

EMPIRICAL EVIDENCE OF EFFECTIVE TAX RATES

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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 cash 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.

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 [25] 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. When we were working on a previous paper, 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.

LITERATURE REVIEW

Large investors as a mechanism of corporate governance has been extensively documented. Shleifer and Vishny [26] 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. However, Shleifer and Vishny [26] acknowledge that large investors also have the potential to redistribute wealth from other investors to themselves. Gillan and Starks [12] believe that institutional investors increase the liquidity, volatility, and quality of information of the markets in which they invest. La Porta, Lopex-de-Silanes and Shleifer [18] 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 [19] 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.

Boards of directors and other supervision bodies as corporate governance mechanisms have long been recognized and studied. Cornett, Marcus and Tehranian [7] 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. Wintoki, Linck & Netter [28] find no causal relationship between board size or independence, and firm performance. Beasley et al [4] 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. Wilson [27] cites evidence that corporate tax shelters can be helpful in reducing a corporation's tax burden. Minnick and Noga [22] find that incentive compensation encourages managers to make investments into projects that have long run benefits such as tax management. Dyreng, Hanlon and Maydew [9] find that individual executives do have substantial impact on the level of tax avoidance for their firms. Desai and Dharmapala [8] 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. Lanis and Richardson [17] find that the inclusion of a greater proportion of outside members on the board of directors reduces the likelihood of tax aggressiveness. Chen, Chen, Cheng, & Shevlin [6] determined that family firms are less tax aggressive. Xian, Sun, and Zhang [29] 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 [1] 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. Moore [23] concludes that higher institutional ownership reduces BTDs, leading to the inference of higher quality earnings and reporting. Khurana & Moser [16] find less tax avoidance for firms held by long-term institutional shareholders.

Tax shelter, tax aggressiveness and tax rates form another stream of research. Frank, Lynch and Rego [11] find a strong positive relationship between aggressive tax and aggressive financial reporting. Grahama & Tuckerb [13] 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 [15] 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 [21] 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 [30] 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 [10] 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 [20] find that BTDs do not impact credit ratings while Ayers, Laplante, and McGuire [2] document a significant negative association between positive changes in BTDs and credit rating changes. Chen, Dhaliwal & Trombley [5] 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 [24] indicate a relation between book and tax reporting and firms' incentives to engage in earnings management activities. Badertscher, Phillips, Pincus, & Rego [3] 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.

METHODOLOGY

Our data is collected from China Stock Market & Accounting Research Database (CSMAR). The data range is from 2011 to 2016. 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.

$$\text{Cash income tax} = \text{Total cash paid for taxes} - \text{Sales tax and addition expense} \quad (1)$$

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 [27] [3] [14]. 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.

$$\text{BTD} = \text{Cash ETR} - \text{GAAP ETR} \quad (2)$$

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 [12] [26]. We consider state as a 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.

$$\text{Model 1: } \text{BTD} = \beta_0 + \beta_1 \text{PrivateTopTen} + \beta_2 \text{QualifiedForeignInvestment\%} + \beta_3 \text{Top2-10ShareholderOwnership\%} + \beta_4 \text{TopShareholderOwnership\%} + \beta_5 \text{DualityCEOBODChair} + \beta_6 \text{BoardOfSupervisorsSize} + \beta_7 \text{BoardOfDirectorsSize} + \beta_8 \text{IndependentBOD\%} + \beta_9 \text{StateOwnership\%} + \beta_{10} \text{Financial} + \beta_{11} \text{Utilities} + \beta_{12} \text{RealEstate} + \beta_{13} \text{Manufacturing} + \beta_{14} \text{Wholesale\&Retail} + \beta_{15} \text{Size} + \beta_{16} \text{AssetMix} + \beta_{17} \text{Leverage} + \beta_{18} \text{PreviousYearLoss} + \varepsilon$$

Models 2-4: We use GAAP ETR, Cash ETR, 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, Manufacturing, and Wholesale&Retail are different industries. The baseline industry is complex industry.

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.

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 ETR management and thus reduce BTD. Although concentration of ownership significantly reduces ESTAR, it significantly increases BTD, GAAP ETR, and cash ETR. 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. A Bigger Board of Supervisors will reduce cash ETR while a bigger Board of Directors will reduce GAAP ETR. They are both beneficial for tax planning purposes. Duality of CEO and BOD chair significantly reduces BTD, cash ETR and ESTAR. 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.

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