Research on the Impact of Corporate Tax Avoidance on Investment Efficiency

Xinyu Ding

School of economics and management, Nanjing University of Science and Technology, Nanjing 210094, China

2030758884@qq.com

Keywords: Tax avoidance, Investment efficiency, Information asymmetry, Agent problem

Abstract: This paper discusses the impact of corporate tax avoidance on investment efficiency from the perspective of information asymmetry and agency conflict. The research results show that tax avoidance and non-efficiency investment are positively related, that is, investment efficiency decreases with the increase of tax avoidance.

1. Introduction

The widespread existence of tax avoidance in enterprises has attracted the attention of academics and tax authorities. As a financial burden on enterprises, taxation will bring large amounts of capital outflows, so more and more companies choose to avoid tax. The traditional concept of tax avoidance believes that tax avoidance reduces the tax burden on enterprises by reducing cash outflow, which in turn increases the value of enterprises. However, in recent years, the agency view on corporate tax avoidance has found that there is not necessarily a positive correlation between tax avoidance and corporate value [1, 2, 3] ,this is mainly because in order to prevent tax collection and management from discovering corporate tax avoidance activities, enterprises often use opaque means to cover up their tax avoidance activities, thereby increasing the degree of information asymmetry [4], and information asymmetry The moral hazard problem is easy to induce managers' self-interested behavior and aggravate agency conflicts. The negative impact of tax avoidance ultimately makes it unnecessary to increase corporate value. In addition, tax avoidance has also damaged national interests. The 2016 Tenth Tax Administration Forum pointed out that every year, governments around the world have caused tax losses of $250 billion due to tax avoidance by multinational corporations, and it has become an international consensus to jointly combat tax evasion and tax avoidance. Therefore, in recent years, China has been deepening the reform of tax collection and management. One of the core of its reform is to strengthen the intensity of tax collection and management and combat corporate tax evasion.

The current research on tax avoidance mainly investigates the influencing factors of corporate tax avoidance and how the government can curb corporate tax avoidance by improving the tax system [5, 6, 7]. However, as an important part of the company's expansion of reproduction, investment activities rarely have a relationship between literature research tax avoidance and corporate investment efficiency. Existing literature studies show that agency conflict and information asymmetry are the main factors affecting the efficiency of corporate investment [8, 9]. The study of agent avoidance tax avoidance shows that tax avoidance will bring information asymmetry [4] and agency conflict [10]. Then, will corporate tax avoidance affect investment efficiency by aggravating information asymmetry and agency conflict?

Based on the above questions, this paper takes all A-share listed companies in China as the research sample, and discusses the impact of tax avoidance on investment efficiency from the perspective of information asymmetry and agency conflict.

The main contributions of this paper are as follows: (1) Previous studies have confirmed that tax avoidance will increase corporate value. However, the results of this paper show that tax avoidance will reduce the investment efficiency of enterprises. The research results in this paper provide a new direction for tax avoidance research, and it also enriched the existing literature. (2) From the enterprise income tax law of 2008, the general anti-tax avoidance clause was introduced into China's anti-tax avoidance system, and then the anti-tax avoidance system introduced in the personal income tax law in 2018. In the past ten years, the Chinese government has always emphasized anti-tax avoidance, but anti-tax avoidance to enterprises. In terms of whether it is good or bad, there is no unified conclusion in the literature on this study. The research results of this paper show that tax avoidance will bring down the investment efficiency of enterprises, which shows the current direction of tax reform - the effectiveness of anti-tax avoidance.

2. Theoretical Analysis and Research Hypothesis

Existing literature studies have found that the main factors affecting the efficiency of corporate investment are information asymmetry and agency conflict [8, 9]. First of all, when there is information asymmetry between the market and the enterprise, the degree of superiority and inferiority of the investment conditions of the enterprise will be difficult to distinguish, which will easily lead to adverse selection of the market. On the one hand, it will make it difficult for enterprises with better investment conditions to obtain financing. This will lead to insufficient investment. On the other hand, it will allow enterprises with poor investment conditions to obtain excess funds, which will lead to excessive investment. Second, the speculative behavior of management brought about by information asymmetry will also reduce investment efficiency. In the context of information asymmetry, it is difficult for shareholders to effectively supervise management, which often exacerbates management's speculation [11]. When management seeks the construction of a business empire, it will generate excessive investment. When the layer is inactive, there will be insufficient investment [12]. Zhang Chun et al [13], Zhang Xinmin et al [14], Yuan Zhenchao et al [15] also found that information asymmetry will reduce the investment efficiency of enterprises. For the agency conflict, the inconsistency between the shareholders and the managers arising from the separation of the two positions of the modern enterprise will lead the management to make decisions that are detrimental to the goal of maximizing shareholder value, free cash flow. Over-investment is a typical case [16], that is, when a company has a large amount of free cash flow, managers often use cash for enterprise expansion work for the sake of self-interested motives, thus leading to excessive investment; When an investment project that the management believes that the net present value (NPV) is greater than zero cannot bring additional benefits to it, it is likely to abandon the project and cause insufficient investment. Pu Linxia [17], Xu Qian [18], etc. also found that agency problems significantly affect the investment efficiency of enterprises.

Since the main factors affecting investment efficiency are information asymmetry and agency conflict, how does corporate tax avoidance affect these two aspects and cause non-efficiency investment of enterprises?

First, tax avoidance will bring about information asymmetry. Desai et al. [1] found that in order to prevent tax authorities from detecting corporate tax avoidance activities, companies often use complex and opaque transactions to cover up their tax avoidance activities, and management with private incentives often use this opportunity to engage in “seeking rent”. "Activity, which exacerbates the degree of information asymmetry and agency conflicts in enterprises. Chen et al. [19] studied the relationship between tax avoidance and information transparency, and the results showed that the degree of tax avoidance and information transparency of enterprises showed a significant negative correlation. On the basis of previous studies, Chen Dong et al. [20] found that tax avoidance has aggravated the degree of information asymmetry by reducing the signal effect of accounting profits.

Second, tax avoidance can exacerbate agency conflicts. Kim et al. [21] found that corporate tax avoidance behavior increased management's opportunistic motives, and management's opportunistic behavior often led to its hidden bad news and transfer of corporate resources, which led to the company's financial performance was too high. It is estimated that this will cause the stock price to “bubble” and even increase the risk of stock price plunging. Zhong Haiyan et al. [22] found that corporate tax avoidance would inhibit the positive correlation between corporate performance and management compensation, thereby undermining the incentive effect of the compensation contract and aggravating agency conflicts. Tang Jianxin et al. [23] found that the higher the degree of tax avoidance, the lower the quality of corporate accounting information disclosure, and this inhibition is more prominent in enterprises with higher agency costs. Ye Kangtao et al. [10] empirical research found that corporate tax avoidance will weaken the sensitivity of executive compensation and accounting performance, and thus increase agency costs. Wang Jing et al. [24] found that radical tax avoidance behaviors led to problems such as excessive investment by management, and also explained that tax avoidance would exacerbate agency conflicts.

Therefore, we believe that corporate tax avoidance will increase the degree of non-efficiency investment of enterprises by causing information asymmetry and agency conflicts, and thus make assumptions:

The higher the tax avoidance of enterprises, the higher the degree of non-efficiency investment is.

3. Research Design

3.1 Sample Selection and Data Source

The research sample of this paper is all A-share listed companies in 2010-2016. And the initial sample is processed as follows: (1) excluding the sample with non-positive income tax expenses for the current period. If the current income tax expense of the enterprise is less than or equal to zero, it means that the enterprise does not need to pay income tax in the current period, so there is no tax avoidance motive; (2) Excluding the sample data of the financial industry; (3) Excluding the sample with the actual tax rate exceeding 1, the actual tax rate is greater than 1 The description is an outlier. In the end, 10039 sample sizes were obtained. The sample data required for this paper were all derived from the *CSMAR* database, and in order to avoid the influence of outliers, the continuous variables were subjected to tailing treatment at the 1% and 99% levels.

3.2 Measurement and Description of Variables

The measurement of investment efficiency is based on the model of Richardson [25]. The residual $\varepsilon_{i,t}$ of the model is used, t represents the unexpected investment amount, and its value is equal to the difference between the actual investment amount and the expected investment amount. This paper uses the absolute value of $\varepsilon_{i,t}$ to represent Inefficient investment level (*ININV*). The degree of corporate tax avoidance (AT) is measured using accounting-tax differences (*BTD*), *BTD* = (pre-tax accounting profit - taxable income) / total assets at the end of the period. The larger the *BTD*, the greater the subjective tax avoidance of the enterprise is. In addition, considering that the enterprise may have accounting-tax differences in earnings management, in order to eliminate this influence, the research method of Desai et al. [1] is used. This paper also uses the accounting-tax difference after deducting the impact of accrued profits. *DDBTD* measures the degree of tax avoidance of a company.

3.3 Model Building

In order to test the hypothesis of this paper, whether the tax avoidance of enterprises will affect the investment efficiency of enterprises, the model of this paper is as follows:

$$\begin{aligned}ININV_{i,t} &= \alpha_0 + \alpha_1 AT_{i,t} + \alpha_2 SIZE_{i,t} + \alpha_3 FCF_{i,t} + \alpha_4 NEG_{i,t} + \alpha_5 FCF_{i,t} * NEG_{i,t} \\ &+ \alpha_6 IND_{i,t} + \alpha_7 TOP1_{i,t} + \alpha_8 BSIZE_{i,t} + \alpha_9 DUAL_{i,t} + \alpha_{10} MANS_{i,t} \\ &+ \alpha_{11} SOE_{i,t} + YEAR + INDUSTRY + \varepsilon_{i,t}\end{aligned}$$

AT is the degree of tax avoidance of enterprises. This paper uses *BTD* and *DDBTD* to measure *AT*. The larger the *AT*, the higher the tax avoidance of enterprises. Based on the assumptions in this paper, the prediction α_1 is significantly positive.

4. Empirical Test Results and Analysis

Firstly, the descriptive statistics are carried out in this paper. The results show that the average value of *ININV* is 0.034, which indicates that the inefficient investment of the sample company accounts for 3.4% of the total assets of the company. The phenomenon of non-efficiency investment is common among listed companies in China. The mean and median of *BTD* and *DDBTD* are both negative, indicating that most companies have more aggressive tax avoidance.

Secondly, the main variables are tested for correlation. The results show that there is less probability of multicollinearity between variables. Moreover, *BTD* and *ININV*, *DDBTD* and *ININV* are significantly positively correlated at the level of 1%, which indicates that the higher the tax avoidance degree, the greater the degree of non-efficiency investment, and the hypothesis is initially verified.

Finally, the OLS regression method was used to test the hypothesis of this paper. The regression results are shown in Table 1. It can be seen from the table that whether BTD or DDBTD is used to measure the degree of tax avoidance of enterprises, the regression coefficients of the two measures are significantly positive, that is, the greater the tax avoidance of enterprises, the higher the degree of non-efficiency investment, the hypothesis of this paper is verified.

Table.1. Regression Result

Variable	(1)	(2)	(3)	(4)
BTD	0.023**	0.020*		
	(1.97)	(1.71)		
DDBTD			0.025**	0.021*
			(1.99)	(1.68)
Industry and year	Control	Control	Control	Control
Constant	0.042***	0.080***	0.042***	0.080***
	(12.21)	(8.38)	(12.16)	(8.36)
N	10039	10039	10039	10039
Adj_R^2	0.040	0.062	0.040	0.062

5. Conclusion

Our research finds that tax avoidance and non-efficiency investment are positively related, that is, investment efficiency declines with the increase of tax avoidance. The research in this paper shows that corporate shareholders should deeply understand that tax avoidance is a double-edged sword. On the one hand, tax avoidance can reduce the tax burden of enterprises, but on the other hand, tax avoidance can easily lead to information asymmetry and agency conflict, which leads to inefficient investment. Therefore, enterprises should not blindly avoid radical tax avoidance in order to reduce the tax burden, but should analyze and measure the various consequences of tax avoidance, and then make decisions to maximize the value of the enterprise.

References

[1] Desai, M. A., and D. Dharmapala. Corporate Tax Avoidance and Firm Value [J]. The Review of Economics and Statistics, 2009, 91 (3): 537-546.

[2] Hanlon, M., and S.Heitzman. A Review of Tax Research [J]. Journal of Accounting and Economics, 2010, 50 (2-3): 127-178.

[3] Cheng Xiaoke, Li Haoju, Zheng Lidong. Can tax avoidance enhance corporate value?—Based on the perspective of monetary policy [J]. Audit and Economic Research, 2016 (3): 63-72.

[4] Liao Yixin, Liu Yunguo. Corporate Tax Avoidance, Information Asymmetry and Management's On-the-job Consumption [J]. Nankai Management Review, 2016 (2): 87-99.

[5] Li Yiyang, Cheng Xiaoke, Yao Lijie. Does institutional investor research inhibit corporate tax avoidance behavior? —Based on the analysis of mediation effect of information disclosure level [J]. Accounting Research, 2018 (9): 56-63.

[6] Liu Siyi, Weng Ruoyu, Yang Daoguang. Natural Disasters, Financial Pressure and Corporate Tax Avoidance—an Empirical Analysis Based on Typhoon Disaster [J]. Accounting Research, 2018 (3): 34-41.

[7] Wang Liangliang. The Impact of Financial Crisis, Financing Constraints and Corporate Tax Avoidance [J]. Nankai Management Review, 2016 (1): 155-168.

[8] Myers, S., and N. Majluf. Corporate Financing and Investment Decisions When Firms Have Information that Investors do not have [J]. Journal of Financial Economics, 1984, 13 (2): 187-221.

[9] Jensen, M., and W.Meckling.Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure [J]. Journal of Financial Economics, 1976, 3 (4): 305-360.

[10] Ye Kangtao, Liu Xing. Corporate Tax Avoidance Activities and Internal Agency Costs [J]. Financial Research, 2014 (9): 158-176.

[11] Nagar, V., J.Schoenfeld, and L. Wellman. The Effect of Economic Policy Uncertainty on Investor Information Asymmetry and Management Disclosures [J]. Journal of Accounting and Economics, 2019, 67 (1): 36-57.

[12] Liu Xing, Ye Kangtao. Will corporate tax avoidance activities affect investment efficiency? [J]. Accounting Research, 2013 (6): 47-53.

[13] Zhang Chun, Lu Wei. Information Disclosure, Information Intermediary and Enterprise Over-investment [J]. Accounting Research, 2009 (1): 60-65.

[14] Zhang Xinmin, Zhang Tingting, Chen Deqiu. Industrial Policy, Financing Constraints and Enterprise Investment Efficiency [J]. Accounting Research, 2017 (4): 12-18.

[15] Yuan Zhenchao, Rao Pingui. Accounting Information Comparability and Investment Efficiency [J]. Accounting Research, 2018 (6): 39-46.

[16] Jensen, M. Agency Costs of Free Cash Flow, Corporate Finance and Takeovers [J]. The American Economic Review, 1986, 76(2): 323-329.

[17] Pu Linxia. Information Asymmetry, Principal-Agent and Investment Efficiency of Listed Companies [J]. Finance and Accounting News, 2011 (30): 89-90.

[18] Xu Qian. Uncertainty, Equity Incentives and Inefficient Investment [J]. Accounting Research, 2014 (3): 41-48.

[19] Chen, F., O. Hope, Q.Li, and X.Wang. Financial Reporting Quality and Investment Efficiency of Private Firms in Emerging Markets [J]. The Acc-ounting Review, 2011, 86 (4): 1255-1288.

[20] Chen Dong, Tang Jianxin. Institutional investors holding shares, tax avoidance and rent-seeking and corporate value [J]. Economic Review, 2013 (6): 133-143.

[21] Kim, J.B., Y.Li, and L.Zhang. Corporate Tax Avoidance and Stock Price Crash Risk: Firm-level Analysis [J]. Journal of Financial Economics, 2011, 100 (3): 639-662.

[22] Zhong Haiyan, Li Qian. The Impact of Corporate Tax Avoidance on Executive Compensation Contracts [J]. Friends of Accounting, 2015 (15): 62-65.

[23] Tang Jianxin, Chen Lue, Tang Chunjiao. Agency Cost, Tax Avoidance and the Quality of Accounting Information Disclosure of Listed Companies [J]. Finance and Accounting News, 2013 (7): 3-6.

[24] Wang Jing, He Dongyang, Zhang Tianxi. Tax Avoidance, Corporate Governance and Managerial Opportunistic Behavior [J]. Journal of Shanxi University of Finance and Economics, 2014 (3): 77-89.

[25] Richardson, S.Over-investment of Free Cash Flow [J]. Review of Accounting Studies, 2006, 11 (2-3): 159-189.