Research on the Relationship Between Reform of Enterprise Income Tax and Enterprise Earnings Management

Zhang Jian, Chen Chaohui
School of Business Administration, South China University of Technology, Guangzhou, P.R. China, 510640
(E-mail: Zhangjay2005@163.com, chchaohui@foxmail.com)

Abstract: The implementation of the new enterprise income have different degrees of impaction on China's listed companies' tax burden, so many listed companies carried out earnings management. In order to determine whether there is tax avoidance motive for earnings management in listed companies, and observe the impact of factors of earnings management and market response. Through panel data tests, this paper found that, either raise or lower the company tax rate, the companies will take earnings management. Market is able to identify and agrees with the tax avoidance behavior of earnings management.
Keywords: Reform of enterprise income tax; Earnings management; Tax avoidance

1 Introduction

Taxation is an important factor for government to influence business development. With the introduction of new corporate income tax law in 2007, the corporate can reduce the tax burden on earnings management. New income tax law which came into effect in the January 1, 2008, will impose 25% income tax on both domestic and foreign enterprise. The change to the domestic enterprises provides a new platform of tax reform and an important guarantee of a fair tax environment (Liu Kegu 2007). Before the implementation of the new tax law, because the tax policies are not unified, there are many preferential policies for large and listed companies in different tax rates (Wang Yanming, 2002). The implementation of the new enterprise income tax law of listed companies in China makes the tax change and directly affects the company's value (Wang Yuetang, 2009). In order to investigate the implementation of the new income tax law, and whether the company use earnings management to avoid tax, the reason why company make earnings management, and such a practice is recognized by the market or not, the paper select all the A-share listed companies as the research sample for empirical analysis. This paper is characterized by: (1) isolated from non-controlled companies operating accruals, improve the accuracy of empirical testing of earnings management; (2) the introduction of the amount of profit-shifting evaluating corporate earnings management.

2 The Study Design

2.1 Hypotheses

Assumption 1: For the tax avoidance motive, listed company made earnings management. As our country are constantly revised and improved tax system, tax incentives are more often in order to save corporate tax burden, reduce costs, minimize reported net income, increase working capital. Because different regions, different types of corporate tax burden is different for the transfer of reserved corporate tax avoidance and profit opportunities. Accruals is the main way to profit manipulation, can be divided into discretionary accruals and non-profit accruals profits in two parts. If specific interest groups based on adjusted earnings, rather than simply under the accrual basis point cash point transactions inconsistent with the adjustments, can be seen as manipulation of accruals. Enterprises in order to reduce the tax burden, cosmetic results will take a variety of techniques, landscaping financial reports, such as changes in corporate tax rates will be delayed by profit, deferred tax. Jiang Yihong, and Wei Gang (1998), and Xiao Chen Xiaoyue Star (2000) empirical research pointed out that listed companies in China there is widespread earnings management. Wangyue Tang (2009) that reduce the company tax rate will delay the earnings management to reduce the profit tax, but the company tax rate there is no obvious avoidance earnings management, may be due to the existence of such preferential tax policies for the company.

Assumption 2: the larger listed companies, the more positive earnings management they made. Theoretically, earnings management can be understood as operational needs for capital market incentives and motivation of debt contracts. Capital market operators need to move because of that listed company in the capital markets to obtain financing and subjected to all kinds of supervision, the need for financial packaging, but also encourage enterprises to expand the size of the larger companies to improve performance in order to pass a good development prospects, the strength of the signal. Motivation is that debt contracts, corporate investment is successful, shareholders receive a large number of surplus, and the creditor can only get a fixed interest rate; if investment losses, shareholders do not need full debt in bankruptcy, and creditors to bear the full consequences. Therefore, the creditors in order to reduce agency costs and risk often require the debtor to set the protective provisions, to ensure a certain level of profitability, earnings management and thus became a tool to reduce the risk of default. Tall, (2004) pointed out that the negative earnings management and capital structure related to non-debt tax shields and capital structure of negative correlation.Hypothesis 3: Effective tax avoidance of listed companies, the stock market will give a positive response. In recent years, more and more scholars study China's stock market response to earnings management of listed companies. We usually adopt the basic Jones model, modified Jones model and with the intangible assets and other long-term assets Jones model as earnings management measurement model (Zhang Yong-Kui and Liu Feng（2002) or the KS model.

Research methods

Firstly, we use modified Jones model and elect the multiple regression panel data empirical statistical methods to analysis earnings management for tax avoidance motive. Then, calculate the amount of the profit-shifting of listed company after the implementation of the new tax law, tectonic reward model to analyze the market response to earnings management of listed companies. Kang and Sivarama Rishnan (1995), Guay (1996), Mcnichols (2000), Hribar (2002) use different methods to assess and compare the earnings management. In this paper, we select Thomas (1998) method to calculate operating accruals for the operating accruals are relevant with the company's taxable income (Guenther, 1994). Theoperating accruals is defined as:

$$CACCi,t = (\Delta ARi,t + \Delta INVi,t) - (\Delta ARi,t + \Delta AEi,t) \tag{1}$$

Where: $\Delta ARi,t$ is the change of the amount of accounts receivable between period t and t-1,; $\Delta INVi,t$ is the change of the amount of stock between period t and t-1 ; $\Delta ARi,t$ is the change of the amount of the accounts payable between period t and t-1; $\Delta AEi,t$ is the change of the amount of the accrued charges between period t and t-1. When the revenue recognition was manipulated, because of the error due to measure, the basic Jones model cannot calculate abnormal accruals profits, so we use the modified Jones model. It excludes the impact of accounts receivable, and further recognition of revenue on the business impact of accruals. Among them, the per unit operating assets accruals, operating accruals using the standard deviation of standardized after the transfer amount is profit. Model of a concrete form as follows:

$$\frac{CACC_{i,t}}{A_{i,t-1}} = C + \frac{\alpha}{A_{i,t-1}} + \frac{\beta(SALES_{i,t} - AR_{i,t})}{A_{i,t-1}} + \varepsilon_{i,t} \tag{2}$$

Taking into account of the development of China's stock market, many listed companies listed less than 10 years, and have no systematic earnings management arrangements. Therefore we will not use the time series model for empirical analysis. Then, we compare the low tax rate company and the high company tax rate so as to observed whether the earnings management changes caused by the income tax, and how the market response to earnings management. Reference Guenther (1994) compensation model approach to construct two econometric models for profit-shifting, as follows:

$$Y_{i,t} = C + \gamma \frac{EPS_t}{P_{t-1}} + \theta DEBT_t + \omega \Delta TAX_t + \varepsilon_{i,t} \tag{3}$$

Where EPS_t is the company's basic earnings per share, P_{t-1} is the opening price of the mid-period, $\frac{EPS_t}{P_{t-1}}$ is the profit motive smooth; $DEBT_t$ is the company's asset-liability ratio of the Income ΔTAX_t is Tax change.

2.3 The sample

We select all A-share listed company as research subjects, a total of 2020 to observe the new income tax law for all the companies' earnings management behavior. Taking into account of the earnings management of listed companies is a longer duration, certain stability and systemic financial strategy, so removing the companies listed after 2000, a total of 1160. Exclude financial listed companies a total of 8. Exclude non-tax expense and income tax expense is less than 0, a total of 52. Then removing the tax rate does not change and the lack of data, a total of 170. Finally, the remaining sample size was 630. Among them, the rate of increase in the number of samples is 241, the rate decreased is 389. Gather all data from the juyuan database.

3.The Empirical Results and Analysis

3.1 Earnings management and avoidance motivation and analysis of empirical results

Descriptive Statistics of variables is shown in table 1. From table1, the average operating accruals from 2001 to 2007 is slightly less than zero, reflecting the existence of the profits transfer, while profits reached the highest level of deferred 19.82, indicates that some listed companies t adopt more positive earnings management. After the tax reform of 2007, listed companies have reduce the overall tax burden and through earnings management to be postponed. Performance indicators are greater than zero mean, and standard deviation and operating accruals close to equal. It may indicate the corporate think highly of the performance improvement and earnings management, the relationship of value creation and regulation become more closely in the enterprise. Hausman tests of samples; testing result is 138.59, so we chose random effects model. Regression analysis of sample data, the model goodness of fit is 0.21, for the real economic problems, it's particularly a good fit. Function of the overall F value is 768.47, P value is 0.0000, and the credibility is good; Durbin test value 1.84, since there is no correlation between the variables; the defined symbols from the direction of the variable coefficient estimates and forecasts.

Table 1 Variable Descriptive Statistics

	CACC / A?	1 / A?	(SALE-AR) / A?
Average	-0.0940	8.72E-06	0.0713
Median	-0.0800	5.52E-06	0.0489
Max	0.8982	2.04E-04	10.9563
Minimum	-19.8203	7.27E-08	-3.5705
Standard deviation	0.3066	1.07E-05	0.3090
Skewness	-49.7288	4.7131	8.7562
Kurtosis	3177.2870	47.2104	310.9063

Empirical results are as follows.

Table 2 Result of Empirical Model I

	Coefficient	Standard deviation	P value
1/AS?	-6243.8890	269.4894	0.0000
(SALE-AR) / AS?	-0.4281	0.0118	0.0000
F value	768.4718	R value	0.2137
P value	0.0000	DW value	1.8408

Model I is significant at 1% level of confidence so it is a good description of widespread earnings management of listed companies, and the delay of the profits, mainly through the income scale and confirmed to verify the hypothesis 1. And the size of listed company was significant positive with the accruals. It also reflects that due to operational requirements by the capital market, the listed companies will broaden the financing channels, improving solvency, reduce financial risk by adjusting accruals. Operating performance of listed companies and accruals appear significant inverse relationship. To the good performance company, it passed good momentum of development and gave creditors sufficient confidence. Compared with the general performance of listed companies, their profits regulation requirements are not urgent. Thus, the larger the listed company is, the more active earnings management were carried out, but the good performance of listed companies will expand their business with part of the high quality resource, and pay less attention on earnings management, which verifies the assumptions 2.

3.2 Earnings Management and Market Reaction and Analysis of Empirical Results

mpirical analysis shows that, for the lower tax rate of listed companies in 2007, the market response and profit transfer are significant at 10% level. For the higher rate companies, market reaction and profit transfer are significant at 5% level. It indicates that the market did not react negatively to earnings management and the higher rate companies have the ability to take better earnings management. This verified the hypothesis 3.

Table 3 Empirical Results of Models II

	Decrease of Tax Rate			Increase of Tax Rate		
	Coefficient	Standard deviation	P value	Coefficient	Standard deviation	P value
C	-0.1003	0.0457	0.0288	-0.2170	0.0486	0.0000
EPS / P	0.1785	0.1026	0.0827	0.3225	0.1592	0.0435
DEBT	-0.0031	0.0007	0.0000	-0.0016	0.0008	0.0592
SIZE	4.77E-08	3.54E-08	0.1796	6.49E-08	2.92E-08	0.0268
TAX	2.40E-06	3.12E-06	0.4426	4.64E-06	3.27E-06	0.1570
F value	7.2354			5.1555		
P value	0.0000			0.0005		
R value	0.0744			0.0545		
DW value	2.1089			2.0868		

Conclusions

implementation of the new income tax law unifies the income tax rate of listed companies, and differ the tax rate of the listed companies. So it affected the company's value. Corporate will carry out earnings management before and after the tax reform in order to reduce the tax burden. This paper studies all the A-share listed companies' earnings management behavior from 2001 to 2007, and the market response to listed companies earnings management in 2007. The results showed: First, the new enterprise income tax law promotes the implementation of the earnings management of listed companies. The company with decreasing rate will implement earnings management to reduce the tax burden, but the rate of increase of the company with increasing rate are also significant take tax earnings management, perhaps because of such greater impact on those company by revenue. Second, the larger the company, the more active earnings management, this may be the company's operational needs and creditors factors. Third, the use of earnings management of listed companies to avoid tax is responded positively by the market.

References

[1] Kang S. H., Sivaramakrishnan K. Issues in Testing Earnings Management and an Instrumental Variable approach [J]. Journal of Accounting Research, 1995, 33(2): 353-367

[2] Guay W., Kothari S., Watts R. A Market-based Evaluation of Discretionary Accrual Models [J]. Journal of Accounting Research Supplement, 1996, (34): 83-115

[3] Mcnichols M. Research Design Issues in Earnings Management Studies[J]. Journal of Accounting and Public Policy, 2000,(19): 313-345

[4] Hribar P., Collins D. Errors in Estimating Accruals: Implications for Empirical Research[J]. Journal of Accounting Research, 2002, (40): 105-134

[5] Thomas J., Zhang X. J. Identifying Unexpected Accruals: a Comparison of Current Approaches[J]. Journal of Accounting and Public Policy, 2000, (19): 347-376

[6] Guenther, Earnings Management in Response to Corporate Tax Rate Changes: Evidence from the 1986 Tax Reform Act [J]. Accounting Review, 1994, 69(1): 230-243