

State Ownership, Tax and Political Promotion: Evidence from China

Mark Bradshaw

Carroll School of Management
Boston College

Guanmin Liao

School of Accountancy
Central University of Finance and Economics

Mark (Shuai) Ma

Price College of Business
The University of Oklahoma

Abstract: In state owned enterprises (SOEs), taxes are a dividend to the controlling shareholder, the state, but a cost to other shareholders. Therefore, the controlling shareholder of the SOE benefits from less tax avoidance and higher tax rates of the SOE. Using a sample of publicly traded enterprises in China, we find that SOEs have significantly higher effective income tax rates and cash tax rates than do non-SOEs, especially when the SOE managers are in the year of evaluations for political promotions and when the SOEs are controlled by local state governments rather than the central state government. We also find that, SOEs' effective tax rates are negatively associated with stock returns, but SOE managers are rewarded for higher tax rates with higher probability of political promotion. Collectively, the findings suggest that the SOEs make tax decisions favorable to the controlling shareholder, the state, but costly to the minority shareholders, and the state utilizes the SOE managers' career concerns to incentivize this behavior.

September 2012

PLEASE DO NOT MAINTAIN ELECTRONIC AVAILABILITY

We thank Jeff Cohen, Alison Koester, Zining Li and participants at Georgetown, Southern Methodist University, University of Texas at Dallas, and the 2012 Tel Aviv University Accounting Research Conference.

1. Introduction

Taxes are a significant cost to a firm, and tax avoidance is beneficial to shareholders (e.g., Chen et al. 2010).¹ However, in state owned enterprises (SOEs), taxes are a dividend to the controlling shareholder.² Thus, less tax avoidance and the resulting higher tax rates actually benefit the controlling shareholder of SOEs and are an implicit expropriation of wealth from other shareholders. Further, the fluidity of the labor market for SOE executives and bureaucratic political positions suggests that SOE executives face incentives to engage in less tax avoidance out of self-interest. Using a sample of publicly traded firms in China, we investigate whether recognized tax expense and cash taxes paid by SOEs are consistent with such tunneling of resources to the controlling shareholder.

The well-established literature on agency conflicts articulates the conflict of interest between managers and shareholders (e.g., Jensen and Meckling 1976). In this literature, managers' career concerns can alleviate agency problems and enhance shareholder value (e.g., Fama 1980; Gibbons and Murphy 1992; Brickley, Coles and Linck 1999). However, controlling shareholders create a friction that likely alters managers' incentives to maximize firm value so to benefit their careers. According to recent studies (e.g., Jiang et al. 2010) find that large block holders control most international publicly traded firms, including most European and Asian markets. Because managers' careers are subject to a greater degree of control by these large shareholders, the managers' career concerns become subject to the objectives of the controlling

¹ Following Hanlon and Heitzman (2010), we define tax avoidance as any planning behavior that can explicitly reduce a firm's tax burden. In our paper, tax avoidance does not necessarily mean anything illegal.

² Interestingly, dividends are not prevalent among Chinese companies during our sample period. Recently, the Shanghai stock exchange has initiated incentives that encourage companies to increase dividend payout ratios (*Reuters*, "China encourages companies to increase dividends," August 15, 2012) and the China Securities Regulatory Commission has finalized a dividend payment policy disclosure and is rumored to be coordinating with other government authorities to encourage dividends (*Beijing Business Today*, "CSRC has finalized plans to implement mandatory dividend payment policy," November 29, 2011).

shareholder, even though they may be anathema to minority shareholders. This risk of controlling shareholder expropriation of minority shareholders is referred to in the agency literature as “self-dealing” (Djankov et al. 2008) or “tunneling” (Johnson et al. 2000b).

As a result of Chinese economic reforms and strong growth since 1979, a large number of SOEs are publicly traded on China’s stock exchanges, but common shares owned by the state were not allowed to trade prior to 2005.³ Therefore, the state historically did not benefit from stock price appreciation. Combined with a weak institutional environment relative to western markets (discussed later in Section 2.1), the state has incentives to derive benefits through other channels, such as tunneling. Also, given distinct differences between the labor markets for SOE managers and non-SOE managers, a SOE manager faces rather limited non-SOE corporate opportunities (e.g., Li and Zhou 2005; Cao et al. 2010), further aligning SOE managers’ career concerns with those of the state. Therefore, our first prediction is that SOEs make tax decisions favorable to the state but costly to minority shareholders, captured empirically by differential tax rates and cash tax payments between SOEs and non-SOEs.

Evidence regarding tax rates and payments by SOEs is an implication of the ownership structure and incentives of Chinese SOE managers, but it is direct evidence on the supposition that SOE managers’ careers are linked to tax decisions. Thus, our second prediction is that political promotions of SOE managers are associated with tax rates and payments to the state. In China, the assignments of managers in SOEs are controlled by the state. As Li (1998) points out, most SOE managers have bureaucratic titles. For example, managers of large state owned energy

³ In July 2005, the Chinese government announced an initiative to convert non-tradable shares to tradable, which took several years to implement. However, due to weak enforcement, this initiative does not really solve the risk of controlling shareholder expropriation of minority shareholders (Jiang et al. 2010). Further, the Chinese government maintains a policy of retaining control of SOEs. Thus, even after 2005, state owned shares do not actively trade. As discussed later, currently less than half of the aggregate shares of such firms are allowed to trade.

firms have bureaucratic titles equivalent to the Vice Secretary of Energy in China. SOE managers face ongoing evaluations for political promotions, which provide further incentives for SOE managers to cater to the controlling shareholder (Li and Zhou 2005; Cao et al. 2010). SOE managers are routinely evaluated every year. However, every three years SOE managers are also evaluated for political promotions.⁴ If managers are evaluated favorably, they can be promoted to higher bureaucratic ranks; otherwise, they will be assigned to either lower or similar level political positions.

Using a sample of 1,422 unique Chinese firms for the years 2003-2007, we compare tax avoidance levels by SOEs and non-SOEs. Consistent with our prediction, we document that SOEs exhibit less tax avoidance than do non-SOEs, as captured by higher effective income tax rates and cash tax rates. The differences in both effective tax rates and cash tax rates between SOEs and non-SOEs are about 2%, after controlling for other variables, which seems economically large. For example, SOEs realized pre-tax profits of approximately RMB 5 trillion during our sample period, implying that the SOEs incurred excess taxes of approximately RMB 100 billion relative to that of their non-SOE counterparts. Also supporting our second prediction, we find that the probability an SOE manager is promoted to a higher level bureaucratic position is positively associated with the tax burden of the SOE they manage. Overall, these findings are consistent with SOE managers making tax decisions favorable to the state but costly to minority shareholders, and the state rewarding the SOE managers in the form of political promotions.⁵ The results are robust to controlling for a number of factors and several other tests (as described below).

⁴ Of course, occasionally managers are terminated before a three-year evaluation.

⁵ Of course, we are cognizant that there are surely other incentives than lower tax avoidance that are associated with promotions.

We further examine the validity of this result by investigating whether SOE managers are most likely to make tax decisions more favorable to the state *in the specific year* of evaluations for political promotions, which operate on a three-year cycle. Prior studies argue that managers tend to be myopic (e.g. Bhojraj and Libby 2005); if descriptive of our sample managers, they may be more concerned about promotion evaluations in the third year than in the first two years of the evaluation cycle. Therefore, we predict that SOE managers are most keen to make tax decisions more favorable to the state in the third year of the evaluation cycle. Indeed, the differences in effective tax rates and cash tax rates between SOEs and non-SOEs is highest in the year of evaluations, further supporting the hypothesized link between political promotion incentives and SOE manager's tax decisions. Also noteworthy is that we find tax rates are *not* unrelated to promotion or turnover in non-SOEs, consistent with our inferences that the conflict of state ownership explains our results.

We also test whether our findings differ across local state government versus central state government control.⁶ We find that tax burdens exhibit stronger differences for local state government controlled SOEs. Local state governments have more intervention over SOEs and are less likely to be prosecuted for misconduct or misappropriation of state funds (e.g., Wang et al. 2008; Cheung et al. 2008). Therefore, the more pronounced effects for local SOEs reinforce the argument that the associations between local state ownership and tax burdens are caused by the state government intervention.

One possible alternative to our arguments is that the state might reward not only the SOE managers but also the SOEs for higher tax rates, so the minority shareholders' welfare might not

⁶ Local state governments are those provincial, city, or county governments, and central state government refers to the capital government in Beijing.

be harmed by SOEs' tax decisions favorable to the state. For example, the state might steer lucrative contracts towards the firm or grant other benefits not uniformly available to all firms, such as access to favorable financing or pricing of inputs or outputs. To explore whether SOEs' tax decisions are costly to minority shareholders, we examine the association between tax rates and long-window stock returns. We find that SOEs with higher tax rates experience lower stock returns. Thus, tunneling of resources through taxes by SOEs does not translate into benefits to minority shareholders, who are primarily rewarded from their investments through stock price appreciation.

Our final validity test examines whether certain corporate governance mechanisms moderate the observed tendency for SOEs to engage in less tax avoidance. We focus on the monitoring roles of CEO ownership, the degrees of regional marketization (an index measuring the development of regional market and institutional environment; see Fan et al. 2010), and whether the CEO is also the chair of the board of directors. We find that SOEs pay less tax when degrees of marketization are high or the CEO is not the chair of the board of directors. These findings are consistent with corporate governance mitigating the agency problem of forgone tax avoidance. However, management equity ownership does not have a significant monitoring effect on the relation between state ownership and tax rates. The implication is that the benefits SOE managers receive from the government for paying more taxes may be greater than the negative effects of higher tax rates on the value of equity holdings of the managers.

Our study is motivated by and contributes to three streams of literature. By providing evidence that SOEs make tax decisions favorable to the controlling state shareholder but costly to the minority shareholders, we contribute to the agency and tunneling literatures. Second, prior research calls for a better understanding of the relation between firms' agency conflicts in the

context of tax reporting, especially between controlling and minority shareholders (Scholes et al. 2005; Desai and Dharmapala 2004, 2006). Third, we contribute to the corporate tax literature, which provides few tests on the role of organizational factors, such as ownership structure, in determining a firm's tax reporting behavior. Shackelford and Shevlin (2001) call for more empirical analysis in this important area. Similarly, Hanlon and Heitzman 2010 also call for more studies on the determinants on tax avoidance and Dyreng et al. (2010) call for more research on how managers' careers are affected by their tax avoidance behavior.⁷

The rest of the study proceeds as follows. The next section discusses the institutional background of the Chinese market and reviews the relevant literature and provides formal hypotheses. Section 3 describes the data. We identify the research design and model specification and present our primary findings in Section 4. Section 5 provides alternative analyses, and section 6 concludes.

2. Prior Literature and Formal Hypotheses

2.1 Prior research

2.1.1 Brief Institutional Background on the Chinese SOE Market

Before 1979, the entire Chinese economy was controlled by the government. All enterprises were owned by the state and operated as production units of a single giant firm. No Chinese firms had the autonomy to make production or marketing decisions. Rather, the production plans and prices were set by the state, as were all profits. Managerial compensation was not tied to financial performance, but depended on a firm's size, the managers' seniority and

⁷ Our strongest results occur during years of CEO reviews and the positive association between tax rates and CEO promotions to political appointments.

whether the firms met orders from the state. Thus, managers had little incentive to improve firm performance, which had almost no effect on their personal wealth or status (Groves et al. 1995).

Economic development was initiated with a series of SOEs reforms in 1979. The first stage, spanning from 1979 to 1983, emphasized improved financial performance of SOEs, and the state allowed SOEs to retain a small portion (e.g., 3%) of profits. This reform granted some level of autonomy to SOE managers, and a labor market for managerial human capital began to emerge. The second stage spanned from 1983 to 1992, and China established a “Management Responsibility Contract System” (MRCS), which instituted contracts to give SOE managers more autonomy (Su 2005). For example, SOE managers were empowered to make certain decisions about production, investment and marketing. In the third stage of SOE reforms (from 1993 to current), the performance of the SOEs has been improved through corporatization and partial privatization. In the early 1990s, the state set up a “partial privatization” initiative, which included the sale of a minority ownership in SOEs to private investors at two major stock exchanges in China - Shanghai (in 1990) and Shenzhen (in 1991). By the end of 2009, these two exchanges represent more than 1700 publicly listed firms with a total market capital of RMB24 trillion. Common shares owned by the state were classified as non-tradable prior to 2005. However, in July 2005 the Chinese government announced an initiative to convert these non-tradable shares into tradable shares, which took several years to implement.

Even with the trajectory of these economic reforms, due to weak enforcement and other implementation issues, these reforms do not solve the risk of controlling shareholder expropriation of minority shareholders (Jiang et al. 2010). Further, the government retains the controlling interest in SOEs. Thus, even after the rollover of non-tradable shares to tradable in 2005, the state cannot actively trade its shares or benefit from stock price appreciation.

Consequently, the state has a strong incentive to derive immediate monetary benefits through other channels, including tunneling of resources from SOEs. The weak legal and financial reporting environment in China further provides the state with additional opportunities to extract benefits.⁸

2.1.2 Agency Problems, Controlling Shareholders and Tunneling

The early literature on agency theory focused on the U.S. market, where the central conflict is between managers and dispersed, atomistic shareholders. However, most firms in international markets are controlled by large block shareholders. In this case, the primary agency risk is the expropriation of minority shareholders by controlling shareholders (e.g., Jiang et al., 2010). Indeed, recent research in this area has increasingly focused on the risk of controlling shareholder expropriation of minority investors (i.e., ‘tunneling’ as discussed Johnson et al. 2000b or ‘self-dealing’ as discussed in Djankov et al. 2008).

Grossman and Hart (1988), Hart (1995) and Zingales (1994) are the earliest studies on the private benefits of control, which is defined as “benefits the current management or the acquirer obtain for themselves, but which the target security holders do not obtain.” For example, Zingales (1994) examines the Italian market and estimates the private benefits of control to be “60 percent of the value of nonvoting equity.” More recent studies reinforce that controlling ownership decreases firm value (e.g., Bae et al. 2002; Bertrand, Mehta, and Mullainathan 2002; Faccio et al. 2001; Lemmon and Lin 2003). Cheung et al. (2006) provide evidence on controlling shareholders’ tunneling through related party transactions, whereby controlling shareholders use related party transactions both to prop up earnings for public firms and to transfer resources from

⁸ For example, MacNeil (2002) notes that the state always enjoys priorities in Chinese courts. Similarly, Piotroski and Wong (2011) discuss the institutional links in China that explain the current lack of transparency in their securities markets.

public firms to related parties. Further, Jiang et al. (2010) provide evidence on controlling shareholders' tunneling in China through inter-corporate loans, which approximate tens of billions (RMB) during 1996 to 2006.

2.1.3 State Ownership and Managerial Behavior

Jensen and Meckling (1976) provide a theoretical framework for why managerial behavior depends on ownership structure. State owned enterprises are characterized as having worse financial performance than non-state owned firms, and privatization improves firm financial performance (e.g., Boubakri and Cosset 1998; D'Souza and Megginson 1999; Djankov and Murrell 2002; Sun and Tong 2003). A number of theories attribute the noted inefficiency of state ownership to managers' weak incentives to maximize profits (e.g., Shleifer and Vishny 1994; Boycko et al. 1996). For example, Shleifer and Vishny (1997) argue that bureaucrats are the ultimate controllers of SOEs, and bureaucrats' major objective is to achieve political objectives rather profit maximization. To address their own political goals, bureaucrats provide incentives for managers to achieve those political objectives (Cragg and Dyck 2003). However, empirical evidence on how bureaucrats use SOEs to address their own political goals is limited.

2.1.4 Tax Reporting in an Agency Context

Though tax planning is important for shareholders, studies on the determinants of tax avoidance are limited (Hanlon and Heitzman 2010). Shackelford and Shevlin (2001) call for a better understanding of the relations between ownership structure, agency conflict and tax reporting. As "a first step toward a better understanding of the impact of ownership structure on firms' tax reporting practices," Chen et al. (2010) is the only prior study of which we are aware that directly examines the impact of ownership structure on tax reporting. They find that family

firms engage in less aggressive tax reporting behavior than do non-family firms, arguing that “family owners are willingness to forgo tax benefits in order to avoid the potential penalty and reputation damage from a government audit, as well as the price discount arising from minority shareholders’ concern with family entrenchment.”

In addition to the effect of ownership structure, our study relies on the incentives of individual managers to affect firm-level tax avoidance. A recent and very interesting study by Dyreng et al. (2010) demonstrates that in addition to the effects of firm characteristics on tax avoidance, individual managers contribute their own preferences towards tax avoidance. They examine executive mobility across different firms and show a strong manager-specific effect in the explanation of effective tax rates. The combined but limited evidence of an ownership and individual manager effect on firm-level tax avoidance provides a key motivation for our predictions that SOEs in China exhibit lower tax avoidance and that individual managers associated with lower tax avoidance receive favorable promotions.

2.2 Formal Hypotheses

Traditionally, taxes represent a primary cost to a firm and its shareholders, making tax planning an important part of a manager’s job (e.g., Chen et al. 2010). In SOEs, however, taxes represent a dividend to the controlling shareholder - the state - but a cost to minority shareholders. Thus, the controlling shareholder benefits from higher tax effective rates. Further, as Shleifer and Vishny (1997) argue, the bureaucrats that are the ultimate controlling shareholders are primarily concerned with political objectives rather than profit maximization. Corporate tax collections are the major source of monetary resources for the state, making it a primary political objective. Together, these features of the Chinese SOE market and the tunneling hypothesis suggest that

SOE managers make tax decisions favorable to the state. We measure the impact of tax decisions made by SOE managers using effective tax rates and cash payments for taxes. Our first hypothesis is as follows (in alternative form):

H₁: SOEs exhibit higher effective tax rates and cash tax payments than do non-SOEs.

Prior literature also argues that bureaucrats provide incentives for managers to achieve political objectives (Cragg and Dyck 2003). One way in which managers' incentives can be examined is by associating tax rates to promotions (or demotion). SOE managers maintain the clearest decision rights with respect to operations; the state maintains ultimate control over the personnel charged with managing SOEs. Li (1998) observes that most SOE managers have bureaucratic titles. For example, managers of big state-hold energy firms even have the same level bureaucratic titles with the vice secretary of energy in China. SOE managers typically receive evaluations for political promotions on a three-year cycle, and prior research suggests that such political promotions are effective incentives for SOE managers (Li and Zhou 2005; Cao et al. 2010). Because such evaluations are done by bureaucrats, SOE managers will be inclined to focus on objectives that best serve those of the bureaucrats. In these evaluations, SOE managers are assigned to similar or even lower level political positions if bureaucrats are unsatisfied with the performance of the SOE managers.

These features of the SOE labor market and the evaluation system suggest that SOE managers respond to the political objectives of bureaucrats, which must include the collection of higher taxes by the state. We adopt an outcome-based approach to examining this link by examining whether tax rates are associated with political promotions. The following is our second hypothesis (stated in alternative form):

H₂: The probability that an SOE manager is promoted to a higher level position is positively associated to the SOE's tax rates.

3. Sample, Tax Rate Measures, and Descriptive Statistics

3.1 Sample

We first obtain financial data for all the listed Chinese firms (excluding financial institutions) during 2003 to 2007 ($n=6,883$).⁹ Data are taken from China Stock Market and Accounting Research (*CSMAR*) database (for financial accounting and ownership information), Center for Chinese Economic Research (*CCER*) database (for industry classification and corporate governance information), and *WIND* database (for information about income taxes).¹⁰ We then manually search annual financial reports and other reports for all listed companies in China from 2003 to 2008 and collect information on the CEOs, including age, CEO appointment date, departure date, and information about political appointments.¹¹ Following prior studies (e.g., Dyreng et al. 2010), we remove observations with pre-tax income equal to or less than 0 ($n=921$). We further delete 396 observations without information about market value of equity, lagged net income and ownership. Finally, our sample for test of H_1 consists of 5,566 observations (1,422 unique firms). For the test of promotions (test of H_2), we initially have a sample of SOEs ($n=3,901$). We remove 42 observations with missing CEO information, 778 observations with CEO tenure shorter than one year,¹² 180 observations for which CEOs leave the positions

⁹ The sample period of our hand collected data ends at 2007, because there were a series of tax reforms in China following 2007.

¹⁰ These three databases are widely used in prior literature on the Chinese market (e.g., Wang et al. 2008, Jiang et al. 2010 and Li and Zhou 2005).

¹¹ In addition to corporate financial reports, we manually collect information from media announcements about SOE promotions and demotions, and we also use other search engines and databases (i.e., Google; Baidu and Sina Finance) to identify other manager characteristics.

¹² For these observations, it is not clear whether the tax decisions are made by the prior managers or the new ones.

because of health problems, legal problems, retirement and other unambiguous reasons,¹³ and 104 observations missing information about CEO promotion or CEO age.¹⁴ The final sample for the test of H_2 is 2,797 observations.

Table 1 reports the sample composition. The 5,566 firm-years reflect 1,422 unique firms. We identify a firm as a SOE if its ultimate controller is the state (Faccio and Lang, 2002). Over 70% of the firms that comprise our sample are SOEs (Panel A). Among the SOEs, the approximately half are controlled by local state governments as opposed to the central state government. Panel B of Table 1 tabulates industry distribution. Consistent with prior literature (e.g., Wang et al. 2008), there are more SOEs than non-SOEs in most industries except apparel and furniture. Panel C shows the results of managers' political promotion evaluation. About 11% of departing SOE managers are promoted to higher level positions,¹⁵ and 54% of the managers are assigned to similar or lower level internal positions.

3.2 Tax Rate Measures

Based on prior literature, we use two measures of income tax rates: the current effective tax rate and the cash effective tax rate.¹⁶ During our sample period (through 2007), Chinese accounting standards permitted companies to use either the tax payment method or tax provision

¹³ In some cases, CEOs drop one of the two joint positions they previously hold in two different SOEs. We cannot clearly tell whether these are promotions, so we delete these observations.

¹⁴ A small number of cases we delete are those where managers jointly held several positions before leaving the low level positions. We cannot clearly tell whether these cases are promotions or not. The results are not sensitive to including these observations.

¹⁵ We categorize promotions into three groups: Promoted to positions in the government; Promoted to Manager in the parent firm; Promoted to Vice Manager in the parent firm.

¹⁶ There are alternative measures of tax burden. However, the validity of these other measures is not clear in the Chinese market. For example, the Chinese firms have significant earnings manipulation behavior, and thus the book-tax difference measures may mainly reflect earnings manipulation, clouding our ability to compare the group of SOE and the group of non-SOEs along our dimension of interest. (See Hanlon and Heitzman, 2011 for details)

method to account for income taxes.¹⁷ Under the tax payment method, reported income tax expense only includes current tax expense (deferred tax expense is not recorded); under the tax provision method, reported income tax expense includes both current and deferred tax expense. Unfortunately, almost all companies use the tax payment method, so we are unable to capture deferred tax .

First, we employ the current effective tax rate (*ETR*) to measure tax avoidance:

$$ETR_{i,t} = Total\ Current\ Income\ Tax\ Expense_{i,t} / Pretax\ Income_{i,t}$$

The second measure we employ is the cash effective tax rate (*CETR*_{*i,t*}):

$$CETR_{i,t} = Cash\ Income\ Taxes\ Paid_{i,t} / Pretax\ Income_{i,t}$$

We winsorize both measures at 1 to combat any small denominator problems. Lower (higher) *ETR* or *CETR* is associated with more (less) tax avoidance.¹⁸

3.3 Descriptive Statistics

Our analyses start with a univariate analyses on the tax rates across the timeline. We categorize the sample into two groups: SOEs and non-SOEs. Then, we calculate the mean value of *ETR* and *CETR* in each year, separately, for SOEs and non-SOEs. As shown in Figure 1, for both *ETR* and *CETR*, SOE have greater value across all the sample years than non-SOEs, though there are variations in tax rates across years for both SOEs and non-SOEs. These descriptive results are consistent with the first hypotheses that SOEs have greater tax rates than do non-SOEs.

Table 2 presents univariate statistics of the two tax expense measures for the whole sample period and the correlation matrix. Panel A reports the means and medians of tax expense

¹⁷ After 2007, companies are prohibited from using the tax payment method.

¹⁸ Due to non-disclosure of cash taxes paid, we calculate cash income taxes paid as current tax expenses minus year-ending taxes expenses payable plus year-beginning taxes expenses payable.

measures, separately for SOEs and non-SOEs. The statistics indicate that SOEs exhibit significantly higher tax rates than do non-SOEs: for example, the median *CETR* for SOEs is 0.182, greater than the median *CETR* for non-SOEs (0.168), and the difference in these two median values is significantly different from zero (Wilcoxon test W -statistic=3.451). Panel B reports the means and medians of tax expense measures, separately for central SOEs and Local SOEs. The statistics indicate that Local SOEs exhibit significantly higher tax rates than do central SOEs. The differences in means and medians are also significantly different from zero in all cases. For instant, if SOEs are defined based on the largest shareholder, the mean *ETR* for Central SOEs is 0.224, which is lower than the mean *ETR* for Local SOEs (0.259), and the difference in these two mean values is significantly different from zero (T -statistic= 4.867). Panel C shows the probability of promotion for SOE managers across quintiles of tax rates. Based on the statistics, as tax rates increase, the probability generally gets bigger.

Table 3 shows descriptive firm characteristics and correlations for the other variables. Based on the statistics in Panel A, SOEs are more profitable, larger, less leveraged and more capital intensive than non-SOEs,¹⁹ but SOEs have lower Tobin's Q . These statistics are inconsistent with SOEs being *less* efficient than non-SOEs (e.g., Wang et al. 2008). Also, managers of SOEs are generally older and have longer tenure. For example, SOE managers average 47.2 years old versus 44.7 for non-SOE managers. Panel B reports the correlations between different variables. The effective tax rate and cash tax rate are positively correlated with each other (0.737). Among other variables, *SIZE* and *LARGEOWN* have the largest correlation

¹⁹ As shown in the table, most variables have significant different values in means and medians.

(0.235). However, this is not large enough to suggest significant problems with multicollinearity.²⁰

4. Multivariate Tests and Primary Empirical Results

4.1 Multivariate Tests

We first investigate the effect of state ownership on firms' taxes. The first hypothesis H_1 predicts that tax rates of SOEs are higher than those of non-SOEs. We set up a dummy variable, *SOE*, for state owned enterprises. To test the first hypothesis, we estimate the following cross-sectional regression. In this model, there are two alternative dependent variables: *ETR* or *CETR*. If SOEs have higher tax rates than do non-SOEs, we expect a positive coefficient on the *SOE* variable, α_1 .

$$ETR(CETR)_{i,t} = \alpha_0 + \alpha_1 SOE_{i,t} + \alpha_2 ROA_{i,t} + \alpha_3 SIZE_{i,t} + \alpha_4 LEV_{i,t} + \alpha_5 TQ_{i,t} + \alpha_6 PPE_{i,t} + \alpha_7 LagLOSS_{i,t} + \alpha_8 LnGDP_{i,t} + FixedEffects + \varepsilon_{i,t} \quad (1)$$

Where:

- ETR* = Current income tax expense / pretax income, if the value is greater than 1 (smaller than 0) then it is set to 1 (0).
- CETR* = Cash income tax expenses paid / pretax income, if the value is greater than 1 (smaller than 0) then it is set to 1 (0).
- SOE* = State Owned Enterprises. We identify a firm as a SOE if its ultimate controller is the state (see, Faccio and Lang, 2002).
- ROA* = Operating income/ total assets
- LEV* = Total liabilities/ total assets
- SIZE* = Natural logarithm of the total assets
- TQ* = Tobin's Q, (market value of equity +book value of debt)/ book value of total assets
- PPE* = Net value of PPE/ total assets
- LagLOSS* = 1, if the firm reports a loss in the previous year; 0 otherwise.
- LnGDP* = Natural logarithm of per capita GDP of the region where the firm is located

²⁰ We test the VIFs for all the regressions in our study. No VIFs are greater than 10, further relieving concerns about multicollinearity.

We control for factors that may affect tax avoidance as documented in the literature (e.g., Manzon and Plesko, 2003; Mills, 1998; Rego, 2003; Dyreng et al., 2008; Frank et al., 2006). Several control variables (*ROA*, *LEV*, *LagLOSS* and *SIZE*) capture tax planning incentives and opportunities. We include *ROA* to capture profitability, since profitable firms have more tax expenses and therefore are more likely to take tax-advantaged positions that reduce tax obligation.²¹ We also include leverage (*LEV*), because firms with higher leverage already enjoy the tax shield benefit of debt financing, which may be associated with a differential tendency to engage in incremental tax avoidance. We use lagged loss (*LagLOSS*) to capture whether firms can use (have already used) the tax benefits associated with the loss in the previous year.²² We also control for several other firm-specific variables. Because larger firms enjoy economies of scale in tax avoidance behavior, we control for firm size (*SIZE*), measured as the natural log of the total assets.²³ We also control for growth by including Tobin's Q (*TQ*), as growing firms may make more investments in tax-favored assets and thus have more opportunities to shift earnings. Because of different treatments of depreciation expense for tax and financial reporting purposes, firms' tax expenses measures are affected by their capital intensiveness. Thus, we include *PPE* to control for capital intensiveness. We further include the natural log of regional per capita GDP to control for the differences in the economic performances across regions where the firms are located.²⁴ In addition, we also include industry dummies and year dummies to control for variations in tax burdens across years and industries.

We also investigate whether SOEs' tax decisions affect the probability that managers get promoted to higher level positions. We use all the SOE observations to estimate the following

²¹ We also use ROE or profit margin as alternative measures. The results are not sensitive.

²² In the Chinese market, firms do not provide data on carryover losses.

²³ The results are similar if we use the log of market value as a measure of *SIZE*.

²⁴ We also use per capita GNP as an alternative measure, and no results are changed.

two Probit Models. In these models, there are four sets of alternative independent variables: *ETR*; *CETR*; *Rank_ETR*; *Rank_CETR*. *ETR* and *CETR* are the raw values of tax rates. *Rank_ETR* and *Rank_CETR* are the decile rank of industry-year median adjusted *ETR* and *CETR*. Industry-year median *ETRs* can be used as benchmarks for evaluating SOE's tax burden, and thus *Rank_ETR* and *Rank_CETR* can reflect the competition for promotions among firms in the same industry. The hypothesis H₂ predicts that the probability is positively related to the SOE's tax burden.

$$\text{Promotion}_{i,t} = \beta_0 + \beta_1 \text{ETR}(\text{CETR})_{i,t} + \beta_2 \text{ROA}_{i,t} + \beta_3 \text{OTHTAX}_{i,t} + \beta_4 \text{SIZE}_{i,t} + \beta_5 \text{LEV}_{i,t} + \beta_6 \text{AGE}_{i,t} + \beta_7 \text{TENURE}_{i,t} + \beta_8 \text{LARGEOWN}_{i,t} + \beta_9 \text{LnGDP}_{i,t} + \text{FixedEffects} + \varepsilon_{i,t} \quad (2)$$

$$\text{Promotion}_{i,t} = \beta_0 + \beta_1 \text{RANK_ETR}(\text{RANK_CETR})_{i,t} + \beta_2 \text{ROA}_{i,t} + \beta_3 \text{OTHTAX}_{i,t} + \beta_4 \text{SIZE}_{i,t} + \beta_5 \text{LEV}_{i,t} + \beta_6 \text{AGE}_{i,t} + \beta_7 \text{TENURE}_{i,t} + \beta_8 \text{LARGEOWN}_{i,t} + \beta_9 \text{LnGDP}_{i,t} + \text{FixedEffects} + \varepsilon_{i,t} \quad (3)$$

Where:

<i>PROMOTION</i>	= 1, if the manager gets promoted to a higher level position in the next year; 0 otherwise;
<i>ETR</i>	= Current income tax expense / pretax income, if the value is greater than 1 (smaller than 0) then it is set to 1 (0).
<i>CETR</i>	= Cash income tax expenses paid / pretax income, if the value is greater than 1 (smaller than 0) then it is set to 1 (0).
<i>Rank_ETR</i>	= The decile rank of industry-year median adjusted <i>ETR</i> . Industry-year median adjusted <i>ETR</i> is equal to a firm's <i>ETR</i> minus the median <i>ETR</i> of the same industry year.
<i>Rank_CETR</i>	= The decile rank of industry-year median adjusted <i>CETR</i> . Industry-year median adjusted <i>ETR</i> is equal to a firm's <i>CETR</i> minus the median <i>CETR</i> of the same industry year.
<i>ROA</i>	= Operating income/ total assets
<i>OTHTAX</i>	= Other taxes or fees paid to the government /revenue
<i>SIZE</i>	= Natural logarithm of the total assets
<i>LEV</i>	= Total liabilities/ total assets
<i>AGE</i>	= CEO age
<i>TENURE</i>	= The length of CEO tenure
<i>LARGEOWN</i>	= The proportion of ownership of the largest shareholder
<i>LnGDP</i>	= Natural logarithm of per capita GDP of the province where the firm is located

First, we control for several determinants of SOE manager career turnout in prior research (See Li and Zhou 2005). We control for *ROA*, *SIZE* and *LEV*, which reflects the difference in firm financial conditions. We expect managers from firms with higher *ROA*, larger *SIZE* to be more likely to get promoted, but we do not have clear predictions for *LEV*. Second, we control for tenure and age, because a manager is more likely to get promoted after staying at a firm for a relatively long time or when they are younger. We also include the log of provincial per capita GDP to control for the differences in the economic performances across regions where the SOEs are located. We also control for the proportion of ownership of the largest shareholder (*LARGEOWN*), because the state might have more influence over the firm when the governments own more shares of a firm. In addition, we use *OTHTAX* to control for any other taxes or fees the firm pays to the government except the income taxes.^{25,26} Finally, we control for industry and year fixed effects.²⁷

4.2. Primary Empirical Results

4.2.1 State Ownership and Tax Avoidance

H_1 predicts that tax burdens of SOEs are higher than that of non-SOEs. To test the first hypothesis, we estimate model (1). *SOE* is a dummy variable for state owned enterprises, identified as firms . We identify a firm as a SOE if the shares held by the largest shareholder are state-owned shares and exceed 20%. If SOEs have higher tax burdens than do non-SOEs, we expect a positive coefficient on the *SOE* variable. We report the estimation results in Table 4,

²⁵ *OTHTAX* mainly refers to value added taxes. Firms are not likely to avoid these taxes, because of prohibitively high legal costs. Moreover, the highest penalty to value added tax evasion is actually death.

²⁶ We also scale *OTHTAX* by total assets, with no change in the results. Reported results use revenue as our scalar because other fees and taxes are usually a function of revenue.

²⁷ For model (3), we only control for year fixed effects, but the results are generally similar if we control for industry fixed effects. But, we do not include industry dummies in the models, because in model (3), the *Rank_ETR* and *Rank_CETR* are already adjusted by industry.

where t-statistics are based on standard errors clustered by firm. In Table 4 Column 1, we use *ETR* as the dependent variable, and in Column 2, we use *CETR* as the dependent variable. In Table 4, for both measures of tax rates, we find that the coefficients on the SOE variable are significant positive. For example, the in the first column, the coefficient on SOE is 0.018 (t-statistic=2.20). This is consistent with the expectation of the tunneling hypothesis, suggesting that SOEs have higher tax burdens than do non-SOEs. The coefficient on *SOE* indicates the differences in both effective tax rates and cash tax rates between SOEs and non-SOEs. Therefore, based on the estimations, the differences in both effective tax rates and cash tax rates between SOEs and non-SOEs are, on average, about 2%. In addition, coefficients on the control variables are generally consistent with expectations.

The results in Table 4 may be contaminated if differential tax incentives available to firms are systematically correlated with our demarcation of SOEs vs. non-SOEs. Indeed several tax incentives are available, which might fall disproportionately on firms we categorize as non-SOEs, generating misleading results due to correlated omitted variables. First, firms operating in specially designated economic and technology development zones are occasionally granted reductions in income taxes. Second, qualified enterprises with foreign direct investment enjoy reduced rates of 0%-15% in the immediate years following foreign direct investments. Finally, qualified start-up firms can qualify for reduced rates and special deductions for start-up expenses. The three panels in Table 5 replicate the results in Table 4 after excluding observations that are likely to realize these reductions in tax rates. We only report the coefficient on *SOE* for brevity, and all results are robust to each subsample elimination.

4.2.2 SOE Tax Avoidance and Managerial Incentive

Next, we investigate whether SOEs' tax decisions affect the probability that managers get promoted to higher level positions. The hypothesis H_2 predicts that the probability is positively related to the SOE's tax burden. To test H_2 , we first examine a series of univariate analyses (untabulated), which show the frequency of promotion across all quintiles of tax rates for SOEs. We find that higher cash tax rates and current tax rates are generally associated with higher frequency of promotion, consistent with expectations.²⁸

To formally test for the hypothesized association between tax avoidance and promotion, we use all SOE observations to estimate models (2) and (3), and results appear in Table 6. In columns 1 and 3, we use *ETR* and *CETR* as the tax burden measures. In columns 3 and 4, the tax measures are *Rank_ETR* and *Rank_CETR*, which are the decile ranks of industry-year median adjusted *ETR* or *CETR*, respectively, relative to industry peers. We find that the coefficients on the *ETR* or *CETR* variable are significantly in three of four specifications. The results appear stronger for *ETR* than for *CETR*.

In the third column, the coefficient on *CETR* is insignificant. There are three potential interpretations. First, this insignificant coefficient could indicate that the state governments only consider tax expense but not timely cash tax payments in evaluations of SOE managers, but we deem this unlikely. Second, this insignificant coefficient could be due to firms usually paying a large portion of their current taxes in the following year, which occurs after the evaluation for promotions. Thus, the timing of the cash tax payments could be mismatched by that of political promotion. Third, the association between *CETR* and promotion may be non-linear. We explore

²⁸ On average, the highest two quartiles have higher probability of promotion than the first two quartiles.

this possibility by using spline analyses, and find a significant positive relation between *CETR* and promotion for all the firms with *CETR* in the bottom nine deciles (coefficient= 1.030; Z-statistics=2.64) but not those with *CETR* in the top decile. We conclude that this nonlinear relation likely contributes to the insignificant coefficient in column 3 of Table 6.

5. Extensions

5.1 Term of Evaluation

SOE managers are evaluated every three years for promotion. Therefore, the difference between the third year of a SOE manager's term and the first two years is the evaluation for promotion. Since managers tend to be myopic (e.g., Bhojraj and Libby 2005), they may be more concerned about evaluation in the third year than in the first two years. Therefore, to further verify the argument that manager's tax decisions are affected by the promotion system, we test whether SOE managers make more tax decisions favorable to the state in the third year than in the first two years. If manager's tax decisions are affected by the promotion system, we expect that SOE managers to make more tax decisions favorable to the state in the third year than in the first two years. To test this prediction, we split the sample based on whether the manager is in the third of the three-year term. We estimate model (1) in the two subsamples, and expect that the coefficients on the *SOE* variable to be greater in the third year of SOE managers' terms than in the other two years.

In Table 7, we find that the coefficient on *ETR* (or *CETR*) is significantly positive in the third year, but not in the first two years.²⁹ For example, when SOEs are defined based on the largest shareholder, and *ETR* is used as the dependent variable, the coefficients on *SOE* are 0.013

²⁹ For the tests in Table 7, we have to delete 135 observations due to an inability to identify in which year of the three year evaluation cycle the observation falls.

(t-statistic=1.43) for the first two years but 0.029 (t-statistic=2.35) for the third year. However, a caveat is that a test for differences in coefficients for the third year relative to the other two is insignificant at conventional levels. These findings are consistent with the expectation that managers make tax decisions most favorable to the state in the year in which they are assessed for political promotion.

5.2 Local versus Central State Ownership

We also consider whether the SOEs are controlled by the central government or the local state governments, such as provincial, city, or county governments. Local governments have stronger influence over SOEs than do central governments (Wang et al. 2008), and local government officials are less likely to be prosecuted for misconduct and misappropriation of state funds (Cheung et al. 2008). Therefore, if the effect of state ownership on tax rates and the effect of tax rates on promotions is caused by state intervention and misconduct, we expect that local governments engage in more tunneling, and that local governments are more likely to use SOEs to fulfill political goals. Based on these analyses, we predict that the difference in tax rates between SOEs and non-SOEs is greater when the SOEs are controlled by local government rather than the central government.

To test the prediction, we construct two indicator variables: *CENTRAL SOE* and *LOCAL SOE*. A firm is categorized as a *CENTRAL SOE* if it is controlled by the central government (i.e., Beijing); a firm is categorized as a *LOCAL SOE* if it is controlled by a local government. We estimate model (1) including these two indicator variables. We report the estimation results in Table 8. For both columns in the table, we find that the coefficients on *LOCAL SOE* are significant positive, but the coefficients on *CENTRAL SOE* are insignificant. For example, in the

first column, the coefficient on *LOCAL SOE* is 0.023 (t-statistic=2.66), but the coefficient on the *CENTRAL SOE* is 0.007 (t-statistic= 0.66). Recall that this sample is similar to that in Table 4, and includes non-SOEs. Thus, the coefficient on *LOCAL SOE* indicates the differences in both effective tax rates and cash tax rates between Local SOEs and non-SOEs. Differences in both *ETR* and *CETR* across Local SOEs and non-SOEs are, on average, about 2.2%.

In untabulated tests, we also examine whether the positive association between tax rates and the probability that a manager is promoted is different when the SOEs are controlled by local government rather than the central government. We find the effects of *ETR* and *Rank_ETR* on promotion are significant and similar for both Central and Local SOEs. However, the effects of *CETR* and *Rank_CETR* on promotion are more positive for Local SOEs. For example, the coefficient on *Rank_CETR* is 0.046 (Z-statistics=2.21). In our sample, it is not uncommon for local SOE managers to be promoted to positions in Central SOEs; thus, the promotion evaluations for many Local SOE managers are actually under the control of the Central government. Therefore, we caution that, for the analyses on the relation between taxes and promotion, it may be inappropriate to partition the sample based on whether the SOE is a Central SOE or a Local SOE.

5.3 Tax and Stock Returns for SOEs

An alternative to our argument is that SOEs (and the minority shareholders) realize other benefits that offset the higher tax payments we document. As discussed above, stock returns are not of great importance to the state, but, stock price appreciation is the primary vehicle for minority shareholders to profit. Therefore, to exclude the alternative and examine whether SOEs' tax decisions favorable to the state are costly to minority shareholders, we test the effect of tax

rates on stock returns for SOE. In China, listed firms are required to issue financial reports during December 31st to April 15th. To give the market enough time to react to the financial reports, we calculate cumulative stock return from the beginning of May to the next April. Then, we compute excess cumulative stock returns by taking the difference between the cumulative raw return and the cumulative market return during the same period. Finally, using the sample of SOEs, we regress excess cumulative stock returns on tax rates and control variables (*Lag_SIZE*, *Lag_MB*, *Lag_Lev*, and *ROA*). Table 9 shows these results, where we find significant negative coefficients on both proxies for tax rates. For example, in the first column, the coefficient on ETR is -0.199 (t-statistic = -3.94). This suggests SOEs' tax decisions favorable to the state are costly to minority shareholders, further supporting our primary conclusions.

5.4 The Role of Marketization

We also consider how the degrees of marketization across regions affect SOEs' tax decisions. We adopt data on the degrees of marketization from Fan et al. (2010), and marketization (*MARINDEX*) is an index measuring the development of the regional market and institutions. The state can have more intervention over the SOEs' tax decisions and other operations when the SOE is located in a region with a lower degree of marketization. Therefore, we predict that the difference in tax rate between SOEs and non-SOEs is greater when the degrees of marketization are lower. To test this prediction, we include an interaction variable of *SOE* and *MARINDEX*, and predict negative coefficients. We report the results in Panel A of Table 10. For both columns, we find negative coefficients on this interaction term between *SOE* and *MARINDEX*, suggesting that the SOE agency problem is mitigated by higher degrees of marketization.

5.5 The Role of Management Ownership

Next we consider how management ownership (*MGTOWN*) affects SOEs' tax decisions, because agency problems are expected to be smaller when management ownership is greater. We thus predict a negative association between the difference in tax rate for SOEs and non-SOEs and management ownership. We include an interaction variable of *SOE* and *MGTOWN*, and predict a negative coefficient on this interaction variable. Results appear in Panel B of Table 10. For both tax rate measures, we find insignificant coefficients on the interaction of *SOE* and *MGTOWN*. This lack of a result is actually consistent with benefits accruing to the SOE manager for paying higher taxes exceeding the negative wealth effects of the manager's equity holdings. However, this is tentative at best given the necessary caveats from a non-result.

5.6 Is CEO also the Chair of the Board?

We consider whether SOE tax avoidance is different when the CEO is also the chair of the boards of directors. The board of directors is expected to be less independent and less effective when CEOs are also the chairs of the board of directors. Therefore, we predict that the difference in tax rate between SOEs and non-SOEs is greater when the SOE CEO also chairs the board of directors. *CEOCHAIR* is an indicator variable coded as 1 if the firm's CEO is also chair of the board of directors and 0 otherwise. We predict a positive coefficient on an interaction between *SOE* and *CEOCHAIR*. Results appear in Panel C of Table 10. For both columns, the coefficients on the interaction term are positive and significant. Consistent with our prediction, the results suggest that SOE agency problems with respect to tax avoidance are more severe when the CEO also serves as chair of the board of directors.

5.7 Other Additional Tests

The results above find a positive relation between taxes and political promotions for SOE managers, suggesting that the state provides political promotions as incentives for managers to pay more taxes. Figure 2 plots the probability of promotion for *non*-SOEs across quartiles of tax rates, because one concern is that our promotion tests, which are restricted to SOE firms only, are subject to an overall trend across China and the associations we find are possibly spurious. As shown in Figure 2, however, tax rates appear unassociated with the probability of promotion for non-SOE CEOs. This mitigates concerns over a spurious correlation in our primary promotion tests. We also estimate model (2) for the sample of non-SOEs, and also find insignificant results. Based on these analyses, we conclude that the incentives for managers to avoid tax avoidance dominates in SOEs.

We also employ several other tests to ensure the robustness of our tests. First, we use an alternative definition of SOE: a firm is identified as a SOE if the shares held by the largest shareholder are state-owned shares and exceed 20%. Second, we use turnover instead of promotion to repeat our analyses. Third, to further relieve the concern that our results are driven by firms with extreme values, we truncate the sample at the top and bottom 3% levels of the control variables. None of our findings are sensitive to these tests, suggesting that our findings are robust.

6. Conclusions

Tax avoidance is a phenomenon defined as downward management of taxable income through tax planning activities. We investigate whether state owned enterprises (SOEs) are more or less likely to engage in tax avoidance than other non-state owned firms and whether SOE

managers' tax avoidance is associated with differential rates of promotion. Collectively, the findings suggest that the SOEs make tax decisions favorable to the controlling shareholder, the state, but costly to the minority shareholders, and the state utilizes the SOE managers' career concerns to incentivize these decisions.

Using a sample of listed Chinese firms, we find that SOEs have significantly higher effective tax rates and cash tax rates than do non-SOEs. We also find a negative association between tax rates and stock returns, but a positive association between tax rates and SOE manager promotions. SOE managers exhibit a marked increase in tax rates during years they are being evaluated for political promotions. The effects of SOE ownership on reduced tax avoidance are greatest for SOEs controlled by local state governments rather than the central state government. In addition, we find some evidence that various corporate governance mechanisms seem to mitigate the negative relation between SOEs and tax avoidance. These results are robust to numerous alternative tests.

References

- Allen, Franklin, Jun Qian, and Meijun Qian, 2005, Law, Finance, and Economic Growth in China. *Journal of Financial Economics* 77, 57-116
- Atanasov, Vladimir, 2005, How much value can blockholders tunnel? Evidence from the Bulgarian mass privatization auctions. *Journal of Financial Economics* 76, 191-234.
- Bae, Kee-Hong, Jun-Koo Kang, and Jin-Mo Kim, 2002, Tunneling or Value Added? Evidence from Mergers by Korean Business Groups. *Journal of Finance* 57, 2695-2740.
- Baek, Jae-Seung, Jun-Koo Kang, and Inmoo Lee, 2006, Business Groups and Tunneling: Evidence from Private Securities Offerings by Korean Chaebols. *Journal of Finance* 61, 2415-2449.
- Bai, Chong-En, Qiao Liu, Joe Lu, Frank Song, and Junxi Zhang, 2004, Corporate Governance and Market Valuation in China. *Journal of Comparative Economics* 32, 599-616.
- Berkman, Henk, Robert Cole, and Jiang Hu, 2005, Agency Conflicts, Expropriation and Firm Value: Evidence from Securities-Market Regulation in China. Working paper, Massey University Albany.
- Berle, Adolf, and Gardiner Means, 1932, *The Modern Corporation and Private Property*, New York: Macmillan.
- Bertrand, Marianne, Paras Mehta, and Sendhil Mullainathan, 2002, Ferreting Out Tunneling: An Application to Indian Business Groups. *Quarterly Journal of Economics* 117(1), 121-148.
- Brickley, James, James Linck, and Jeffrey Coles, 1999, What Happens To CEOs After They Retire? New Evidence on Career Concerns, Horizon Problems, and CEO Incentives, *Journal of Financial Economics* 52, 341-377,
- Boubakri, Narjess, and Jean-Claude Cosset, 1998, The financial and operating performance of newly privatized firms: evidence from developing countries, *Journal of Finance* 53, 1081-1110
- Boycko, Maxim, Andrei Shleifer, and Robert Vishny, 1996, A theory of privatization, *Economic Journal* 106, 309-319.
- Bhojraj, Sanjeev, and Robert Libby, 2005, Capital Market Pressure, Disclosure Frequency-Induced Earnings/ Cash Flow Conflict and Managerial Myopia *Accounting Review* 80(1), 1-20.
- Cao, Jerry, Michael Lemmon, Xiaofei Pan, and Gary Tian, 2010, Political Promotion, CEO Compensation, and Their Effect on Firm Performance, Working Paper, Singapore Management University.
- Chen, Gongmeng, Michael Firth, and Liping Xu, 2009, Does the type of ownership control matter? Evidence from China's listed companies. *Journal of Banking and Finance* 33(1), 171-181.
- Chen, Shuping, Xia Chen, Qiang Cheng, and Terry Shevlin, 2010, Are Family Firms More Tax Aggressive Than Non-Family Firms? *Journal of Financial Economics* 95(1), 41-61.
- Chen, Xiao, Chi-Wen Jevons Lee, and Jing Li, 2003, Chinese Tango: Government Assisted Earnings Management . Working paper, Tulane University.
- Cheung, Yan-Leung, Lihua Jing, Raghavendra Rau, and Aris Stoutaitis, 2006, Tunneling, Propping, and Expropriation: Evidence from Connected Party Transactions in Hong Kong . *Journal of Financial Economics* 82, 343-386.

- Cheung, Yan-Leung, P. Raghavendra Rau, and Aris Stouraitis, 2008, The Helping Hand, the Lazy Hand, or the Grabbing Hand? Central vs. Local Government Shareholders in Publicly Listed Firms in China. Working paper, University of Hong Kong.
- Claessens, Stijn, Simeon Djankov, and Larry Lang, 2000, The separation of ownership and control in East Asian Corporations . *Journal of Financial Economics* 58, 81-112.
- Claessens, Stijn, Simeon Djankov, Joseph Fan, and Larry Lang, 2002, Disentangling the Incentive and Entrenchment Effects of Large Shareholders. *Journal of Finance* 57, 2741-2771.
- Cragg, Michael, and Alexander Dyck, 2003, Privatization and management incentives: Evidence from the United Kingdom, *Journal of Law, Economics and Organization* 19, 176-218.
- Desai, Mihir, and Dhammika Dharmapala, 2004. Earnings management and corporate tax shelters. Harvard University, working paper.
- Desai, Mihir, and Dhammika Dharmapala, 2006. Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics* 79, 145-179.
- Djankov, Simeon, and Peter Murrell, 2002. Enterprise restructuring in transition: a quantitative survey, *Journal of Economic Literature* 40, 739-792.
- Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2008. The law and economics of self-dealing. *Journal of Financial Economics* 88, 430-465.
- D'Souza, Juliet and William Megginson, 1999. The financial and operating performance of privatized firms during the 1990s, *Journal of Finance* 54, 1397-1438
- Dyck, Alexander, and Luigi Zingales, 2004. Private Benefits of Control: An International Comparison . *Journal of Finance* 59, 537-600.
- Dyreng, Scott, Michelle Hanlon, and Edward Maydew, 2010. The Effects of Executives on Corporate Tax Avoidance. *The Accounting Review*. 85, 1163-1190
- Dyreng, Scott, Michelle Hanlon, and Edward Maydew, 2008, Long-run corporate tax avoidance. *The Accounting Review* 83, 61-82.
- Eun, Cheol, and Wei Huang, 2007, Asset Pricing in China's domestic stock markets: Is there a logic? *Pacific-Basin Finance Journal* 15, 452-480.
- Faccio, Mara, and Larry Lang, 2002, The ultimate ownership of Western European corporations . *Journal of Financial Economics* 65, 365-395.
- Faccio, Mara, Larry Lang, and Leslie Young. 2001, Dividends and Expropriation. *American Economic Review*, 91, 54-78.
- Fama, Eugene, 1980, Agency Problems and the Theory of the Firm. *Journal of Political Economy*, 88, 288-307.
- Fama, Eugene, and James MacBeth, 1973, Risk, Return, and Equilibrium: Empirical Tests. *Journal of Political Economy* 81, 607-636.
- Fama, Eugene, and Kenneth French, 1993, Common risk factors in the returns of stocks and bonds, *Journal of Financial Economics* 33, 3-56.
- Fan, G., X. Wang, and H. Zhu, 2010. NERI index of Marketization of China's Provinces 2009 Report. The Economic Science Press (in Chinese).
- Fan, Joseph, T.J. Wong, and Tianyu Zhang, 2007, Politically Connected CEOs, Corporate Governance, and Post-IPO Performance of China's Newly Partially Privatized Firms . *Journal of Financial Economics* 84, 330-357.
- Fan, Joseph H.P., T.J. Wong, and Tianyu Zhang, 2005, The Emergence of Corporate Pyramids in China, working paper, Chinese University of Hong Kong.

- Frank, Mary, Luann Lynch, and Sonja Rego, 2009, Tax reporting aggressiveness and its relation to aggressive financial reporting. *The Accounting Review* 84, 467–496.
- Gibbons, Robert and Murphy, Kevin, 1992, Optimal Incentive Contracts in the Presence of Career Concerns: Theory and Evidence, *Journal of Political Economy*, 100(3), 468-505.
- Grossman, Sanford, and Oliver Hart, 1988, One Share-One Vote and the Market for Corporate Control, *Journal of Financial Economics*, 20, 175-202.
- Groves, Theodore, Yongmiao Hong, John McMillan and Barry Naughton, 1995, China's evolving managerial labor market, *Journal of Political Economy* 103, 873-892.
- Gupta, Nandini, 2005, Partial privatization and firm performance, *Journal of Finance* 60, 987-1015.
- Gupta, Sanja, and Kaye Newberry, 1997, Determinant s of the Variability in Corporate Effective Tax Rate, Evidence from Longitudinal Data, *Journal of Accounting and Public Policy* 16, 1-39.
- Hart, Oliver, 1995, *Firms, Contracts, and Financial Structure*. Oxford University Press, Oxford, U.K.
- Hanlon, Michelle, and Shane Heitzman, 2010. A review of tax research. *Journal of Accounting and Economics* 50, 127-178.
- Jensen, Michael, and William Meckling, 1976. Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics* 3, 305-360.
- Jian, Ming, and T.J. Wong, 2010. Propping and Tunneling through Related Party Transactions. *Review of Accounting Studies*, 15(1), 70-105.
- Jiang, Guohua, Charles Lee, and Heng Yue, 2010. Tunneling through intercorporate loans: The China experience. *Journal of Financial Economics* 98, 1-20.
- Johnson, Simon, Peter Boone, Alasdair Breach, and Eric Friedman, 2000a, Corporate governance in the Asian financial Crisis , *Journal of Financial Economic* 58, 141-186.
- Johnson, Simon, Rafael La Porta, Andrei Shleifer and Florencio Lopez-de-Silanes, 2000b, Tunneling, *American Economic Review Papers and Proceedings* 90, 22-27.
- La Porta, Rafael, Florencio López-de-Silanes, and Guillermo Zamarripa. 2003, Related Lending , *Quarterly Journal of Economics* 118, 231-268
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shieifer and Robert W. Vishny. 1998, Law and Finance, *Journal of Political Economy* 106, 1113-1155.
- La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shieifer, 1999, Corporate ownership around the world, *Journal of Finance* 54, 471-517.
- La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shieifer, 2000, Investor protection and corporate governance, *Journal of Financial Economics* 59, 3-27.
- La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shieifer, 2006, What works in securities laws? *Journal of Finance* 61, 1-32.
- Lemmon, Michael and Karl Lins, 2003, Ownership Structure, Corporate Governance, and Firm Value: Evidence from the East Asian Financial Crisis. *Journal of Finance* 58, 1445-1468.
- Li, David, 1998, Changing incentives of the Chinese bureaucracy. *American Economic Review* 88, 393–397
- Li, Hongbin and Li-An Zhou, 2005, Political turnover and economic performance: The incentive role of personnel control in China. *Journal of Public Economics* 89(9), 1743–1762.
- Lin, Chen and Dongwei Su, 2009, Does state control affect managerial incentives? Evidence from China's publicly listed firms. *Journal of Business Economics and Management* 10, 291-311.

- Liu, Qiao, and Joe Lu. 2007, Corporate Governance and Earnings Management in the Chinese Listed Companies: A Tunneling Perspective, *Journal of Corporate Finance* 13, 881-906.
- Liu, Qiao, 2005, Corporate Governance in China: Current Practices, Economics Effects, and Institutional Determinants. Working paper, the University of Hong Kong.
- Manzon, Gil, and George Plesko, 2002, The relation between financial and tax reporting measures of income. *Tax Law Review* 55, 175–214.
- MacNeil, Iain, 2002, Adaptation and convergence in corporate governance: The case of Chinese listed companies. *Journal of Corporate Law Studies* 2, 289-344.
- Mills, Lilian, 1998, Book-tax differences and internal revenue service adjustments. *Journal of Accounting Research* 36, 343–356.
- Mills, Lilian, and George Plesko, 2003, Bridging the gap: A proposal for more informative reconciling of book and tax income. *National Tax Journal* 56, 865-893.
- Peng, Winnie, John Wei, and Zhishu Yang, 2006, Tunneling or propping: evidence from connected transactions in China. Working paper, Hong Kong University of Science and Technology.
- Piotroski, J., and T.J. Wong, 2011. Institutions and information environment of Chinese listed firms, working paper, Stanford University and the Chinese University of Hong Kong.
- Richter, Brian, Krislert Samphantharak, and Jeffrey Timmons, 2008, Lobbying and Taxes , Working Paper.
- Rego, Sonja, 2003, Tax avoidance activities of U.S. multinational corporations. *Contemporary Accounting Research* 20, 805-833.
- Scholes Myron, Mark Wolfson, Merle Erickson, Edward Maydew, and Terrence Shevlin, 2005, Taxes and Business Strategy: A Planning Approach. 3rd edition, Pearson Prentice Hall, Upper Saddle River, NJ.
- Shackelford, Douglas, and Terrence Shevlin, 2001, Empirical tax research in accounting. *Journal of Accounting and Economics* 31, 321-387.
- Shleifer, Andrei, and Robert Vishny, 1997, Politicians and firms. *Quarterly Journal of Economics* 109, 995-1025.
- Shleifer, Andrei, and Robert Vishny, 1997, A Survey of Corporate Governance. *Journal of Finance* 52, 737-783.
- Su, Dongwei, 2005, Corporate finance and state enterprise reform in China. *China Economic Review* 16, 118-148.
- Sun Qian, and Wilson Tong, 2003, China share issue privatization: the extent of its success. *Journal of Financial Economics* 70, 183-222.
- Tvaronavičiene, Manuela, and Kristina Kalašinskaite, 2005, Analysis of privatization: Different approaches. *Journal of Business Economics and Management* 6(1), 53-59.
- Wang, Qian, T.J. Wong and Lijun Xia, 2008, State ownership, the institutional environment, and auditor choice: Evidence from China. *Journal of Accounting and Economics* 46(1), 112-134.
- Zingales, Luigi. 1994, The Value of the Voting Right: A Study of the Milan Stock Exchange Experience. *Review of Financial Studies* 7, 125-148.

Appendix: Variable Definitions

Variable	Definition
<i>ETR</i>	Current income tax expense divided by pretax income, if the value is greater than 1 (smaller than 0) then it is set to 1 (0). Source: CSMAR database.
<i>CETR</i>	Cash income tax expenses paid divided by pretax income, if the value is greater than 1 (smaller than 0) then it is set to 1 (0). Source: CSMAR database.
<i>Rank_ETR</i>	The decile rank of industry-year median adjusted <i>ETR</i> . Industry-year median adjusted <i>ETR</i> is equal to a firm's <i>ETR</i> minus the median <i>ETR</i> of the same industry year. Source: CSMAR database.
<i>Rank_CETR</i>	The decile rank of industry-year median adjusted <i>CETR</i> . Industry-year median adjusted <i>ETR</i> is equal to a firm's <i>CETR</i> minus the median <i>CETR</i> of the same industry year. Source: CSMAR database.
<i>SOE</i>	A dummy variable equal to one if a firm is controlled by the state, and zero otherwise. Source: CCER database.
<i>PROMOTION</i>	A dummy variable equal to one if the manager gets promoted to a higher level position in the next year, and zero otherwise. Source: Manual collection.
<i>ROA</i>	The operating income divided by total assets. Source: CSMAR database.
<i>SIZE</i>	The natural logarithm of the book value of total assets. Source: CSMAR database
<i>LEV</i>	Total liabilities divided by total assets. Source: CSMAR database
<i>TQ</i>	Tobin's Q, the sum of market value of equity and book value of liabilities divided by the book value of total assets. Source: CSMAR database and CCER database.
<i>PPE</i>	The net value of fixed assets divided by total assets. Source: CSMAR database.
<i>LagLOSS</i>	A dummy variable equal to one if the firm reports a loss in the previous year, and zero otherwise. Source: CSMAR database.
<i>OTHTAX</i>	Other taxes or fees paid to the government divided by revenue. Source: CSMAR database.
<i>LARGEOWN</i>	The ownership percentage of the largest shareholder. Source: CSMAR database.
<i>AGE</i>	CEO age. Source: CSMAR database and manual collection.
<i>TENURE</i>	CEO tenure. Source: CSMAR database and manual collection.
<i>LnGDP</i>	Natural logarithm of per capita GDP of the province where the firm is located. Source: CSMAR database.
<i>MARINDEX</i>	The marketization index of the region where the firm is located. Source: Fan et al. (2010).
<i>MGTOWN</i>	Management ownership. Source: CCER database.
<i>CEOCHAIR</i>	A dummy variable equal to one when CEO is also the chair of the board of directors, and zero otherwise. Source: CCER database.

Table 1
Sample Descriptive Statistics

Panel A : Sample composition based on ownership

	# of firm-years	Percent	# of firms
SOEs	3,901	70.09%	1,036
Central SOEs	1,119	20.10%	760
Local SOEs	2,782	49.98%	330
Non-SOEs	1,665	29.91%	555
Full sample	5,566	100.00%	1,422

Panel B: Industry distribution of sample firm-years

Industry	# of SOEs	# of Non-SOEs	# of firm-years	% of SOEs
Agriculture	87	44	131	59.09%
Mining	94	3	97	96.30%
Food	160	71	231	65.67%
Apparel	111	119	230	47.37%
Furniture	0	12	12	0.00%
Printing	71	32	103	56.76%
Gas and Chemistry	457	156	613	70.35%
Electronic	112	63	175	58.62%
Metal	401	127	528	70.27%
Machinery	624	244	868	66.13%
Pharmaceutical products	219	157	376	53.21%
Other Manufacturing	42	34	76	50.00%
Energy Supply	250	21	271	89.55%
Construction	86	31	117	70.97%
Transportation	223	25	248	85.07%
Information Technology	191	123	314	52.83%
Retail & Wholesale	285	107	392	67.59%
Real estate	159	101	260	61.97%
Other Service Supply	131	41	172	72.92%
Communication	33	7	40	70.00%
Other	165	147	312	51.16%

Table 1 (cont.)
Sample Descriptive Statistics

Panel C: Distribution of departing CEOs by the outcomes of political promotion evaluation

The outcomes of CEO political promotion evaluation	N	Percent
Promotions:	70	11.08%
Government Positions	6	0.95%
Manager in a parent firm	20	3.16%
Vice Manager in a parent firm	44	6.96%
Similar or lower level internal positions: ^a	338	54.38%
Other outcomes:	120	18.99%
Sick or Deceased	8	1.27%
Arrested	16	2.53%
Retired	35	5.54%
Ambiguous ^b	61	9.65%
Missing:	104	16.46%
Total	632	100.00%

Notes: This table shows the sample decompositions. In panel A, the sample is decomposed by ownership; in panel B, the sample is decomposed by industries; in panel C, the sample is decomposed by the outcomes of CEO political promotion evaluations.

^a: “Similar or Lower Level Internal Positions” includes observations where managers are assigned to similar or lower level positions in other firms or other positions within the same firm.

^b: “Unambiguous” refer to observations for which we cannot clearly tell what are the reasons for CEO departure.

Table 1 (cont.)
Sample Descriptive Statistics

Panel A: Composition by the Ownership

	SOEs		Non-SOEs		T test for the difference in mean	Wilcoxon test for the difference in median
	Mean	Median	Mean	Median		
<i>ETR</i>	0.249	0.207	0.242	0.201	1.161	1.854*
<i>CETR</i>	0.235	0.182	0.223	0.168	1.894*	3.451***

Panel B: Composition by the hierarchy of SOEs

	Central SOEs		Local SOEs		T test for the difference in mean	Wilcoxon test for the difference in median
	Mean	Median	Mean	Median		
<i>ETR</i>	0.224	0.181	0.259	0.223	4.867***	5.520***
<i>CETR</i>	0.216	0.164	0.243	0.193	3.584***	3.835***

Panel C: Probability of promotion by quintiles of tax rates

	<i>Quintiles of ETR</i>				
	1(Lowest)	2	3	4	5(Highest)
<i>Prob(Promotion)</i>	1.25%	2.5%	2.68%	3.22%	2.86%
	<i>Quintiles of CETR</i>				
	1(Lowest)	2	3	4	5(Highest)
<i>Prob(Promotion)</i>	1.61%	2.68%	2.86%	3.22%	2.15%

Notes: This table shows the relation between tax rates (*ETR*; *CETR*) and state ownership and the relation between promotion and tax rates (*ETR*; *CETR*). Panel A uses all observations. Panels B and C use only the sample of state owned enterprises. ***, ** and * refer to significance at the 0.01, 0.05 and 0.10 level (two-sided test), respectively.

Table 3
Descriptive Firm Characteristics and Correlation Matrix

Panel A: Descriptive Statistics

	SOEs			Non-SOEs			T test for the difference in mean	Wilcoxon test for the difference in median
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.		
<i>ROA</i>	0.050	0.038	0.049	0.048	0.040	0.049	-1.327	0.431
<i>Assets (in 100 million)</i>	51.90	20.60	221.1	19.52	12.58	23.89	-5.974***	-18.355***
<i>LEV</i>	0.488	0.499	0.181	0.512	0.518	0.199	4.486***	3.577***
<i>TQ</i>	1.964	1.573	1.221	2.383	1.732	1.744	10.238***	7.847***
<i>PPE</i>	0.331	0.305	0.191	0.268	0.249	0.166	-11.655***	-10.922***
<i>LagLOSS</i>	0.084	0.000	0.278	0.132	0.000	0.338	5.425***	5.411***
<i>OTHTAX</i>	0.052	0.045	0.041	0.052	0.042	0.047	-0.172	-1.932*
<i>AGE</i>	47.15	46.00	6.300	44.65	44.00	6.734	-13.177***	-13.278***
<i>TENURE</i>	3.865	3.000	2.570	3.536	3.000	2.533	-4.375***	-5.043***
<i>LARGEOWN</i>	0.432	0.429	0.162	0.325	0.293	0.135	-23.703***	-23.013***
<i>LnGDP</i>	8.920	8.933	0.780	9.060	9.133	0.900	5.817***	8.108***

Table 3
Descriptive Firm Characteristics and Correlation Matrix

Panel B: Pair-wise Correlations (significant correlations are bold)

	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>
<i>1. ETR</i>	1.000											
<i>2. CETR</i>	0.737											
<i>3. ROA</i>	-0.103	-0.133										
<i>4.SIZE</i>	-0.001	-0.008	0.199									
<i>5.LEV</i>	0.077	0.034	-0.351	0.146								
<i>6.TQ</i>	-0.030	-0.040	0.270	-0.259	-0.075							
<i>7.PPE</i>	-0.025	-0.007	0.065	0.164	-0.065	-0.109						
<i>8.LagLOSS</i>	-0.030	-0.058	-0.273	-0.208	0.221	0.105	-0.006					
<i>9.OTHTAX</i>	-0.016	0.135	0.064	0.003	-0.133	0.057	0.153	-0.024				
<i>10.AGE</i>	-0.01	0.005	0.065	0.182	-0.017	-0.026	0.112	-0.050	0.026			
<i>11.TENURE</i>	-0.006	0.000	0.091	0.152	-0.017	-0.016	0.059	-0.114	0.005	0.321		
<i>12. LARGEOWN</i>	-0.066	-0.049	0.172	0.235	-0.116	-0.081	0.104	-0.10	0.032	0.070	-0.059	
<i>13.LogGDP</i>	0.115	0.106	0.101	0.128	0.003	0.096	-0.052	-0.043	-0.123	0.030	0.066	1.000

Notes: This table shows statistics and correlations for firm characteristics. In Panel A, all the continuous variables are winsorized at the 1% and 99% levels. Panel B reports the Pearson correlations among variables. The significant correlations are bold. ***, ** and * refer to significance at the 0.01, 0.05 and 0.10 level (two-sided test), respectively.

Table 4
Multivariate Regression of Tax Avoidance and State Ownership

	Dependent variable =	
	(1) <i>ETR</i>	(2) <i>CETR</i>
Intercept	0.206** (2.34)	0.105 (1.16)
<i>SOE</i>	0.018** (2.20)	0.018** (2.13)
<i>ROA</i>	−0.437*** (−5.00)	−0.818*** (−8.90)
<i>SIZE</i>	−0.015*** (−3.73)	−0.011*** (−2.64)
<i>LEV</i>	0.046** (2.07)	−0.015 (−0.64)
<i>TQ</i>	−0.016*** (−4.73)	−0.008** (−2.34)
<i>PPE</i>	−0.013 (−0.57)	−0.015 (−0.62)
<i>LagLOSS</i>	−0.040*** (−3.04)	−0.069*** (−5.20)
<i>LnGDP</i>	0.029*** (6.57)	0.031*** (7.03)
R ²	0.09	0.08
N	5,566	5,566

Note: This table tests the relation between tax rates (*ETR*; *CETR*) and state ownership (*SOE*). The first column uses *ETR* as the dependent variable, and the second column uses *CETR*. Variable definitions are provided in Appendix. All models include both year and industry fixed effects, and standard errors are clustered by firm. t-statistics are reported in parentheses. ***, ** and * refer to significance at the 0.01, 0.05 and 0.10 level (two-sided test), respectively.

Table 5
Robustness Tests for Elimination of Firms with Possible Preferential Tax Treatment

	Dependent Variable=	
	(1) <i>ETR</i>	(2) <i>CETR</i>
<i>Panel A: Eliminating observations in economic development zones</i>		
<i>SOE</i>	0.020** (2.49)	0.020** (2.38)
Other Control Variables	Yes	Yes
Year and Industry Fixed Effects	Yes	Yes
R ²	0.08	0.07
N	5,461	5,464
<i>Panel B: Eliminating observations with possible foreign ownership</i>		
<i>SOE</i>	0.020** (2.47)	0.020** (2.36)
Other Control Variables	Yes	Yes
Year and Industry Fixed Effects	Yes	Yes
R ²	0.08	0.07
N	5,500	5,500
<i>Panel C: Eliminating observations of young firms (< 3 years)</i>		
<i>SOE</i>	0.020** (2.52)	0.021** (2.43)
Other Control Variables	Yes	Yes
Year and Industry Fixed Effects	Yes	Yes
R ²	0.09	0.07
N	5,523	5,523

Notes: This table tests the relation between tax rates (*ETR*; *CETR*) and state ownership (*SOE*) after eliminating observations which might enjoy preferential tax rates or tax incentives. In Panel A, we eliminate observations domiciled in special locations, including hi-tech industry development zones and economic development zones (that sometimes receive preferential tax rates); In Panel B, we eliminate observations with foreign ownership (that receive preferential tax); In Panel C, we eliminate observations of firms younger than three years (that receive special deductions for start-up expenses). The first column uses current effective tax rate as the dependent variable, the second column uses current cash effective tax rate. Variable definitions are provided in Appendix. All models include both year and industry fixed effects, and standard errors are clustered by firm. t-statistics are reported in parentheses. ***, ** and * refer to significance at the 0.01, 0.05 and 0.10 level (two-sided test), respectively.

Table 6
Probit Regression of SOE Manager Promotion and Tax Avoidance

	Dependent Variable= <i>Promotion</i>			
	(1)	(2)	(3)	(4)
<i>ETR</i>	0.734*** (3.15)			
<i>Rank_ETR</i>		0.058*** (2.95)		
<i>CETR</i>			0.186 (0.92)	
<i>Rank_CETR</i>				0.032* (1.69)
<i>ROA</i>	0.032 (0.03)	-0.386 (-0.36)	-0.195 (-0.17)	-0.374 (-0.34)
<i>OTHTAX</i>	-1.788 (-1.06)	-0.154 (-0.11)	-2.002 (-1.17)	-0.449 (-0.30)
<i>SIZE</i>	0.231*** (3.32)	0.181** (2.50)	0.216*** (3.14)	0.167** (2.28)
<i>LEV</i>	-0.680* (-1.93)	-0.693* (-1.95)	-0.602* (-1.73)	-0.631* (-1.75)
<i>AGE</i>	-0.023** (-2.47)	-0.020** (-2.14)	-0.022** (-2.47)	-0.019** (-1.98)
<i>TENURE</i>	-0.034 (-1.25)	-0.034 (-1.26)	-0.034 (-1.25)	-0.035 (-1.28)
<i>LARGEOWN</i>	1.308*** (3.40)	1.290*** (3.34)	1.284*** (3.39)	1.317*** (3.35)
<i>LnGDP</i>	-0.118 (-1.47)	-0.122 (-1.64)	-0.098 (-1.24)	-0.127* (-1.73)
Pseudo R ²	0.11	0.08	0.10	0.07
N	2,797	2,797	2,797	2,797

Notes: This table use probit model to test the relation between tax rates and political promotions in state owned enterprises. The first column uses current effective tax rate as the dependent variable, the second column uses industry-year median adjusted tax rate, the third column uses current cash effective tax rate, the fourth column uses industry-year median adjusted current cash effective tax rate. Variable definitions are provided in Appendix. All models include year fixed effects, and standard errors are clustered by firm. Columns 1 and 3 also control for industry fixed effects. The Z-statistics are reported in parentheses. ***, ** and * refer to significance at the 0.01, 0.05 and 0.10 level (two-sided test), respectively.

Table 7
The Effect of the Term of Manager Evaluation on Tax Avoidance

Dependent variable =				
	<i>ETR</i>		<i>CETR</i>	
	(1) Term=1&2	(2) Term=3	(3) Term=1&2	(4) Term=3
<i>Intercept</i>	0.211** (2.16)	0.243* (1.71)	0.127 (1.26)	0.079 (0.53)
<i>SOE</i>	0.013 (1.43)	0.029** (2.35)	0.015 (1.64)	0.024* (1.80)
<i>ROA</i>	-0.421*** (-4.41)	-0.405*** (-2.68)	-0.734*** (-7.25)	-0.939*** (-5.84)
<i>SIZE</i>	-0.015*** (-3.31)	-0.019*** (-2.77)	-0.009** (-2.11)	-0.018** (-2.51)
<i>LEV</i>	0.044* (1.74)	0.080** (2.15)	-0.013 (-0.49)	0.006 (0.16)
<i>TQ</i>	-0.016*** (-4.14)	-0.018*** (-2.66)	-0.009** (-2.08)	-0.009 (-1.36)
<i>PPE</i>	-0.002 (-0.09)	-0.041 (-1.14)	-0.021 (-0.79)	0.003 (0.08)
<i>LagLOSS</i>	-0.043*** (-2.97)	-0.017 (-0.56)	-0.072*** (-4.89)	-0.050 (-1.61)
<i>LnGDP</i>	0.029*** (6.10)	0.030*** (4.69)	0.028*** (5.59)	0.045*** (6.43)
R ²	0.09	0.11	0.08	0.11
N	3,957	1,474	3,957	1,474

Notes: This table tests the relation between tax rates (*ETR*; *CETR*) and state ownership (*SOE*) in different years of the evaluation cycle. Term=1&2 indicates observations in the first two years of the evaluation cycle; Term=3 indicates observations in the third year of the evaluation cycle. The first two columns use *ETR* as the dependent variable, and the last two column use *CETR*. Variable definitions are provided in Appendix. All models include both year and industry fixed effects, and standard errors are clustered by firm. t-statistics are reported in parentheses. ***, ** and * refer to significance at the 0.01, 0.05 and 0.10 level (two-sided test), respectively.

Table 8
Analysis of Tax Avoidance for Centrally-Owned versus Locally-Owned SOEs

	Dependent Variable =	
	(1) <i>ETR</i>	(2) <i>CETR</i>
<i>Intercept</i>	0.196** (2.22)	0.098 (1.08)
<i>CENTRAL SOE</i>	0.007 (0.66)	0.010 (0.93)
<i>LOCAL SOE</i>	0.023*** (2.66)	0.021** (2.30)
<i>ROA</i>	-0.435*** (-4.99)	-0.818*** (-8.90)
<i>SIZE</i>	-0.015*** (-3.60)	-0.010** (-2.53)
<i>LEV</i>	0.045** (2.01)	-0.016 (-0.68)
<i>TQ</i>	-0.015*** (-4.62)	-0.008** (-2.25)
<i>PPE</i>	-0.014 (-0.62)	-0.016 (-0.65)
<i>LagLOSS</i>	-0.039*** (-3.01)	-0.069*** (-5.18)
<i>LnGDP</i>	0.029*** (6.56)	0.031*** (7.01)
R ²	0.09	0.08
N	5,566	5,566

Notes: This table tests the relation between tax rates (*ETR*; *CETR*) and the hierarchy of state ownership. The first column uses *ETR* as the dependent variable, and the second column uses *CETR*. Variable definitions are provided in Appendix. All models include both year and industry fixed effects, and standard errors are clustered by firm. t-statistics are reported in parentheses. ***, ** and * refer to significance at the 0.01, 0.05 and 0.10 level (two-sided test), respectively.

Table 9
Analysis of the Association Between Long Window Stock Returns and Reported Tax Expense for SOEs

	Dependent Variable= <i>Excessive Cumulative Return</i>	
	(1)	(2)
<i>Intercept</i>	3.426*** (4.24)	3.351*** (4.17)
<i>ETR</i>	-0.199*** (-3.94)	
<i>CETR</i>		-0.231*** (-5.15)
<i>Lag_ SIZE</i>	-1.091*** (-4.09)	-1.064*** (-4.01)
<i>Lag_ MB</i>	-0.045*** (-6.69)	-0.045*** (-6.69)
<i>Lag_ Lev</i>	0.472*** (6.37)	0.461*** (6.25)
<i>ROA</i>	1.309*** (5.21)	1.240*** (4.90)
R ²	0.05	0.06
N	3,800	3,800

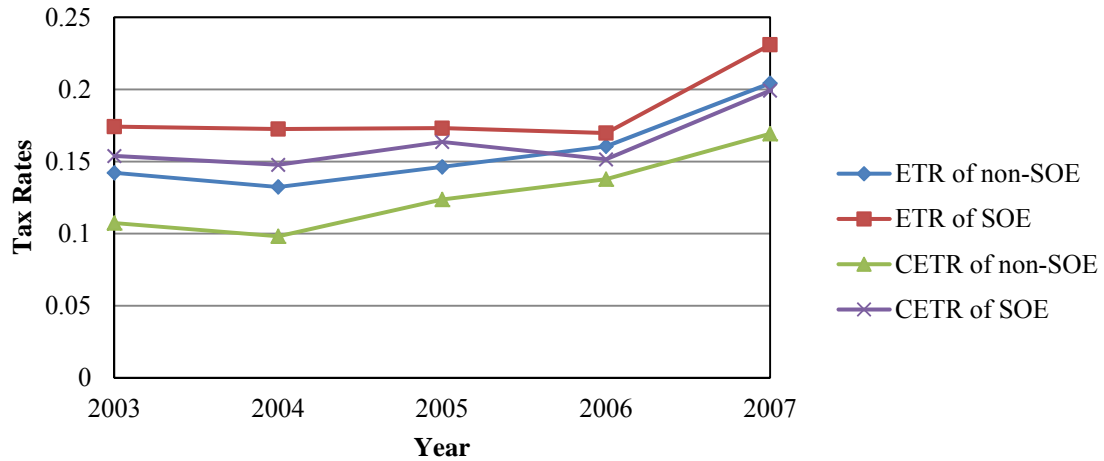
Notes: This table tests the relation between excessive cumulative returns and tax rates (*ETR*; *CETR*). The sample includes only state owned enterprises. *Excess Cumulative Return* is calculated as cumulative stock return from May in the current year to April in the next year minus the cumulative market return during the same period. *Lag_ SIZE* refers to *SIZE* at the beginning of the current fiscal year. *Lag_ MB* refers to *MB* at the beginning of the current fiscal year. *Lag_ LEV* refers to *LEV* at the beginning of the current fiscal year. All models include industry fixed effects, and standard errors are clustered by firm. t-statistics are reported in parentheses. ***, ** and * refer to significance at the 0.01, 0.05 and 0.10 level (two-sided test), respectively.

Table 10
The Impact of Monitoring on the Association between State Ownership and Tax Avoidance

	Dependent Variable=	
	(1) <i>ETR</i>	(2) <i>CETR</i>
<i>Panel A: The Effect of Marketization</i>		
<i>SOE</i>	0.100*** (3.49)	0.118*** (3.93)
<i>SOE*MARINDEX</i>	-0.010*** (-2.94)	-0.012*** (-3.42)
<i>MARINDEX</i>	-0.005 (-1.33)	-0.000 (-0.10)
R ²	0.10	0.09
N	5,566	5,566
<i>Panel B: The Effect of Management Ownership</i>		
<i>SOE</i>	0.017** (2.02)	0.018** (2.04)
<i>SOE*MGTOWN</i>	-0.310 (-1.47)	-0.325 (-1.32)
<i>MGTOWN</i>	-0.054 (-0.89)	-0.027 (-0.44)
R ²	0.09	0.08
N	5,566	5,566
<i>Panel C: The Effect of CEO & Board Chair Duality</i>		
<i>SOE</i>	0.010 (1.21)	0.012 (1.36)
<i>SOE*CEOCHAIR</i>	0.077*** (3.06)	0.062** (2.46)
<i>CEOCHAIR</i>	-0.036** (-2.10)	-0.027 (-1.49)
R ²	0.10	0.08
N	5,566	5,566

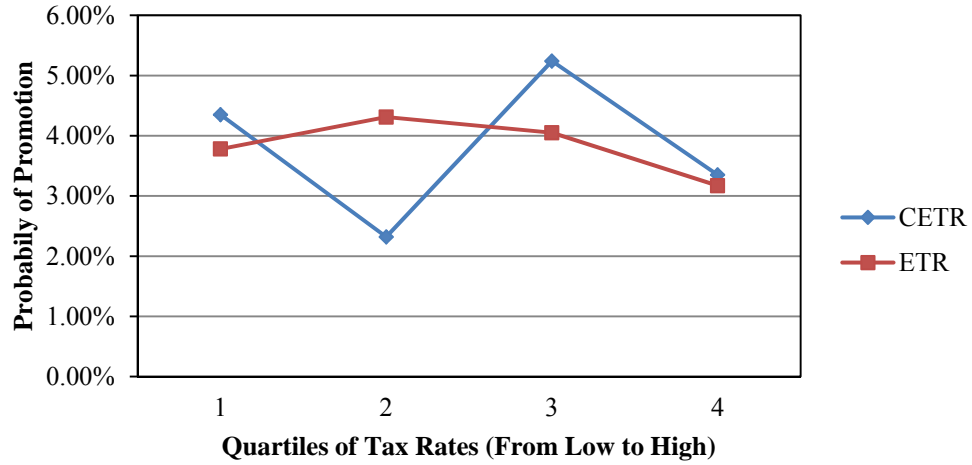
Notes: This table tests the effect of monitoring on the relation between tax rates (*ETR*; *CETR*) and state ownership (*SOE*). The first column uses *ETR* as the dependent variable, and the second column uses *CETR*. Variable definitions are provided in Appendix. All models include both year and industry fixed effects, and standard errors are clustered by firm. t-statistics are reported in parentheses. ***, ** and * refer to significance at the 0.01, 0.05 and 0.10 level (two-sided test), respectively.

Figure 1
Time Series Behavior of Tax Rates



Notes: This figure shows how tax rates change across years. As shown in the figure, for both tax rate measures, state owned enterprises have higher tax rates than do non-state owned enterprises.

Figure 2
Probability of Promotion for non-SOE Managers



Notes: This figure shows the probability of promotion for non-SOE managers across the quartiles of tax rates. As shown in the figure, the probability of promotion for non-SOE Managers does not have a clear trend across the quartiles of tax rates.