Ownership Structure, Corporate Governance and Tax for Chinese Firms

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ABSTRACT

For all companies, profitability is a key objective. Minimization of taxes paid is a critical step in achieving that objective. However, most Chinese companies are in an unusual situation and pay more taxes than they report as tax expense. This unique tax-planning problem has resulted in Chinese firms having a cash effective tax rate being 14% higher than their GAAP effective tax rates. The goal of this paper is to investigate how ownership structure and corporate governance affect tax-planning behavior of Chinese firms. Our results shed light on optimum ownership structure and desirable corporate governance mechanism. We contribute to current literature by researching how top shareholders' ownership percentage and ownership type affect company tax planning behavior. The Chinese system includes not only a Board of Directors, but also a Board of Supervisors, tasked with monitoring the activities of the board and CEO, and monitoring the financial affairs and business activities on behalf of shareholders. We contribute to current literature by taking into consideration both Board of Directors and Board of Supervisors sizes. The Chinese tax system includes sales tax and addition, a local tax, as well as an income tax. We are the first to investigate ownership structure and corporate governance effects on sales tax and addition.

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INTRODUCTION

Maximizing profit is a key goal for all companies. Part of the equation involves minimizing expenses, including taxes, which have an unusual dual nature compared to other expenses. There is GAAP based tax expense and also the actual amount of tax paid or cash basis taxes. These two amounts can differ in a given period and over time because the rules for calculating the two are different. Companies typically want to minimize taxes. In the United States many companies are able to use the tax laws effectively to pay less tax than they report as tax expense in their financial statements. Reilly (2016) analyzed reported tax expense and the actual amount of tax paid for the top 100 Standards & Poor's companies in 2015 and found that 61 of the 100 paid less in tax than they reported as tax expense. We will call this tax savings for convenience. Companies paid an average of 2% less than they reported as tax expense. Companies reported income tax expense of 27.3% of their pre-tax income, but actually paid only 25.3%. The net tax savings for these 100 companies in this one tax year was $16.8 billion; an average of $168 million per company. When only the 61 companies that paid less than they reported as tax expense are included in the analysis, the average expense rate was 29.7% and the average amount paid was 20.6%, a 9.1% difference. Also, net tax savings jumps to $44.8 billion or an average of $734 million per company. Thus, it seems clearly beneficial for these companies to use resources to minimize the tax they actually pay. Of course, this emphasis on minimizing cash basis taxes makes sense considering the time value of money.

However, this emphasis on minimizing cash basis taxes does not hold for all countries. When we were working on a previous paper (Wang, et al. 2017) we noted that, for Chinese companies, cash basis tax paid is usually substantially in excess of GAAP tax expense. We wondered what factors influence this situation, which seems counter intuitive to us. Thus, the goal of this research is to investigate how ownership structure and other corporate governance mechanisms affect Chinese firm's tax planning behavior.

We fill the void in current research by analyzing how top shareholders' ownership percentage and ownership type affect company tax planning behavior. The Chinese system includes not only a Board of Directors, but also a Board of Supervisors, tasked with monitoring the activities of the board and CEO, and monitoring the financial affairs and business activities on behalf of shareholders. We contribute to current literature by taking into consideration Board of Supervisors size, qualified foreign investment percentage and state equity holding percentage. The Chinese tax system includes sales tax and addition, a local tax, as well as an income tax. We are the first to investigate ownership structure and corporate governance effects on sales tax and addition.

As stated by Sheng et al. (2011), China has not developed a stable legal institution for enforcing contract law nationwide, whereas the USA has a very specific framework and a structured court system. Personal interactions and social networks are relied upon to obtain resources and facilitate cooperation. Lawrence & Martin (2012) state that there is an inability or unwillingness to enforce the law among officials. The legal system and culture can affect companies' tax planning behavior. Companies could be paying more taxes than necessary to gain political favor. How the legal system and culture change companies' tax behavior is beyond the scope of this study.

China's Tax System

China imposes three major taxes: income tax, sales tax and addition, and value added tax. The basic corporate tax rate currently is 25%. Eligible small business has a lower tax rate of 20%. Eligible high-tech companies enjoy a tax rate of 15%. The tax rate preference for international companies was reduced starting in 2007 and has been eliminated as of 2011. Currently, corporate income tax revenue is shared by local and federal government with local government retaining 40%.

The sales tax rate varies from 3% to 20% depending on the industry. Sales tax in China is included in the sales price and is remitted to the government by the seller. The current sales tax rate is 3% for transportation, construction, post and telecommunications, culture and sports. It is 5% for other industries except entertainment. The entertainment industry sales tax rate can be as high as 20%, though the local government has the authority to lower it. For example, starting July 1, 2012, Tianjin province has lowered its sales tax rate for the entertainment industry from 20% to 5%. In addition to sales tax, the company will also bear a consumption tax. Consumption tax is also included in sales price and remitted by the seller to the taxing authority. Consumption tax is designed to regulate the consumption structure. Most commodities do not have consumption tax. For commodities that have consumption tax, the rate depends on the commodity. It can vary from 1% to 56% of the value of the commodity or it can be a fixed amount. The highest consumption tax is imposed on cigarettes and varies from 30% to 56%. Consumption tax for cosmetic products is 30%. It is 5 to 25% for alcoholic beverages. Besides consumption tax, sales tax addition also includes resource tax, education tax, land appreciation tax, city development tax, etc. Currently, sales tax and addition are a local tax revenue.

The basic value added tax rate is 13% for domestic products, 17% for imported products, and 0% for exported products. There are exceptions to the basic value added tax rate. Such as, China does not encourage crude oil exporting. Thus, crude oil exporting does not enjoy a favorable value added tax rate. Value added tax revenue is currently shared between the local and federal government. Local government retains 25%. Value added tax is not included in the sales price. It is separately paid by the consumer and is not reported by the publicly listed companies, we thus cannot get value added tax information. Therefore, this paper only analyzes the sales tax and addition and income tax obligation of publicly listed companies. The above is only a summary of the China tax laws. Please refer to China State Administration of Taxation publications for details.

Chinese Corporate Governance Mechanism

Chinese publicly listed firms have two supervising boards. Besides board of directors (BOD), Chinese firms are required to have board of supervisors (BOS). BOS members are selected by shareholders and company employees, with company employees selecting no less than one third of the members. BOS parallels with BOD. According to China's Company Law, the responsibilities of the Supervisory Committee include: Reviewing the financial affairs of the company; monitoring the performance of directors and executives; removal of directors or senior officers in the case of violation of laws, administrative regulations or articles of association; Requiring rectification from

directors or executives if they harm to company interests; proposing interim shareholder meetings; convening shareholder meetings when the board of directors does not do so as required by law; submitting proposals at the shareholders meeting; filing suit against directors or executives if they harm the company while performing their duties; exercising other authorities set out in the articles of association.

LITERATURE REVIEW

Ownership structure influences companies in many ways. Large investors as a mechanism of corporate governance has been documented (Shleifer & Vishny, 1997; Gillan & Starks, 2003; Cornett, Marcus & Tehranian, 2008). Shleifer and Vishny (1997) say that corporate governance has to do with the ways in which providers of capital assure themselves of getting a return on their investment, and corporate governance is typically exercised by large investors. They believe that legal protection of investor rights is an essential requirement for good corporate governance, and concentrated ownership is also a nearly universal method of control that helps investors to get their money back. Gillan and Starks (2003) examine the relationship between corporate governance and ownership structure, focusing on the role of institutional investors and the cross-country differences in ownership structures, including the implications of these differences for institutional investor involvement in corporate governance. They believe that institutional investors increase the liquidity, volatility, and quality of information of the markets in which they invest. The increased quality of information provided by institutional trading should result in better monitoring of corporations and in better corporate governance structures. Cornett, Marcus and Tehranian (2008) examine the impact of institutional ownership of shares, institutional investor representation on the board of directors, and independent outside directors on earnings management when incentive-based compensation policies are in effect. They find that when the aforementioned factors are present, they substantially reduce the impact of incentive-based compensation on corporate performance. However, both Shleifer & Vishny (1997) and Claessens, Djankov and Klapper (1999) acknowledge that large investors also have the potential to redistribute wealth from other investors to themselves.

Several studies document share concentration but do not make conclusions about how it affects companies. La Porta, Lopex-de-Silanes and Shleifer (1999) identify the ultimate controlling shareholders of large corporations in 27 wealthy economies. They find that, except in economies with very good shareholder protection, most notably the United States, few of these firms are widely held, rather they are typically controlled by families or the State. Majluf et al (1998) provide a descriptive analysis of economic groups in Chile. They classify the economic groups by their ownership and governance patterns and describe typical ownership structures and concentration. They note that ownership concentration of companies traded in the Chilean Stock Exchanges appears unusually high, when compared with companies traded in the Stock Exchanges of the developed world. This concentration is twofold: a few shareholders hold a significant portion of stocks in these companies and also control a significant number of companies. They make no comments about the efficacy of the Economic Group system.

Boards of directors and other supervision bodies as corporate governance mechanisms have long been recognized and studied. Wintoki, Linck & Netter (2012) use data from 600 US firms for the period 1991 – 2003 to compare board of director structure to firm performance. After controlling

for firm past performance, they find no causal relationship between board size or independence, and firm performance. Beasley et al (2000) use data from U.S companies for the period 1987 – 1997 to study the types of fraud and corporate governance mechanisms for companies in the technology, healthcare and financial services industries. They find that the types and rigor of corporate governance mechanisms differ substantially between fraud and no-fraud companies, especially in terms of the existence, independence, and diligence of audit committees and internal audit staffs.

The relationship of corporate governance and tax has been documented by many studies. Moore (2012) examines whether levels of institutional ownership are associated with levels and time-series variability in BTDs. He concludes that higher institutional ownership reduces book-tax differences (hereafter BTDs), leading to the inference of higher quality earnings and reporting. Khurana & Moser (2013) find less tax avoidance for firms held by long-term institutional shareholders. They conclude that this is due to influence of these shareholders on activities related to tax avoidance. Chen, Chen, Cheng, & Shevlin (2010) determined that family firms are less tax aggressive. They believe this is because family owners are concerned about possible penalties from the IRS and resulting damage to family reputation and also, that non-family investors will view tax aggressiveness as a means to benefit family members over non-family shareholders, which has the potential to lower stock price. Lanis and Richardson (2011) find that the inclusion of a greater proportion of outside members on the board of directors reduces the likelihood of tax aggressiveness. All firms were from the Australian Stock Exchange for the period 2001-2006. Wilson (2009) cites evidence that corporate tax shelters can be helpful in reducing a corporation's tax burden. He finds that firms using tax shelters have larger BTDs and are more aggressive in their financial reporting practices. Firms that also have strong corporate governance exhibit positive abnormal returns and, thus, increased returns to investors during the period of the tax shelter activity.

Incentive based compensation as a corporate governance tool is beyond the scope of this study. However, many researchers have documented that incentive-based compensation can significantly influence a company's tax practice. Minnick and Noga (2010) use data from S&P 500 companies from 1996 to 2005 to examine how governance mechanisms affect the various components of taxes. They find that incentive compensation encourages managers to make investments into projects that have long run benefits such as tax management. They also find that the investment into tax management benefits shareholders and results in higher returns to shareholders. Desai and Dharmapala (2005) examine the impact of incentive compensation on tax avoidance activity. They find that incentive compensation is associated with lower levels of tax sheltering for the typical firm although this effect is less for some well-governed firms. These findings help explain the growing variation among firms in their levels of tax avoidance. As managers apparently avoid tax sheltering activities to increase reported net income and thus increase incentive compensation, shareholders experience negative abnormal returns, since they do not benefit from sheltering activities. Xian, Sun, and Zhang (2015) study is based on correlating executive equity-based compensation and effective tax planning. It is expected that equity-based compensation for executives helps line up shareholder and management desired outcomes regarding the corporate performance. The results consistently show that the association between book-tax differences and tax planning increases with executives' equity-based compensation and

that the association between book-tax differences and earnings management decreases with executives' equity-based compensation. They further state that GAAP effective tax rate (hereafter GAAP ETR) is lower when there is more executive equity compensation. Armstrong, Blouin, & Larcker (2012) find that incentive compensation of the tax director exhibits a strong negative relationship with the GAAP ETR, indicating that tax directors are provided with incentives to reduce the level of tax expense reported in the financial statements.

Tax shelter, tax aggressiveness and tax rates form another stream of research. Frank, Lynch and Rego (2009) investigate the relationship between aggressive tax and aggressive financial reporting. They find a strong positive relationship between aggressive tax and aggressive financial reporting. Grahama & Tuckerb (2006) investigate the size of tax shelter activity and whether participating in a shelter is related to corporate debt policy. They find that the shelters produced very large tax deductions averaging approximately nine percent of asset value, which was more than three times as large as interest deductions for comparable companies. They also find that tax shelter firms use less debt. Hanlon & Slemrod (2009) examine the stock price reaction to news about corporate tax aggressiveness and find that a company's stock price declines when there is news about its involvement in tax shelters. Mills, Erickson & Maydew (1998) find that larger firms spend proportionately less on tax planning than small firms, firms with foreign operations invest more heavily in tax planning than do firms without foreign operations, and capital intensity and the number of entities in the firm are positively related to firm expenditures on tax planning. Yin (2003) confirms findings of earlier studies that there was an increasing gap between reported corporate tax expense and book profits during the period 1995-2000. Dyreng, Hanlon & Maydew (2008) find approximately one quarter of the firms able to maintain long term effective tax rate below 20 percent, while the sample average was 30 percent.

Other research focuses on credit ratings and earnings management. Miiller & Martinez (2016) find that BTDs do not impact credit ratings while Ayers, Laplante, and McGuire (2010) document a significant negative association between positive changes in BTDs and credit rating changes. Chen, Dhaliwal & Trombley (2012) document that high earnings management firms have both less informative book income and less informative taxable income relative to low earnings management firms. Phillips, Pincus & Rego (2003) indicate a relation between book and tax reporting and firms' incentives to engage in earnings management activities. Badertscher, Phillips, Pincus, & Rego (2009) indicate if there is a restatement of earnings, then the quality of the original reporting is poor, whether associated with tax or non-tax earnings management.

The objective of this study is to investigate how ownership structure and other corporate governance mechanisms affect Chinese firm’s tax planning behavior. The following section presents methodological choices. The last two sections discuss empirical results and provide concluding comments.

METHODOLOGY

Our data is collected from China Stock Market & Accounting Research Database (CSMAR). The annual data ranging from 2011 to 2016 are used. Tax rates can mean many things. We first provide our definitions in the following section.

Effective Income Tax Rate (GAAP EITR and Cash EITR)

We use two standard measures to define effective tax rate, which have been adopted by many other studies (Dyreng, Hanlon, and Maydew 2010; Dyreng, Hanlon, and Maydew 2008). First, the effective corporate income tax rate is as defined under GAAP, total income tax expense divided by pre-tax accounting income. Second, the effective corporate income tax rate is defined on a cash basis as cash income taxes paid divided by pre-tax accounting income. The first measure will capture tax expense for financial reporting purposes (hereafter GAAP EITR). The second measure will capture cash basis tax expense (hereafter cash EITR).

There is only one tax item reported on the cash flow statement, that is cash paid for taxes. We cannot separate how much is paid for income tax and how much is paid for sales tax and addition. Due to this limitation, we have to make the assumption that sales tax and addition expense roughly equals cash paid for sales tax and addition.

Cash income tax= Total cash paid for taxes-Sales tax and addition expense (1)

Effective Sales Tax and Addition Rate (ESTAR)

There are very few studies about sales tax and addition. We venture to define effective sales tax and addition rate the same way as effective income tax. Effective sales tax and addition rate is sales tax and addition expense divided by pre-tax accounting income (hereafter ESTAR). As we mentioned previously, we are unable to identify how much cash is paid for sales tax and addition, we thus make the assumption that cash paid for sales tax and addition equals sales tax and addition expense. ESTAR serves as both cash and GAAP ESTAR.

Overall Effective Tax Rate (GAAP ETR and Cash ETR)

We define a company's overall GAAP ETR as sales tax and addition and income tax expense divided by pre-tax accounting income. We define a company's overall cash ETR as total cash paid for taxes divided by pre-tax accounting income.

BTD

Prior studies look at both long and short term BTDs (Wilson 2009; Badertscher et al., 2009; Hanlon 2005). BTD is estimated and divided into temporary and permanent components (Ayers et al., 2010; Frank et al., 2009; Hanlon 2005). We instead focus on temporary BTD and use the difference between reported cash and GAAP ETR as the BTD measure. Due to the unique situation in China where Cash ETR typically is higher than GAAP ETR, we define BTD as Cash ETR-GAAP ETR.

BTD=Cash ETR-GAAP ETR (2)

Model Development

Ownership structure can make a difference in corporate governance and thus tax strategies. Prior studies conclude that institutional owners have relatively strong incentive and ability to oversee executives' activities and thus provide more effective monitoring (Gillan & Starks, 2003; Schleifer & Vishny, 1997). We consider state as an unique institutional owner. We separately analyze qualified foreign investment. We isolate the top ten shareholders for each company year and manually identify top shareholders who are individuals instead of institutions. We separately analyze top ten shareholders' share concentration and individual influential shareholders effects on tax. Management entrenchment, which is the duality of CEO and chair of BOD position, can pose potential corporate governance problem. Other corporate governance aspects include BOD size, independent directors' percentage in BOD and Board of Supervisors size. We control for company specific data in our analysis, including industry, size, asset mix, leverage, and previous year loss. We thus derive our models.

Model 1: BTD= β0 + β1PrivateTopTen + β2QualifiedForeignInvestment% + β3 Top2-10ShareholderOwnership% + β4TopShareholderOwnership% + β5DualityCEOBODChair + β6 BoardOfSupervisorsSize + β7BoardOfDirectorsSize + β8 IndependentBOD% + β9StateOwnership% + β10Financial + β11Utilities + β12RealEstate + β13Wholesale&Retail + β14Size + β15AssetMix + β16Leverage + β17PreviousYearLoss +ε

Models 2-4: We use GAAP EITR, Cash EITR, and ESTAR as the dependent variable instead of BTD, respectively.

Where:

- PrivateTopTen is 1 if one or more of the top ten shareholders is/are private person(s) instead of an institution.
- QualifiedForeignInvestment% is qualified foreign investment percentage.
- Top2-10ShareholderOwnership% is the total of the top 2 to 10 shareholders' ownership percentage.
- TopShareholderOwnership% is the top shareholder's ownership percentage.
- DualityCEOBODChair is 1 if CEO also serves as BOD chair and 0 otherwise.
- BoardOfSupervisorsSize is total member of Board of Supervisors scaled by natural log of sales.
- BoardOfDirectorsSize is total member of Board of Directors scaled by natural log of sales.
- IndependentBOD% is the percentage of independent directors in BOD.
- StateOwnership% is state ownership percentage.
- Financial, Utilities, RealEstate, and Wholesale&Retail are different industries. The baseline industries are manufacturing and complex industries.
- Size is the natural log of sales.
- AssetMix is capital asset scaled by total asset.
- Leverage=beginning total debt/ beginning total asset.
- Previous year loss=1 if previous year has a loss, 0 otherwise.

RESULTS

As illustrated in Table 1, China listed firms' median cash ETR is higher than GAAP ETR by 14%. Book-tax difference is defined as cash ETR minus GAAP ETR due to this unique situation. The median GAAP ETR is about 21%. However, cash ETR median is close to 39%. China listed firms' foreign investment shares are minimal with a mean of 0.21% and a median of 0. State ownerships are also minimal with a mean of 4.46% and a median of 0. The ownership is highly concentrated with the top 10 shareholder's ownership percentage of around 60%. About one third of BOD members are independent. Long term assets make up about 40% of the total assets and about 40% of firm assets are financed with borrowed money.

In addition, about 80% of firms have at least one private person as one of their top 10 shareholders. The CEO is also the BOD chair for about 27% of firms. This information is calculated and is not included in Table 1.

Table 1: Descriptive Statistics

	Mean	Median
Book-tax difference	12.56%	14.19%
GAAP EITR	14.91%	15.09%
Cash EITR	27.46%	30.15%
ESTAR	8.03%	5.14%
GAAP ETR	22.93%	20.84%
Cash ETR	35.49%	38.69%
Qualified foreign investment %	0.21%	0
State ownership %	4.46%	0.00%
Top shareholder ownership %	35.34%	33.52%
Top 2-10 shareholders ownership %	24.60%	23.44%
Independent BOD %	37.28%	33.33%
Asset mix	41.52%	39.81%
Leverage	45.50%	39.46%

Table 2 shows that ownership structure significantly influences book-tax difference. BTD is lower by 3.61% when one or more of the top ten shareholders is/are individual(s) instead of institutions. Since cash ETR is much higher than GAAP ETR and BTD is calculated as cash ETR minus GAAP ETR, the finding indicates that influential private shareholders will significantly improve tax management and save company cash. Concentration of institutional ownership will do the opposite. The higher the institutional ownership percentage, the higher the BTD. We separately analyze the number one shareholder and the remaining top 2 to 10 shareholders. If the top two to ten shareholders are institutions, their concentrated ownership tends to exacerbate the tax planning problems and increase BTD by 0.11% for every 1% increase in the collective ownership. The number one shareholder's share concentration does not make BTD significantly larger. However, the number one shareholder's share concentration significantly increases both Cash and GAAP EITR as we illustrate later. CEO serving as BOD chair improves tax planning. It reduces BTD by 1.77%. Board of Supervisors will report directly to shareholders and supervise management and directors' behavior and day-to-day operation of the firm. The result proves that

a bigger Board of Supervisors is beneficial in the sense that it improves tax planning. A bigger BOD increases BTD because it significantly reduces GAAP EITR as we will illustrate later. Industries contribute to BTD, part of it could be due to tax treatment differences for different industries. Bigger firms have higher BTD. Long-term asset concentration and previous year loss both reduces BTD.

Table 2: BTD, Ownership Structure & Corporate Governance
Dependent variable: BTD; Overall model: $p<0.0001$; Adjusted $R2=0.0392$; Sample size: 9,458

Variable	Parameter	Standard	t Value	Pr > |t|	Variance
Intercept	0.0165	0.0687	0.24	0.8098	0
PrivateTopTen	-0.0361	0.0089	-4.07	<.0001	1.2724
QualifiedForeignInvestment%	0.3289	0.1969	1.67	0.0948	1.0408
Top2-10ShareholderOwnership%	0.1052	0.0271	3.88	0.0001	1.2873
TopShareholderOwnership%	0.0450	0.0240	1.88	0.0607	1.3732
DualityCEOBODChair	-0.0177	0.0075	-2.36	0.0181	1.0905
BoardOfSupervisorsSize	-0.2006	0.0670	-3.00	0.0027	1.2678
BoardOfDirectorsSize	0.1040	0.0486	2.14	0.0323	1.5205
IndependentBOD%	0.0441	0.0648	0.68	0.4964	1.2964
StateOwnership%	0.0281	0.0248	1.14	0.2563	1.1212
Financial	-0.1969	0.0238	-8.27	<.0001	1.2476
Utilities	-0.0312	0.0085	-3.69	0.0002	1.0669
RealEstate	-0.1649	0.0146	-11.28	<.0001	1.1006
Wholesale&Retail	0.0162	0.0150	1.08	0.2821	1.0436
Size	0.0058	0.0024	2.44	0.0145	1.3575
AssetMix	-0.0399	0.0156	-2.56	0.0105	1.1645
Leverage	-0.0050	0.0040	-1.25	0.2123	1.0356
PreviousYearLoss	-0.1348	0.0132	-10.22	<.0001	1.0636

According to Table 3, the higher the concentration of ownership, the higher GAAP EITR will be. Here both the number one shareholder and the top 2 to 10 shareholders' share concentration increases GAAP EITR significantly. For every 1% increase of shareholder concentration, GAAP EITR increases by 0.04-0.05%. Bigger BOD will reduce GAAP EITR while bigger Board of Supervisors will not affect it. Industries are contributing factors most likely due to the different tax treatment for different industries. The complex and manufacturing industries, which are the base industries for comparison, have significantly lower GAAP EITR compared to all other industries. Bigger firms have higher GAAP EITR. Previous year loss lowers GAAP EITR.

Table 3: GAAP EITR, ownership structure & corporate governance
Dependent variable: GAAP EITR; Overall model: p<0.0001; Adjusted R2=0.0871; Sample size: 9,458

Variable	Paramete	Standard	t Value	Pr > |t|	Variance
Intercept	-0.0754	0.0228	-3.30	0.0010	0
PrivateTopTen	0.0012	0.0029	0.40	0.6861	1.2724
QualifiedForeignInvestment%	-0.0001	0.0654	-0.00	0.9987	1.0408
Top2-10ShareholderOwnership%	0.0534	0.0090	5.93	<.0001	1.2873
TopShareholderOwnership%	0.0415	0.0080	5.20	<.0001	1.3732
DualityCEOBODChair	-0.0017	0.0025	-0.67	0.5014	1.0905
BoardOfSupervisorsSize	0.0202	0.0222	0.91	0.3641	1.2678
BoardOfDirectorsSize	-0.0620	0.0161	-3.84	0.0001	1.5205
IndependentBOD%	-0.0355	0.0215	-1.65	0.0992	1.2964
StateOwnership%	-0.0133	0.0082	-1.62	0.1058	1.1212
Financial	0.0557	0.0079	7.05	<.0001	1.2476
Utilities	0.0155	0.0028	5.52	<.0001	1.0669
RealEstate	0.0596	0.0049	12.27	<.0001	1.1006
Wholesale&Retail	0.0517	0.0050	10.34	<.0001	1.0436
Size	0.0109	0.0008	13.81	<.0001	1.3575
AssetMix	-0.0060	0.0052	-1.15	0.2506	1.1645
Leverage	-0.0024	0.0013	-1.83	0.0669	1.0356
PreviousYearLoss	-0.0449	0.0044	-10.26	<.0001	1.0636

Table 4 shows that one or more of the top ten shareholders being individual(s) instead of institutions significantly reduces cash EITR by 3.49%. Concentration of ownership significantly increases cash EITR. Being the number one shareholder does not change the behavior. The higher the top ten shareholders' ownership percentage, the higher cash EITR. CEO serving as BOD chair decreases cash EITR by about 2%. A bigger Board of Supervisors significantly lowers cash EITR. Industries are contributing factors of cash EITR. Bigger firms have higher cash EITR. Heavier concentration of long-term assets and previous year loss both lower cash EITR.

Table 4: Cash EITR, ownership structure & corporate governance
Dependent variable: Cash EITR; Overall model: p<0.0001; Adjusted R2=0.0495; Sample size: 9,458

Variable	Parameter	Standard	t Value	Pr > |t|	Variance
Intercept	-0.0588	0.0719	-0.82	0.4133	0
PrivateTopTen	-0.0349	0.0093	-3.76	0.0002	1.2724
QualifiedForeignInvestment%	0.3288	0.2061	1.60	0.1106	1.0408
Top2-10ShareholderOwnership%	0.1586	0.0284	5.59	<.0001	1.2873

Variable	Parameter	Standard	t Value	Pr > |t|	Variance
TopShareholderOwnership%	0.0864	0.0251	3.44	0.0006	1.3732
DualityCEOBODChair	-0.0194	0.0078	-2.47	0.0135	1.0905
BoardOfSupervisorsSize	-0.1804	0.0701	-2.57	0.0101	1.2678
BoardOfDirectorsSize	0.0420	0.0508	0.83	0.4090	1.5205
IndependentBOD%	0.0086	0.0678	0.13	0.8992	1.2964
StateOwnership%	0.0148	0.0259	0.57	0.5679	1.1212
Financial	-0.1412	0.0249	-5.67	<.0001	1.2476
Utilities	-0.0157	0.0088	-1.77	0.0762	1.0669
RealEstate	-0.1053	0.0153	-6.88	<.0001	1.1006
Wholesale&Retail	0.0678	0.0158	4.31	<.0001	1.0436
Size	0.0167	0.0025	6.72	<.0001	1.3575
AssetMix	-0.0459	0.0163	-2.81	0.0049	1.1645
Leverage	-0.0074	0.0042	-1.77	0.0762	1.0356
PreviousYearLoss	-0.1797	0.0138	-13.02	<.0001	1.0636

As shown in Table 5, higher concentration of ownership significantly lowers ESTAR. Duality of CEO and BOD chair significantly lowers ESTAR by 0.7%. Industries contribute to ESTAR. Bigger firms have higher ESTAR. Higher long-term asset concentration and previous year loss both lower ESTAR.

Table 5: ESTAR, ownership structure & corporate governance
Dependent Variable: ESTAR; Overall model: $p<0.0001$; Adjusted $R2=0.2426$; Sample size: 9,458

Variable	Parameter	Standard	t Value	Pr > |t|	Variance
Intercept	-0.1295	0.0241	-5.37	<.0001	0
PrivateTopTen	-0.0020	0.0031	-0.64	0.5235	1.2724
QualifiedForeignInvestment%	0.0022	0.0691	0.03	0.9749	1.0408
Top2-10ShareholderOwnership%	-0.0412	0.0095	-4.33	<.0001	1.2873
TopShareholderOwnership%	-0.0260	0.0084	-3.09	0.0020	1.3732
DualityCEOBODChair	-0.0072	0.0026	-2.72	0.0065	1.0905
BoardOfSupervisorsSize	0.0046	0.0235	0.20	0.8446	1.2678
BoardOfDirectorsSize	-0.0046	0.0170	-0.27	0.7887	1.5205
IndependentBOD%	0.0062	0.0227	0.27	0.7850	1.2964
StateOwnership%	0.0168	0.0087	1.94	0.0528	1.1212
Financial	0.0302	0.0084	3.61	0.0003	1.2476
Utilities	0.0337	0.0030	11.39	<.0001	1.0669
RealEstate	0.2314	0.0051	45.14	<.0001	1.1006
Wholesale&Retail	0.0549	0.0053	10.40	<.0001	1.0436
Size	0.0109	0.0008	13.15	<.0001	1.3575

Variable	Parameter	Standard	t Value	Pr > |t|	Variance
AssetMix	-0.0493	0.0055	-9.01	<.0001	1.1645
Leverage	0.0017	0.0014	1.21	0.2263	1.0356
PreviousYearLoss	-0.0237	0.0046	-5.12	<.0001	1.0636

CONCLUSION

Overall, China listed firms have a unique tax planning problem with cash ETR being 14% higher than GAAP ETR. Influential private investors will improve cash EITR management and thus reduce BTD. One or more of the top ten shareholders being private investor(s) lowers cash EITR by 3.49% and BTD by 3.61%. Encouraging private shareholders' participation in the company's operation can be a very cost-effective tax management tool.

Although concentration of ownership significantly reduces ESTAR, it significantly increases BTD, GAAP EITR, and cash EITR. China listed firms have highly concentrated shareholders with the top 10 shareholder's ownership percentage of around 60%. We believe systematic approach to diversify ownership will be beneficial. As we pointed out before, sales tax and addition are a local tax revenue and income tax is shared by local and federal government. We believe institutional shareholders can be powerful in negotiating terms with local governments but overlooked income tax management. If diversification of ownership proves to be impractical, deemphasize institutional shareholders' role in income tax planning and divert their effort to relationship building with local governments can be helpful as well.

A Bigger Board of Supervisors will reduce cash EITR while a bigger Board of Directors will reduce GAAP EITR. They are both beneficial for tax planning purposes. However, both boards have no significant influence on ESTAR. Companies can explore the practice of giving Boards of Supervisors and Directors more responsibilities on income tax planning combined with delegating relationship building with local governments to institutional shareholders.

Duality of CEO and BOD chair significantly reduces BTD, cash EITR and ESTAR by 1.77%, 1.94% and 0.72%, respectively. It is a practice that is surprisingly beneficial. We suggest companies carefully evaluate the pros and cons before applying this practice.

Our findings have practical implications. Alleviating the ownership concentration and appointing bigger Boards of Directors and Supervisors can improve tax planning and save company money. Although our findings suggest duality of CEO and BOD chair can be beneficial and lower tax rates, we caution companies to consider this option carefully before adopting this practice. Our research on BTD and tax rates are limited to corporate ownership structures and governance. Executive cash and incentive-based compensation, BOD and BOS members' compensation, earnings management, and external auditors can be contributing factors.

REFERENCES

Armstrong, C. S., Blouin, J. L., & Larcker, D. F. (2012). The incentives for tax planning. Journal of Accounting & Economics, 53(1/2), 391-411.

Ayers, B., Laplante, S., & McGuire, S. (2010). Credit ratings and taxes: The effect of book/tax differences on ratings changes. Contemporary Accounting Research, 27(2), 359-402.

Badertscher, B., Phillips, J., Pincus, M., & Rego, S. (2009). Earnings management strategies and the trade-off between tax benefits and detection risk: To conform or not to conform. The accounting Review, 84(1), 63-97.

Beasley, M., Carcello, J., Hermanson, D., & Lapides, P. (2000). Fraudulent financial reporting: Consideration of industry traits and corporate governance mechanisms. Accounting horizons, 14(4), 441-454.

Chen, L. H., Dhaliwal, D. S., & Trombley, M. A. (2012). Consistency of book-tax differences and the information content of earnings Journal of the American Taxation Association, 34(2), 93-116.

Chen, S., Chen, X., Cheng, Q. & Shevlin, T. (2010). Are family firms more tax avoidance than non-family firms. Journal of Financial Economics, 95(1), 41 – 61.

Claessens, S., Djankov, S., & Klapper, L. (1999b). The role and functioning of business groups in east Asia and Chile. Abante, 3(1), 91-107.

Cornett, M. M., Marcus, A., & Tehranian, H. (2008). Corporate governance and pay-for-performance: The impact of earnings management; Journal of Financial Economics, 87(2), 357-373.

Desai, M.A. & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives. Journal of Financial Economics, 79, 145-179.

Dyreng, S.D., Hanlon, M. & Maydew, E.L. (2010). The effects of executives on corporate tax avoidance. The Accounting Review, 85(4), 1163-1189.

Dyreng, S., Hanlon, M., & Maydew, E. L. (2008). Long-run corporate tax avoidance. The Accounting Review, 83 (1), 61–82.

Frank, M. M., Lynch, L., & Rego, S. (2009). Tax reporting aggressiveness and its relation to aggressive financial reporting. The Accounting Review, 84(2), 467-496.

Gillan, S., & Starks, L. (2003). Corporate governance, corporate ownership, and the role of institutional investors: A global perspective. Journal of Applied Finance, 13(2), 4-22.

Graham, J.R. & Tucker, A.L. (2006). Tax shelters and corporate debt policy. Journal of Financial Economics, 81, 563-594.

Hanlon, M. (2005). The persistence and pricing of earnings, accruals, and cash flows when firms have large book-tax differences. The Accounting Review, 80(1), 137-166.

Hanlon, M. & Slemrod, J. (2009). What does tax aggressiveness signal? Evidence from stock price reactions to news about tax shelter involvement. Journal of Public Economics, 93: 126-141.

Khurana I. & Moser, W. J. (2013). Institutional shareholders' investment horizons and tax avoidance. Journal of American Taxation Association, 35(1), 111-134.

Lanis, R., & Richardson, G. (2011). The effect of board of director composition on corporate tax aggressiveness. Journal of Accounting and Public Policy, 30(1), 50-70.

La Porta, R., Lopez-de-Silanes, F. & Shleifer, A. (1999). Corporate ownership around the world. Journal of Finance, 54(2), 471-517.

Lawrence, S., & Martin, M. (2013). Understanding China's political system. Congressional Research Service. Retrieved from: https://fas.org/sgp/crs/row/R41007.pdf

Majluf, N., Abarca, N., Rodriguez, D., & Fuentes, L. A. (1998). Governance and ownership structure in Chilean economic groups. Abante, 1(1), 111-139.

Miiller, D. L., & Martinez, A. L. (2016). Book-tax difference, earnings management and bond ratings in the Brazilian Market. Revista Universo Contábil, 12(3), 91-109.

Mills, L., Erickson, M. & Maydew, E. (1998). Investments in tax planning. Journal of the American Taxation Association, 20(1), 1 - 20.

Minnick, K., & Noga, T. (2010). Do corporate governance characteristics influence tax management? Journal of Corporate Finance, 16, 703-718.

Moore, J. A. (2012). Empirical evidence on the impact of external monitoring on book-tax differences. Advances in Accounting, incorporating Advances in International Accounting, 28, 254-269.

Phillips, J., Pincus, M., & Rego, S. O. (2003). Earnings management: new evidence based on deferred tax expense. The Accounting Review, 78(2), 491-521.

Reilly, P. J. (11/7/2016). Top 100 S&P companies averaged 25% in income taxes actually paid. Taxes.

Sheng, S, Zhou, K. Z., & Li, J.J. (2011). The effects of business and political ties on performance: evidence from China. Journal of Marketing, 75(1), 1-15.

Schleifer, A., & Vishny, R. (1997). A survey of corporate governance. Journal of Finance, 52(2), 737-783.

Wang, Y, Campbell, M, Gai, X, & Johnson, D. (2016). A Comprehensive Study of Cash and GAAP ETRs of China Publicly Listed Companies. The Journal of Business and Finance Research, 6(2), 24-42.

Wilson, R. (2009). An examination of corporate tax shelter participants. The Accounting Review, 84(3), 969-999.

Wintoki, M. B., Linck, J.S. & Netter, J.M. (2012). Endogeneity and the dynamics of internal corporate governance. Journal of Financial Economics, 105, 581-606.

Xian, C, Sun, F., & Zhang, Y. (2015). Book-tax differences: are they affected by equity-based compensation? Accounting Research Journal, 28(3), 300-318.

Yin, G. (2003). How much tax do large public corporation pay? Estimating the effective tax rates of the S &P 500. Virginia Law Review, 89(8), 1,793 – 1,856.

APPENDIX A: DEFINITION OF VARIABLES

GAAP EITR	=Tax expense/Pretax accounting income
Cash EITR	=(Tax paid-tax refund-sales tax & addition)/Pretax accounting income
Effective Sales Tax and Addition Rate (ESTAR)	=Sales tax & addition/Pretax accounting income
Overall GAAP ETR	=(Tax expense+sales tax & addition)/Pretax accounting income
Overall Cash ETR	Overall Cash ETR=(Tax paid-tax refund)/Pretax accounting income
BTD	=Overall Cash ETR-Overall GAAP ETR
PrivateTopTen	=1 if one or more of the top ten shareholders is/are private person(s) instead of an institution and 0 otherwise
QualifiedForeignInvestment%	=Qualified foreign investment percentage
Top2-10ShareholderOwnership%	=The total of the top 2 to 10 shareholders' ownership percentage
TopShareholderOwnership%	=Top shareholder's ownership percentage.
DualityCEOBODChair	=1 if CEO also serves as BOD chair and 0 otherwise
BoardOfSupervisorsSize	= Total member of Board of Supervisors/ln(sales)
BoardOfDirectorsSize	=Total member of Board of Directors/ln(sales)
IndependentBOD%	=Percentage of independent directors in Board of Directors
StateOwnership%	=State ownership percentage
Financial	Financial industry dummy=1
Utilities	Utilities industry dummy=1
RealEstate	Real estate industry dummy=1
Manufacturing	Manufacturing industry dummy=1
Wholesale&Retail	Wholesale and retail industry dummy=1
Size	=ln(sales)
AssetMix	=Capital asset/total asset
Leverage	=Beginning total debt/beginning total asset
PreviousYearLoss	=1 if previous year has a loss