant impact on the innovation performance of non-state-owned high-tech enterprises.

The government should be guided by innovative output and enrich the types of ex-post fiscal incentive policies. At present, most government fiscal policies are focused on the input side, aiming to guide enterprises to increase R&D investment from the source. Continuously increasing R&D investment will inevitably drive enterprise innovation output. However, this method cannot effectively improve the innovation efficiency of enterprises. In reality, it is not uncommon for companies to defraud government subsidies through false innovation projects or information, and to enjoy tax incentives through profit manipulation, leading to inefficient investment. The root cause of these phenomena is the imperfect government financial incentive system. The current fiscal incentive policy pays more attention to the evaluation of enterprise innovation input, the implementation of one-off government subsidies to individual enterprises, and the lack of a game mechanism for evaluating innovation achievements. Therefore, the government should establish a sound evaluation mechanism based on innovation output, and give enterprises different amounts of government subsidies and tax incentives through the evaluation of enterprise innovation results. Only when the government attaches equal importance to the innovation output side can it guide enterprises to truly attach importance to their own innovation output capabilities.

Enterprises should formulate reasonable project budgets and improve their internal control system. Before launching innovative activities, enterprises need to make detailed and comprehensive project arrangements. Making a detailed innovation plan is the most important and also the most basic link. After clarifying the innovation plan, the company needs to make a reasonable and detailed project budget, and make a reasonable and realistic estimate of the cost of each stage. At the same time, the use of government subsidies and the schedule of use also require a reasonable judgment. In this way, when using government subsidy funds, there is a basis for reference, which can effectively avoid the abuse of subsidy funds, and also reduces the possibility of misappropriation and illegal use of subsidies, so that special funds can be used for special purposes.

References


