

The Political Economy of Corporate Tax Avoidance

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Abstract: This paper employs a new empirical approach for identifying the impact of politicians' opportunistic policy preferences on corporate tax avoidance. Our key innovation is to use turnovers of local politicians as a source of exogenous variation in tax enforcement efforts, which have strong implications for firms' strategic tax avoidance decisions. Using data on turnovers of China's municipal political leaders and industrial firms in their jurisdictions, we document cycles in corporate tax avoidance corresponding with the timing of local politician turnovers. The political cycle of tax avoidance is more pronounced in municipal cities with strong tax base and weaker governance. The cycle occurs when a local politician is younger and follows an upward career trajectory. The tax avoidance cycle is also more evident among firms that can potentially derive higher value from strategically engaging in tax avoidance activity. Our findings suggest that varying tax enforcement driven by local politicians' policy preferences is an important channel – entirely different from the political uncertainty and political connection channels – through which the political process affects real economic activity.

Keywords: political turnovers; tax avoidance cycle; enforcement; political economy.

JEL Code: G31; G34; H26; K42; P48

1. Introduction

Tax avoidance is a strategic corporate practice pervasive in both developed and emerging markets (e.g., Slemrod, 2004; Desai and Dharmapala, 2006; and Cai and Liu, 2009). Firms strategically trade off the benefits and potential costs of engaging in tax avoidance activity. This tradeoff however could be significantly influenced by politics, since politicians' opportunistic policy choices have strong implications for their tax enforcement efforts. In facing opportunistic tax enforcement efforts, firms strategically engage in tax avoidance activity to maximize their interest. This political economic perspective of tax avoidance however has not been investigated in the literature.¹ In this paper, we employ a new empirical approach to identify the impact of politicians' opportunistic policy preferences on corporate tax avoidance. Specifically, we use turnovers of China's municipal political leaders as a source of exogenous variation in tax enforcement efforts, and study how varying tax enforcement efforts affect firms' strategic tax avoidance decisions.

The motivation of our empirical study is two-fold. First, the literature on political business cycle proposes that the incumbent politicians strategically use fiscal and monetary policy instruments to maximize the probability of being re-elected (e.g., Nordhaus, 1975; Rogoff and Sibert, 1988; and Rogoff 1990). Empirical studies show that government spending and macroeconomic outcomes such as inflation and unemployment display cyclical patterns following the cycles of political events such as elections or government turnovers.² We extend this argument to tax enforcement and corporate tax avoidance by documenting a similar tax avoidance cycle corresponding to the timing of political turnovers.

Second, investigating the impact of tax enforcement efforts on corporate tax avoidance activity is unavoidably plagued by two sources of endogeneity concern: (i) excessive tax avoidance activities may trigger more enforcement efforts; and (ii) both tax avoidance and tax enforcement efforts could be affected by unobserved common factors (i.e., adverse business

¹ Desai, Dyck, and Zingales (2007) is a notable exception. They study an episode of increased tax enforcement in Russia following the election of Vladimir Putin.

² For example, see Levitt, 1997; Akhmedov and Zhuravskaya, 2004; Brender and Drazen; 2008; and Liu and Ngo, 2014.

conditions). Turnovers of local politicians provide an interesting setting to resolve these two sources of endogeneity. Politicians face limited terms and may be replaced by others with different policy preferences. While tax laws remain relatively stable, the extent to which they are enforced depends on politicians' policy preferences. Political turnovers lead to shifting policy preferences, which generate plausible exogenous variation in tax enforcement efforts, and allow us to disentangle the endogeneity between tax avoidance and tax enforcement.

We use data on turnovers of China's municipal political leaders and industrial firms in these leaders' jurisdictions to examine how incentives and policy preferences faced by local politicians affect strategic corporate tax avoidance decisions. During China's reform era, local politicians have significant autonomy in economic matters. Municipal political leaders are assessed and promoted primarily based on local economic growth. Political tournaments based on economic growth push local officials to focus on measureable objectives such as GDP growth (Maskin et al., 2000; Li and Zhou, 2005; and Xu, 2011). Local politicians, during the early period of their terms, have stronger incentives to perform well in the between region economic competition. Strengthening tax enforcement to exploiting local tax base more effectively is a convenient choice. Enhancing enforcement efforts not only generates immediate effects on fiscal revenue but also enhances local governments' borrowing capacity. In addition, tax enforcement and tax policy adjustment give local politicians more latitude to engage in rent-seeking activity (Shleifer and Vishny, 1993).

However, strengthened tax enforcement can hardly last long. Unfavorable changes in tax enforcement may drive out investments and business activities.³ In the regional economic competition, tax enforcement may become a bargaining tool to attract new businesses. Lax tax treatment demonstrates local government's commitment to new projects. As different regions compete on economic growth driven by new businesses and new investments, tightened enforcement may in the long run hurt local politicians' interest. Local politicians thus may choose to loosen up tax enforcement gradually. Reacting to local politicians'

³ Existing business may move new projects to regions that provide beneficial tax treatments, or shift their income through transfer pricing to other regions (Shevlin et al., 2012).

shifting tax enforcement efforts, firms conduct tax avoidance activity accordingly. We thus expect a tax avoidance cycle of corresponding to the timing of local political turnovers.⁴

Using a hand-collected dataset of local political leaders in more than 300 municipal cities in China during 1999-2007, we examine how political turnovers affect corporate tax avoidance. A local politician typically follows a five-year term in China. However, most could not complete their terms (Landry et al., 2014).⁵ Turnovers of local politicians are largely unexpected and out of the control of any individual firm. We therefore exploit this exogenous timing of political turnovers to mitigate the potential endogeneity. Meanwhile, as Chinese local politicians have no legislation discretion in making their own tax laws, our results are exempted from the effects of tax law modifications by local politicians. Furthermore, turnovers of municipal political leaders take place at different points in time, allowing us to net out market-wide trends in corporate tax avoidance.

Consistent with our proposed political economic hypothesis, we find a cyclical pattern of corporate tax avoidance. Specifically, we find novel and robust evidence that firms exhibit weaker incentives to conduct tax avoidance activity in the first year of a municipal political leader's term. They however increase the extent of tax avoidance over time until the local politician is replaced by a new one.

As a further analysis, we exploit a natural experiment which generates exogenous variation in local politicians' tax enforcement efforts – the 2002 tax regulation change that significantly reduced politicians' capabilities to time tax enforcement efforts (see Section 2.2 for details). We find robust evidence that that after 2002, the political cycle of corporate tax avoidance becomes less evident. We also find that when the 2002 regulation change occurred during a politician's early (late) period of his term, firms in his jurisdiction exhibit weak (strong) incentives to avoid tax. These findings are consistent with our political economy hypothesis.

⁴ In a similar spirit, Huang (1996) documents a cycle of investment corresponding to the timing of political turnovers in China. Huang (1996) proposes that politicians' career concern push them to encourage more investment during the earlier period of their terms.

⁵ In our sample, for the period from 1999 to 2007, the average tenure of municipal political leaders (i.e., party secretaries) is 2.95 years, while the median tenure is 1.8 years, as shown in Table 2.

To address the possibility that turnovers of municipal political leaders may be correlated with omitted variables which have implications for firms' tax avoidance activity. We analyze a refined subsample in which turnovers of local politicians are due to sudden deaths, "Shuanggui" (under investigation), or dismissal from office.⁶ We conduct a difference-in-differences (DID) analysis and find that after the sudden change of a local political leader, firms operating in his jurisdiction engage less in tax avoidance. The economic effect of sudden political turnovers on tax avoidance is sizable. We find that after the sudden turnover of a local politician, firms reduce their tax avoidance level by as much as 12.3%.

While we provide robust evidence that the politics process, through the time-varying tax enforcement efforts, impact on corporate tax avoidance, we have to rule out alternative political channels.⁷ Political uncertainties brought about by political turnovers may lead to a similar tax avoidance cycle too. When a new municipal political leader takes his position, firms in his jurisdiction may not know much about his policy preferences and management style. These firms hence may behave more cautiously and reduce tax avoidance. Over time, as the new leader gradually reveals his policy preferences, firms engage more in tax avoidance. If the political uncertainty hypothesis holds, we expect the tax avoidance cycle to be less pronounced in municipal cities whose new leaders were promoted from within. However, we document a more pronounced cycle in cities whose new leaders come from outside. This evidence does not support the political uncertainty hypothesis.

Another prominent competing explanation is the political connection hypothesis. Politically connected firms may enjoy a wide range of benefits including preferential access to external financing, government contracts, tax benefits, government subsidies, and favorable policies. However, around political turnovers, established political connections are most likely

⁶ "Shuanggui" is a special scheme implemented by the discipline unit of China ruling party (CCP). This practice literally means that the involved party members have to confess his wrongdoings in the specified place and during the specified time period. When "Shuanggui" happens on a certain party member, he will be placed under custody. Removal from office normally applies to officials who have committed crimes and it is a harsher penalty than "shuanggui".

⁷ A large and growing literature examines the effects of political or policy uncertainties on real decisions and economic outcomes. For example, Bernanke (1983), Bloom, Bond, and Van Reenen (2007), and Julio and Yook (2012) study the relationship between political uncertainties and real investment.

broken and it takes time to foster strong connections to the new leaders. Reducing tax avoidance is therefore a firm's natural response to lost political connections. In addition, it helps appease new leaders' desire to secure more resources. This political connection hypothesis may explain the political cycle of tax avoidance as well. However, our evidence does not support this hypothesis. In particular, when a new leader is promoted from within, firms' political connections to him still remain, we expect firms to engage in more tax avoidance during early periods of new leader's term. We find exactly the opposite.

If our political economy hypothesis holds, we should expect the magnitude of the political cycle of tax avoidance to vary with region, politician, and firm level characteristics. It should be more evident in regions where the politicians have stronger incentives and capabilities to time enforcement efforts. It should also be more evidence among firms that can potentially derive higher value from strategically engaging in tax avoidance activity, in response to local governments' time varying enforcement efforts.

We find robust evidence. Across regions, we find that the political cycle of tax avoidance is more pronounced in municipal cities with deeper tax base (measured by local fiscal revenue over local GDP) and poorer public governance (measured by the value of marketization level scored by a given city). In both cases, the local politicians can benefit more from tightening up tax enforcements.

On a related point, we find that the age of municipal politicians and their career trajectories significantly matter. Young politicians (under 45 years old) usually have more time to climb the political hierarchy and thus, have stronger incentives to participate in the political tournament. When they approach the required retirement age (60 years old), they are less incentivized to time their efforts. Similarly, when a politician follows an upward career trajectory (i.e., he was promoted from a lower rank to the current post), he may demonstrate stronger incentives to perform as well. We find that the political cycle of corporate tax avoidance is more evidence in regions where the local politicians are young, and follow an upward career trajectory.

Within regions, we find that the effects of political turnovers on tax avoidance vary

across several firm characteristics. Specifically, we document that the political cycle of tax avoidance is more pronounced for non state-owned firms, small firms, and less fiscally important firms. Furthermore, we find evidence that the tax avoidance cycle is more pronounced for less efficient firms measured by lower total factor productivity (TFP) and higher administrative expenses.

The findings in this paper have three important contributions. First, we document a new stylized fact regarding corporate tax avoidance, namely, a political cycle of corporate tax avoidance. This result demonstrates an important link between the political process and real economic activity. Our paper is thus related to a growing literature that documents the economic consequence of politics. Specifically, Julio and Yook (2012) investigates how political turnovers impact on corporate investment through the political uncertainty channel. The literature has also documented the effects of political turnovers on initial public offering (Colak et al., 2013), industry return volatility (Boutchkova et al., 2012), and cash flows and stock returns (Kim et al., 2012; and Belo et al., 2013).

Second, we provide evidence suggesting that tax enforcement efforts are associated with politicians' changing policy preferences, and hence time-varying. We thus contribute to the literature on the relation between tax enforcement and tax avoidance.⁸ A major obstacle limiting empirical progress in this literature is the difficulty in identifying changes to tax enforcement efforts as truly exogenous. Tax enforcement efforts are influenced by firm behavior and developments in corporate sector. Using turnovers of municipal political leaders as a source of exogenous variation in tax enforcement efforts allow us to overcome this challenge and shed considerable light on the impact of tax enforcement on tax avoidance activity.

Third, our study adds to a large literature identifying the determinants of corporate tax

⁸ Not many studies directly test for the effect of tax enforcement on tax avoidance. Hoopes et al. (2012) find that U.S. public firms undertake less aggressive tax positions when tax enforcement is stricter (IRS monitoring). Gupta and Lynch (2012) examine the tax enforcement at state level and find that enhanced corporate tax enforcement results in the increase in state tax collections two years into the future. They also find that enforcement and restrictive tax policies are substitutes. DeBacker et al. (2013) find that corporations increase their tax aggressiveness after an audit for a few years and then reduce it gradually.

avoidance including corporate governance (e.g., Desai and Dharmapala, 2006; and McGuire, Wang, and Wilson, 2014), industry competition (Cai and Liu, 2009), financial constraints (Edwards et al., 2014), and credit information sharing systems and higher branch penetration (Beck et al., 2014). We find that politicians' policy preferences determine their tax enforcement efforts, which lead to a political cycle of corporate tax avoidance. On this particular point, our paper is related to Scholz and Wood (1998), Young et al. (2001), and Bagchi (2013).⁹

The rest of this paper proceeds as follows. Section 2 provides institutional background and testable hypotheses. Then Section 3 discusses data and empirical strategy, and research design. Section 4 presents our empirical findings. Section 5 provides cross-sectional evidence. Section 6 concludes.

2. Institutional Background and Hypotheses Development

2.1. Career paths and policy preferences of local politicians in China

The development in China during its reform era can be characterized by political centralization and economic decentralization (Xu, 2011). Political centralization means that the ruling party (CCP) has complete control over officials at all levels within the political system. The party's cadre management system is responsible for cadre appointment and promotion decisions in both the CCP and governments at all levels. To achieve an effective control, CCP builds up branches matching different levels of the government system. At the regional level, party secretary is the highest ranked political leader and has political power higher than the highest ranked government official at the same level.

Through its organization departments at different levels, CCP applies "one-level down" appointment system (Huang 1996; Landry 2008). The evaluation of local officials lies in the hands of party officials at a higher level. CCP frequently rotates the party officials to cope

⁹ Scholz and Wood (1998) find that IRS audits for corporate and individual increase with increased Democratic control over Congress and change with different presidential administrations. Young et al. (2001) find that the IRS audit rate of individual income tax is significantly lower in districts that are important to the president electorally and that have representation on key congressional committees. Bagchi (2013) shows the influence of political ideology on the enforcement of the nation's tax laws. Under Democratic administrations, budget devoted to detecting tax fraud and audit probabilities for corporations are significantly higher.

with local officials' entrenched interests and fight against corruption. Notably, formal personnel regulations imposed by CCP put strict rule on the retirement age: 60 years old for all officials below the rank of governor or provincial party secretary and 55 years old for female officials.

Typically, a municipal political leader (i.e., party secretary at the municipal city level) has several career paths. He may be purged due to misbehavior such as corruption; he may be relegated to an honorary post (i.e., head of political advisory commission) within the same city; he may be transferred to other region, a functional department of the party or the government, non-governmental organizations, and state enterprises. At the municipal city level, a mayor typically serves concurrently as (first) deputy secretary of the municipal CCP committee. Taking the post of municipal party secretary suggests a promotion. Of course, he may be promoted to a more senior position at the provincial level, and in some unusual cases, to a position at the central government level.

To advance political career, a local official needs to demonstrate his competence and political loyalty (Nathan and Gilley 2002). During China's reform era, China's local governments have significant autonomy in economic matters (Xu, 2011). Regional decentralization empowers local officials over economic development, public services and law enforcement within their jurisdictions. They enjoy the flexibility in enforcing laws, levying taxes, providing subsidies, and regulating competition. In addition, they directly control state-owned enterprises (SOEs) at their region. They can select the SOE managers, and significantly influence SOEs' investment and operating decisions. Local officials who can signal better outcomes of their autonomous power against their peers are likely to benefit by gaining access to the next level of political power.

Given such an institutional arrangement, local leaders compete for performance-based political promotion and GDP growth is a key performance indicator (Li and Zhou, 2005). Shih et al. (2012) identify factional ties with various top leaders, educational qualifications, and provincial revenue collection as key factors in explaining promotion outcomes of provincial leaders. Landry (2008) extends the analysis to the prefectural level of cities, and

finds that economic progress measured as GDP per capita over its value at the beginning of the appointment is positively related to promotion (locally and/or externally) of city mayors. Landry et al. (2014) further show that growth in fiscal revenue play a critical role in the promotion decisions of local officials at provincial, municipal, and county-level.

2.2. Income tax systems in China and tax enforcement

As Acemoglu and Robinson (2006) suggest, authoritarian leaders prioritize tax collection capacity. Facing powerful incentives to perform, taxes are convenient and effective tools for local officials to obtain resources for local development.

A series of tax reforms since 1994 result in fiscal decentralization of China. Under this system, the central government and the local governments have their own tax territories and their own tax bureaus-the state tax bureaus and the local tax bureaus respectively. The legislation power of tax rests on the center. But the local governments can issue rules or policies to facilitate the implementation of the tax laws, regulations and rulings of the central government. In order to compete for local economic growth, many local governments even provide various tax incentives without proper authorization from the center. For instance, Wu and Yue (2009) illustrated tax rebate policy by the local governments under which listed firms first paid income tax at the nominal tax rate of 33% and then the local governments refunded them 18% in order to attract businesses.

The central government and the local governments share responsibility to collect enterprise income tax. From 1994 to 2001, the state tax bureaus collected income tax on SOEs directly controlled by the central government and all the foreign enterprises. The local tax bureaus were responsible for income tax of local SOEs, collective firms, and private firms. During this period, the sharing ratio between the central and the local governments was 40% vs. 60%. On December 31, 2001, the State Council issued a circular to adjust the taxation scope of the state and the local tax bureaus and change the sharing ratio of enterprise income tax.¹⁰ Beginning 2002, all new companies paid income taxes to the local branches of the state

¹⁰ the Circular of the State Council on Distributing the Scheme on the Reform of Income Tax Revenue Sharing (GuoFa [2001] No.37).

tax bureau. But the local governments continued to levy income taxes from the existing local firms registered prior to 2002. In 2002, the central government and the local governments shared the income tax equally. The sharing ratio has settled at 60% vs. 40% beginning 2003. The 2002 regulation change reduced the local governments' capabilities to levy income tax. A further adjustment occurred in 2008. Since 2009, all new domestic firms which pay value-added tax (VAT) should pay income tax at the state tax bureaus, while the firms paying business tax should pay at the local tax bureaus. The restructuring of collection scope presents an exogenous shock to the local governments' tax responsibilities.

Local governments can affect tax enforcement through the structure of the local tax bureau system since the management of the local tax bureaus is subject to the organic law of the local governments. The local tax bureaus at provincial level are under the dual leadership of the provincial government and the State Administration of Taxation (SAT) at the central government level. The local tax bureaus below the provincial level are accountable to both the tax authorities at higher level and the governments at the same level. The dual leadership model enables local government to exert influence on tax enforcement of the local tax bureaus. Anecdotal evidence confirms the influence of local politicians on tax enforcement. For instance, when the central committee of the communist party of china removed Xilai Bo from his duty on March 15, 2012, the executive vice-mayor of Chongqing emphasized the first task for the Bureau of Finance was to enhance tax enforcement.¹¹

Tightened tax enforcement could be a double-edged sword. On the one hand, tightened tax enforcement brings in more fiscal revenue and quickly improves fiscal condition. On the other hand, it may push existing business to other regions. It may also drive out new investments and new projects. The negative consequences of tax enforcement efforts put local officials in a disadvantage position of regional competitions (Maskin et al., 2000). Local officials strategically choose tax enforcement efforts to strike a careful balance between the benefits and costs of tightening up tax enforcement.

2.3 Testable hypotheses

¹¹ Source: 21st Century Business Herald, February 1, 2013.

Political tournaments based on economic growth simply push local politicians to focus on measurable objectives such as GDP growth driven by investments, especially public sector investments. Huang (1996) documents a political cycle of real investments by showing that a region tends to make more fixed asset investments during the early period of the local politician's term. To make more investments, the local politicians, during the early period of their terms, have stronger incentives to secure enough resources for investments and economy growth. Increasing tax enforcement efforts is a natural choice. In responding to such an exogenous shock in tax enforcement, firms may strategically adjust down their extent of tax avoidance. We thus expect:

Hypothesis 1: all else equal, firms' incentives to engage in tax avoidance are weak during the early period of the municipal political leaders' terms. Especially, the level of tax avoidance is the lowest in the first year of new leaders' terms, and increases over time within their terms.

As we conjecture that a possible political cycle of tax avoidance is driven by local politicians' time-varying tax enforcement efforts resulting from their policy preferences, we expect cross-region variation in corporate tax avoidance. We have

Hypothesis 2: all else equal, the political cycle of tax avoidance tends to be more evident in regions with strong fiscal capacity and poorer public governance.

We also expect the political cycle of corporate tax avoidance to be related to local politicians' personal attribute and career concerns. We expect young politicians and politicians promoted from lower ranks to demonstrate stronger incentives to excel in the political tournament for economic growth. We have

Hypothesis 3: all else equal, the political cycle of corporate tax avoidance tends to be more evident in regions whose local leaders are younger and are promoted from lower ranks.

Moreover, since firms strategically conduct corporate tax avoidance activities to appease local politicians' desires for economic growth, we expect the political cycle of tax avoidance to be related to several firm specific characteristics. We conjecture that firms have stronger incentives to strategically engage in tax avoidance activity when they are small-sized, private,

less important to improving local fiscal conditions, less advanced in technology, and poorly governed. We thus have

Hypothesis 4: all else equal, the political cycle of corporate tax avoidance tends to be more evidence for smaller firms, private firms, firms that are less critical to improving local fiscal conditions, less technologically advanced firms, and finally, firms that are poorly governed.

3. Data and Empirical Design

3.1. Sample

Our initial sample consists of all firm-year observations between 1999 and 2007 in the Chinese Industrial Enterprises Database (CIED) developed and maintained by the National Bureau of Statistics of China (NBS). This database consists of all industrial firms with sales over five million RMB.¹² Our sample ends in 2007 to avoid the effects of the 2008 tax reform in China and the global financial crisis.

For all municipal cities in China, we manually collect information on terms and personal backgrounds of the local political leaders including CCP party secretaries at the city level (our primary focus) and mayors. In the context of the Chinese politics, a party secretary usually is the top political leader in that region. A mayor typically also takes the post of deputy party secretary, and is usually No.2 political figure in a certain municipal city. The information sources are local government websites, news releases, the Renminwang website (www.people.com.cn), and other public announcements. We also collect resumes of district heads for four province-equivalent municipal cities (Beijing, Tianjin, Shanghai, and Chongqing), because these officials have the same political rank as party secretaries at a municipal city level. The fiscal information and GDP information come from the *National Municipal City Prefecture, and County Finance Statistics Compendium (Quanguo Di Shi Xian Caizheng Tongji Ziliao)*, published by the Ministry of Finance annually.

Combining the aforementioned data sources, we impose the following criteria to reach the final sample: (1) there is no missing information on critical parameters including firm

¹² See Cai and Liu (2009) for a detailed description of NBS' CIED database.

headquarter location, total assets, sales, the number of employees, gross value of industrial output, net value of fixed assets, firm ownership type and tax payable; (2) total assets and/or sales are greater than 1 million RMB and the number of employees is greater than 30; (3) current assets, non-current assets, total fixed assets, depreciation expense, tax payable and Industrial value added per capita are greater than zero; (4) accumulated depreciation is greater than annual depreciation expense, and tax payable is less than pre-tax profit; (5) net income deflated by total assets is within three standard deviations; (6) city-level information on GDP and fiscal revenue is not missing.

From this procedure, we obtain 1,337,323 firm-year observations and 3227 municipal city-year observations. Panel A of Table 1 describes sample distribution over years. The final sample covers 31 provinces, and 406 municipal cities or municipal city equivalent administrative units. Due to coding errors of firm headquarters in CIED, firms from Chongqing cannot be identified during 1999-2003. The turnover rate of municipal political leaders indicates the percentage of cities experiencing a turnover of party secretary. In a given year, close to 25% of cities experience turnovers of political leaders.

3.2. Terms of Municipal City Political Leaders

We focus our analysis on party secretaries at the municipal city level. For each local leader, we identify the date of his taking office. If the date is before July 1, then the year is counted as the first year of this politician's term. If the date is after July 1, then the first year of the politician's term is specified as the following year. We construct a dummy variable, *First*, which takes the value of 1 if a certain year is the first year of the local politician's term and 0 otherwise. For each local leader, we also define a variable labeled *Tenure*, which equals 1 for the first year of the leader's term, and accumulates on a yearly basis within the same leader's term.

Panel B of Table 1 shows that majority (70%) of 1101 local political leaders in our sample failed to complete a five-year term. Only 14% served a complete first term, and 15% of local politicians started a second term. The longest service was 11 years. Consistent with Landry et al. (2014), these results indicate a political process unique to the Chinese political

context.

(Place Table 1 Here)

3.3. Measures of Corporate Tax Avoidance

The extent of corporate tax avoidance cannot be directly observed. Following Cai and Liu (2009), we measure the level of tax avoidance by the sensitivity of reported profits to imputed profits based on the national income accounting. The imputed profits are obtained based on the following equation:

$$\text{Imputed Profit}_{i,t} = \text{Output}_{i,t} + \text{Inputs}_{i,t} - \text{Depreciation}_{i,t} - \text{FC}_{i,t} - \text{Wage}_{i,t} - \text{VAT}_{i,t} \quad (1)$$

where *Output* is a firm's gross value of industrial output; *Inputs* measures its intermediate inputs excluding financial charges; *Depreciation* is the annual depreciation expense; *FC* is financial charges including interest payments; *Wage* is wages and salaries; *VAT* is value-added tax paid. We define PRO as the imputed profit in Equation (1) deflated by total assets. A firm's pre-tax profit is defined as the reported profit. We define RPRO as pre-tax profit deflated by total assets.¹³

3.4. Empirical Specifications

To test for the political cycle of corporate tax avoidance, we primarily run the following regression model:

$$\begin{aligned} \text{RPRO}_{i,t} = & (\beta_0 + \beta_1 \text{Tenure} + \beta_2 \text{Tax} + \beta_3 \text{Finance} + \beta_4 \text{Labor} + \beta_5 \text{Rsales} + \beta_6 \text{SOE} + \beta_7 \text{PCHG} \\ & + \beta_8 \text{Mtenure} + \beta_9 \text{GDPG} + \sum_{i=\text{year}} \beta_i \text{Year} + \sum_{i=\text{location}} \beta_i \text{Location}) \text{PRO}_{i,t} + \alpha_1 \text{Tenure} \\ & + \alpha_2 \text{Tax} + \alpha_3 \text{Finance} + \alpha_4 \text{Labor} + \alpha_5 \text{Rsales} + \alpha_6 \text{SOE} + \alpha_7 \text{PCHG} + \alpha_8 \text{Mtenure} \\ & + \alpha_9 \text{GDPG} + \sum_{i=\text{year}} \alpha_i \text{Year} + \sum_{i=\text{location}} \alpha_i \text{Location} \end{aligned} \quad (2)$$

In the model, we use two variables to measure the tenure of local politician, *First* and *Tenure*.

We expect local political leaders to tighten up tax enforcement during the early period of their terms. *First* should have a positive sign (that is, $\beta_1 > 0$), indicating lower tax avoidance. If

¹³ As explained in Cai and Liu (2009), the gap between RPRO and PRO comes from exogenous differences in the generally accepted accounting standards and the national income account system. The two systems have different rules on depreciation, revenue and expenses recognition. Although PRO and RPRO are legitimately different, Cai and Liu (2009) show that under certain conditions, the sensitivity of RPRO to PRO is a good proxy for the extent of tax avoidance.

there is a political cycle of tax avoidance, *Tenure* should have negative a sign (that is, $\beta_1 < 0$), suggesting that level of corporate tax avoidance increases with the local politicians' tenure.

We include a battery of control variables. We define effective tax rate, *TAX*, as income tax payable over reported pre-tax profit. The measure is set to zero for loss-making firms. In our analysis, we exclude observations with *TAX* greater than one. When a firm is more financially constrained, it may have stronger incentives to engage in tax avoidance activity (Edwards et al. 2014). As suggested in Allen et al. (2005), access to bank loans reflects a firm's ability to borrow. We compute the ratio of financial expenses to total assets (*Finance*), and use it as a proxy for external financing constraint. Higher financial expenses may indicate more borrowing, and thus less tight financing constraint, which consequently may reduce the firm's incentive to engage in tax avoidance activity.

We control for firm size, which is measured as the logarithm of the number of employees (*Labor*). While large firms have more resources to conduct tax avoidance activity (e.g. Mills et al. 1998), they tend to draw more attentions and hence may face a higher risk of being detected. How firm size affects corporate tax avoidance is thus an empirical issue. To account for the impact of the differences in the accounting standards and the national income account system, we create a variable, *Rsales*, which is the ratio of sales to industrial output. Dummy variable, *SOE*, takes the value of 1 if a firm is state owned and 0 otherwise. Bradshaw et al. (2013) suggest that managers of SOEs have strong incentives to pay income tax due to career concerns.

We construct three variables to account for municipal city-level characteristics. *GDPG*, the percentage change of GDP of the city, captures the economic condition of a certain city. Poterba (1994) finds that economic downturns and election years significantly affect state taxes and spending. When the economy is growing, the politicians have weaker incentives to tighten tax enforcement. *PCHG*, a dummy variable taking the value of 1 if there is a turnover of governor or provincial party secretary, captures the political uncertainty surrounding a certain municipal city. Facing political uncertainty, a firm may avoid more tax. We also control the tenure of mayor, the No.2 political figure in a municipal city. Moreover, we create

geographical dummies at province level and year dummies.

3.5. Descriptive Statistics

We present summary statistics of key variables in Table 2. All continuous variables are winsorized at 1% and 99%. Panel A of Table 2 reports the statistics of city-level variables. Notably, majority of local political leaders are male (97.9%). The average age of municipal city party secretaries is 51 year old. The mean value of *First* is 0.246, suggesting that 24.6% of local political leaders in our sample are in the first year of their terms. The average local leaders' tenure duration (*Tenure*) is 2.945 years, longer than that of mayors (*Mtenure*), which is 2.672 years. *Local* is a dummy variable that takes the value of 1 if the local political leader's previous job was in the same city and 0 otherwise. We find that 45% of party secretaries at the municipal city level are local. As a dummy variable, *Promoted* takes the value of 1 if a political leader's current rank is higher than that of his previous job, and 0 otherwise. In our sample, 17.8% of local politician are promoted from a lower rank to the current position.¹⁴

Variation in local economic, political, and fiscal conditions is quite substantial. 23% of municipal cities locate in provinces where either governor or provincial party secretary has been replaced. Average GDP growth rate at the municipal city level is 14.7% during our sample period. *FiscalR*, defined as the ratio of total fiscal revenue to GDP, has a mean value of 0.142 and a median value of 0.112. *GCTAX_GDP*, which measures the growth rate of fiscal revenue minus the GDP growth rate, has a mean value of 0.226, suggesting that fiscal revenue grows faster than GDP during our sample period.

Panel B of Table 2 presents the summary statistics of firm level variables. The reported profit (*RPRO*) has a mean of 0.073, far smaller than that of the imputed profit (*PRO*), which stands at 0.248. We construct a variable *GAP* to capture the extent to which the two profit measures differ. *GAP*, defined as *RPRO* minus *PRO* and then deflated by *PRO*, has a mean

¹⁴ Under the Chinese political system, mayors and party secretary have the same political rank but the latter enjoy larger political power. If a mayor is promoted to the party secretary position, it is counted as a promotion.

value of 0.666. Our measure of effective tax rate (*TAX*) has a sample mean of 14.4% and a median of 5.3%, significantly less than the statutory tax rate of 33% during the sample period. On average, our sample firms have 66 million RMB assets, 262 employees, a leverage ratio of 57.5% (total liabilities over total assets), and 7.5% of administrative expenses over total assets (*Mfee*). The financial expenses paid by our sample firms to total assets are on average 1.5%. State-owned enterprises only account for 11.9% of our sample firms, the rest are non SOEs, including collective firms, domestic private firms, Hong Kong or Taiwan invested firms, and foreign firms. *Rsales* has a mean value of 0.964, indicating that 96.4% of total output converts into revenues in the same year. We define *Value* as the natural logarithm of industrial value added per capita. Its mean is 3.843.

Panel C of Table 2 shows the patterns of fiscal revenue and corporate income tax over the terms of the local political leaders. The difference between *RPRO* and *PRO*, *GAP*, exhibits a cyclical pattern. *GAP* stands at -0.707 in the first year of the local leader's term. It decreases over time until the fifth year, suggesting that the extent of tax avoidance increases over time during the first four years of the city leader's term. The growth rate of fiscal revenue from enterprise income tax (*GCTAX_GDP*) reaches the peak in the second year of the city leader's term, and then decreases until the fifth year. These results provide a rough picture of varying tax enforcement by municipal cities in China.

(Place Table 2 Here)

4. Empirical Results

4.1. A Political cycle of corporate tax avoidance

We first test for the political cycle of corporate tax avoidance by estimating Equation (2). Table 3 presents the results, in which robust standard errors clustered by firm are adopted. In Column (1), we include all control variables and their interactions with the imputed profit, *PRO*. The adjusted R^2 is 32%. We use *First* as a measure of local politicians' tenure in Column (2). The interaction of *First* and *PRO* has a significant and positive estimated coefficient of 0.0028, suggesting that the sensitivity of the reported profit to the imputed profit is higher in the first year of the local politician's term. That is, firms tend to conduct

less tax avoidance activity in the first year of the local leader's tenure. This result is consistent with the political economic hypothesis.

In Column (3), *Tenure* is used to measure the local politicians' tenures. We find that the estimated coefficient on the interactive term between *Tenure* and *PRO* is statistically significant at -0.0013. This result suggests that when the local politicians' tenures increase, firms in their jurisdictions tend to conduct more tax avoidance activity. As such, we document a political cycle of corporate tax avoidance.

It is however worth noting that the economic magnitude of either *First* or *Tenure* on tax avoidance is not impressive. Take the results reported in Column (2) as the example. When all independent variables take their means value, the reported profit (*RPRO*) would increase by about 0.5 if the imputed profit increases by 1. The estimated coefficient on *First* is 0.0028, suggesting that the responsiveness of the reported profit to imputed profit increase by 0.0028 in the first year of the local politician's term. This represents a 0.56% increase from other years of the local politician's term.

Our explanation for the not so impressed economic effect is that we examine the universe of political turnovers at the municipal city level in China from 1999 to 2007. Most turnovers may have been anticipated by firms in their jurisdictions and less information is released once they are announced, which likely leads to a smaller economic effect. We defer a more detailed discussion on this point to Section 4.3, where we use a refined sub-sample to re-examine the economic magnitude of the political cycle of tax avoidance.

The results on other variables of interest are also consistent with our conjectures. The estimated coefficient on the interaction of effective tax rate and the imputed profit is negative and statistically significant. When tax rate is higher, a firm is more likely to engage in tax avoidance. Table 3 also shows that a firm's tax avoidance is positively related to external financing constraints measured by *Finance*. The estimated coefficient on *Rsales X PRO* is significantly positive. Political uncertainty of provincial leadership turnover motivates firms to engage more tax avoidance. We also find evidence that corporate tax avoidance increases when the macroeconomic condition is better since the coefficient of the interaction of GDP

growth and the imputed profit is significantly negative.

In summary, the results in Table 3 document a strong negative relation between a local politician's tenure and corporate tax avoidance. We find that the intensity of tax avoidance is substantially lower during the early period of the local politician's term.

4.2. Alternative identification strategy: Regulation change on tax collection in 2002

We have document a political cycle of corporate tax avoidance in China with varying tax enforcement efforts being the driving force. We identify the effect of political process by exploiting the exogenous timing of turnovers of local politicians. The robustness of our empirical results largely depends on whether turnovers of local politicians are indeed exogenous. In this section, we exploit an exogenous change in China's tax regulation in 2002 to identify the causal effect of the political process on tax avoidance.

As we discuss in Section 2.2, in 2002, China restructured the scope of enterprise income tax collection and income sharing ratio between the central government and local governments. Prior to 2002, the central government collected income tax on centrally controlled SOEs and foreign enterprises, and local governments collected income tax on local SOEs, collective firms, and private firms. Beginning 2002, local governments still collect income tax on the existing local firms, but all new firms paid income taxes to the local branches of the state tax bureau directly controlled by the central government. Moreover, the share of enterprise income tax going local governments drops from 60% to 40%. This change in regulation significantly reduces the latitude and flexibility enjoyed by local governments and it presents an exogenous shock for individual firms.

We exploit this exogenous shock to examine the effects of political process on corporate tax avoidance. Panel A of Table 4 compares tax avoidance activity before and after 2002. We expect that after 2002, local politician's incentive to time tax enforcement efforts become weaker, therefore, the political cycle of tax avoidance should be less evident. The results reported in Panel A show exactly what we expect.

Panel B of Table 4 analyzes a sample of local politicians who experienced the regulation change in 2002. For them, the change in tax regime occurred in the middle of their terms. If

the political economic perspective of tax avoidance holds, we expect that this regime change has a larger effect on local politicians who were relatively new to their offices, because they are strongly motivated to tighten up tax enforcement so as to have enough resources for local economic development.

We construct four dummy variables. T1 equals 1 if a municipal party secretary is in the first year of his term in 2002 and 0 otherwise; T2 takes the value of 1 if he is in the second year of his term in 2002; T12 takes the value of 1 if he is either in the first year or in the second year of his term in 2002; and T34 takes the value of 1 if he is either in the third year or fourth year of his term in 2002 and 0 otherwise.

We estimate Equation (2) by replacing *Tenure* with the four dummy variables. Column (1) of Panel B of Table 4 shows that both T1 and T2 have positive impact on corporate tax avoidance measured by the sensitivity of reported profit to the imputed profit, but T34 has much weaker impact than T1 and T2 do. In Column (2), we find that the estimated coefficient on *T12 X PRO* is statistically significant at 0.0161 and the estimated coefficient on *T34 X PRO* is significant at 0.0082. The hypothesis that T12 and T34 have the same effect on corporate tax avoidance is rejected. Notably, as shown in Column (1), the estimated coefficients on *T1 X PRO*, *T2 X PRO*, and *T34 X PRO* decline monotonically, exhibiting a cyclical pattern in tax avoidance. This result again offers a strong support for our political economic hypothesis on corporate tax avoidance.

(Place Table 4 Here)

4.3. Alternative identification strategy: unexpected turnovers of local politicians

The success of our empirical strategy largely hinges on whether turnovers of municipal political leaders are indeed exogenous and out of the control of individual firms. As another alternative identification strategy, we consider turnovers caused by sudden death, “shuanggui” (under investigation) or sudden removals from office. We identify 22 such cases during our sample period. For these 22 episodes, the turnovers of local leaders are unexpected and hence pose exogenous shocks to firms.

We analyze this subsample. For each municipal city that has experienced an unexpected

turnover, we identify a matching city in the same province. The matching city has a similar GDP level and does not experience any turnover of political leader during the period from years t-1 to t+1.¹⁵ We conduct a difference-in-differences (DID) analysis against this sample. Specifically, we construct two dummy variables: *Change*, taking the value of 1 if a municipal city has experienced an unexpected turnover of political leader (either party secretary or mayor in this analysis), and 0 otherwise; *After*, taking the value of 1 in year t and year t+1 and 0 in year t-1. We then estimate the following model:

$$RPRO_{i,t} = (\beta_0 + \beta_1 Change + \beta_2 After + \beta_3 Change \times After + \beta Controls) PRO_{i,t} + \alpha_1 Change + \alpha_2 After + \alpha_3 Change \times After + \alpha Controls \quad (4)$$

The control variables are the same as those in Equation (2). The variable of interest of course is β_3 . If our political economic perspective on corporate tax avoidance holds, we expect β_3 to be positive. We report the regression results in Table 5. As shown in Column (3) and (4) (the firms in Beijing and Shanghai are excluded), the estimated values for β_3 are statistically significant at 0.0568 and 0.0548 respectively. This result suggests that after the sudden change of a local political leader, firms operating in his jurisdiction engage less in tax avoidance.

Unlike the results reported in Table 3, the economic effect of sudden political turnovers on tax avoidance is sizable. Take the results in Column (3) as the example. When all independent variables take their means value, the reported profit (*RPRO*) would increase by roughly 0.46 if the imputed profit increases by 1. β_3 is estimated at 0.0568, suggesting that the responsiveness of the reported profit to imputed profit increase by 0.0568 after the sudden turnover of local political leaders. This represents a 12.3% increase from its previous level.

(Place Table 5 Here)

4.4. Competing Explanations

There are several competing explanations for the identified political cycle of tax avoidance. The political uncertainty hypothesis is one of them. Based on this argument, around turnovers of political leaders, political uncertainty becomes relevant for firms'

¹⁵ Note that year t is referred to as the event year.

strategic tax avoidance decision. As firms are not aware of new leaders' preferences and management style, they become more cautious and engage less in tax avoidance activity. Over time, firms get to know new political leaders better and political uncertainty gradually resolves, firms engage more in tax avoidance. Clearly, this political uncertainty aspect can also explain the documented cycle in corporate tax avoidance.

Political connection is another competing explanation. Politically connected firms are able to enjoy various tax benefits and therefore engage more in tax avoidance activity. After the turnovers, Firms need to rebuild connections to the new leader, which obviously takes time. If the political connection argument holds, we would expect firms to engage less in tax avoidance during the early period of the local politician's term, and gradually improve the level of tax avoidance.

To differentiate our political economic hypothesis from both the political uncertainty and the political connection hypotheses, we examine the behavior of political leaders who were promoted internally. If a political leader had worked in the same city, local firms may know him/her better. All else equal, political uncertainty will be less a concern. If the political uncertainty argument is true, we would expect that the cyclical pattern of tax avoidance to be less evident for firms whose local politicians were promoted internally.

We divide our sample into two sub-samples. One consists of firms whose local politicians were promoted internally; and the other consists of the rest of firms. We examine whether the cyclical pattern of corporate tax avoidance varies across the two sub-samples. As shown in Table 6, we find that the political cycle of tax avoidance is more evident for firms whose leaders were promoted internally. This result is inconsistent with the political uncertainty hypothesis, which suggests that those firms should engage more in tax avoidance activity.

The results reported in Table 6 do not support the political connection hypothesis either, simply because we find that all else equal, firms with local leaders promoted from within engage less in corporate tax avoidance activity.

(Place Table 6 Here)

4.5. Alternative measure of tax avoidance

Throughout our analysis, we use the responsiveness of reported profit to imputed profit as a measure of the extent of tax avoidance. Many studies use effective tax rate to measure tax avoidance (e.g. Dyreng et al. 2008). In Table 7, we use *Tax* as a proxy for tax avoidance. *Tax* is defined as income tax payable deflated by pre-tax profit. In Column (1), the estimated coefficient of *First* is positive and significant at the 1% level, suggesting that effective tax rate is higher in the first year of a local leader's term. Column (2) shows that *Tenure* is negatively associated with effective tax rate. These results offer further evidence on the political cycle of corporate tax avoidance.

(Place Table 7 Here)

5. Cross Section Variation and Further Discussion

5.1. Regional differences – the effects of fiscal capacity and public governance

We hypothesize that the political cycle of tax avoidance is driven by local politicians' time-varying tax enforcement efforts resulting from their policy preferences. We thus expect that in regions with strong fiscal capacity and lower level of public governance, the local politicians have stronger incentives to strategically managing tax enforcement efforts (*Hypothesis 2*).

We measure a region's fiscal capacity using the ratio of fiscal revenue to GDP in year $t-1$ (one year before the new leader took office). The higher the ratio, the weaker the fiscal capacity the city has. We divide our sample into two subsamples by the median ratio, and compare the effects of the political process on tax avoidance across the two subsamples. Columns (1)-(4) of Table 8 report the results. Interestingly, the estimated coefficient on *First X PRO* is significantly negative in cities with weak fiscal capacity, while it is significantly positive in cities with strong fiscal capacity. It seems to suggest that the political cycle of corporate tax avoidance is more evident in regions with strong fiscal capacity. Only in those regions can politicians' time-varying enforcement efforts generate a real impact simply because those regions have potentials for more tax revenue. The results based on *Tenure*, as shown in Columns (3) and (4), also shows that the political cycle of tax avoidance is more

evident in cities with strong fiscal capacity.

Public governance also matters. In better governed regions, local politicians face more checks and balances and have smaller room to time their enforcement efforts. We thus expect the political cycle of tax avoidance to be more evident in poorly governed regions. We use the value of marketization index at the province level to measure the level of public governance.¹⁶ We divide our sample into two equally sized subsamples based on the median value of this index. If a city is from a province with the index value higher (lower) than median, it is classified into the high (low) marketization group. We compare the two groups and report the results in Columns (5)-(8) of Table 8. We find consistent results that the political cycle of tax avoidance is more evident in cities with poor public governance (that is, low marketization score).

(Place Table 8 Here)

5.2. *The Effects of Age and Career Concerns*

We hypothesize that the political cycle of corporate tax avoidance is more pronounced in regions where local leaders have stronger incentives to time the enforcement efforts to pursue their policy goals. We expect young politicians and politicians promoted from lower ranks to demonstrate such incentives (*Hypothesis 3*).

We first examine the age of a local politician. If a local leader is younger than 45 years old, he is regarded as a junior chief. As he still has upward potentials, he may have stronger incentives to time the enforcement efforts. On the contrary, a leader older than 45 years old, that is, a senior chief, may demonstrate weaker incentives.

We also examine the career path of a local leader. If he is promoted from a lower rank, the promotion itself may provide stronger incentive for him/her to excel in the political tournament for economic growth. The political cycle of corporate tax avoidance may be more pronounced in his jurisdiction. In a contrast, if a leader's current post has the same rank as his previous post, he very likely does not have incentives as strong as those promoted leaders.

Table 9 reports our regression results. Columns (1) – (4) show that younger leaders have

¹⁶ See Fan et al. (2010) for detailed description about how the marketization index is compiled.

more influence on the cyclical pattern of tax avoidance. Columns (5) – (8) show that the promoted leaders have stronger influence on the cyclical pattern of corporate tax avoidance than those non promoted leaders do. Take the results in Columns (5) and (6) as the example. The estimated coefficient on *First X PRO* is statistically significantly at 0.0095 the coefficient of the interaction between *First* and the imputed profit (*PRO*) is 0.0095 the promoted group, while it is 0.0024 for the non promoted group. The former has a much larger magnitude than the latter.

(Place Table 9 Here)

5.3. *The effects of firm level characteristics*

While local politicians opportunistically time their tax enforcement efforts to pursue their policy goals, firms adjust their levels of tax avoidance strategically as well. We thus expect firm level characteristics to have strong influence on the political cycle of tax avoidance, especially when they are associated with firms' incentives or capability to strategically engage in tax avoidance activity.

We hypothesize that firms have stronger incentives to engage in tax avoidance activity strategically when they are small, private, and less important to local tax base. SOEs are more transparent than non-SOEs because the local government can appoint or remove the executives of local SOEs. Thus these managers pay more taxes to achieve career promotion (Bradshaw et al., 2013). Meanwhile, the benefits from tax avoidance do not directly go to SOE managers.

We thus expect SOEs demonstrate weaker incentives to engage in tax avoidance activity. Columns (1) and (2) of both panels in Table 10, where *First* and *Tenure* are used respectively to capture a politician's political term, show supporting results. The political cycle of tax avoidance is more pronounced among non-SOEs.

We then examine the effect of a firm's importance to local tax base. When a firm's income tax payable over city-level fiscal revenue is higher than the median value of our sample, we regard the firm as a tax important firm. Otherwise, it is classified as a non tax important firm. We expect tax important firms to demonstrate weaker incentives to

strategically engage in tax avoidance, as they are likely under the scrutiny of local tax authority due to their importance. Columns (3) and (4) of both panels report the results. Indeed, we find that the political cycle of corporate tax avoidance is less pronounced among the tax important firms.

Next, we compare large firms with small firm. We use natural logarithm of the number of employees to measure firm size. When the size of a firm is larger than the sample median, we classify it as large firm; it is a small firm otherwise. Columns (5) and (6) present results. Clearly, the political cycle of corporate tax avoidance is much more evident among small firms.

(Place Table 10 Here)

We also hypothesize that firm level efficiency matters. We use two efficiency measures. The first is total factor productivity (TFP) , defined as the residuals of the following equation:

$$Value_{i,t} = \alpha \log PPE_{i,t} + \beta Labor_{i,t} \quad (3)$$

Value is the natural logarithm of industrial value added per capita; *Labor* is the natural logarithm of the number of employees; and PPE is plant, property, and equipment. We rank a firm's TFP in the year prior to new leader taking office. If a firm has TFP higher than the sample median, we regard it as a high productivity firm. Otherwise, it is classified as a low productivity firm. Our second measure of efficiency is firm level administrative expenses over total assets in the year prior to new leader taking office. We classify high efficiency and low efficiency firms accordingly.

Table 11 presents the results of comparing the high efficiency firms with the low efficiency firms. We find quite robust results that firms with lower efficiency level have stronger incentives to engage in strategic tax avoidance.

(Place Table 11 Here)

6. Conclusion

In this study, we propose a political economic perspective to understand corporate tax avoidance activity. Using data on exogenous turnovers of Chinese municipal political leaders

and the industrial firms in their jurisdictions, we document a political cycle of corporate tax avoidance. Specifically, we find that firms demonstrate weaker incentives to engage in tax avoidance activity during the early period of the local politician' term. They increase tax avoidance over time until the current leader is replaced by a new leader. We argue that local politicians who time their tax enforcement efforts to achieve their preferred policy goals drive the cyclical pattern in tax avoidance. We also find that the magnitude of the political cycle of tax avoidance varies with different region, politician, and firm characteristics. The tax avoidance cycle is more pronounced in municipal cities with stronger tax base and weak public governance. It is more evident in cities whose local politicians are younger and are promoted from a lower rank. Moreover, we find that the political cycle of tax avoidance is more evident among private firms, less fiscally important firms, smaller firms, and less efficient firms. For these firms, the value derived from strategical tax avoidance in response to local politicians' policy preferences is likely much higher.

We find that the effects of political process on corporate tax avoidance are economically meaningful, and the mechanism – entirely different from the political uncertainty and the political connection channels – suggests a new consideration in assessing the impact of politicians' policy preferences on corporate decisions and understanding the determinants of tax avoidance.

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Appendix A Variable Definition

Variable	Definition
<i>Municipal City Level Variables</i>	
First	An indicator variable that takes the value of one if a certain year is the year a new party secretary takes his position and zero otherwise.
Tenure	The number of years that a party secretary is in power.
Mtenure	The number of years that a city mayor is in power.
Male	An indicator variable that takes the value of one if a party secretary is male and zero otherwise.
Age	The age of the party secretary.
Local	An indicator variable that equals one if a party secretary worked in the same city before he takes the current position and zero otherwise.
Promoted	An indicator variable that equals one if a party secretary has a higher political rank than his previous job and zero otherwise
FiscalR	Total local fiscal revenue divided by local GDP.
GDPG	The GDP growth rate in GDP, defined as $[(GDP_t - GDP_{t-1}) / GDP_{t-1}]$.
GCTAX_GDP	The growth rate of enterprise income tax minus the growth rate of GDP.
PCHG	An indicator variable that equals one if there is a turnover of provincial leader and zero otherwise
<i>Firm Level Variables</i>	
Asset	Total Assets (in RMB million).
Leverage	Total liabilities deflated by total assets.
Labor	Natural logarithm of the number of employees.
RPRO	Reported pre-tax profit deflated by total assets.
PRO	Defined as $(Output - Inputs - Depreciation - FC - Wage - VAT) / \text{total assets}$, where <i>Output</i> is a firm's gross value of industrial output; <i>Inputs</i> measures the value of intermediate inputs; <i>Depreciation</i> is the annual depreciation expense; <i>FC</i> is financial charges including interest payments; <i>Wage</i> is salaries; <i>VAT</i> is value-added tax paid. See Cai and Liu (2009).
GAP	Defined as $(RPRO - PRO) / PRO$.
TAX	Income tax payable over reported pre-tax profit; zero for loss-making firms; firm year observations with TAX greater than one are deleted.
Mfee	Administrative expenses divided by total assets
Finance	Financial expenses divided by total assets.
Rsales	Total sales divided by gross value of industrial output.
Value	Natural logarithm of industrial value added per capita.
SOE	An indicator variable that equals one if a firm is state-owned and zero otherwise.
Size	Natural logarithm of total assets.
PPE	Net value of PPE (in RMB million).

Appendix B Unexpected Turnovers Due to Sudden Death or Shuanggui (under investigation) or Dismissal from Duty during 1999-2007

Province	City or District	Name of Local Official	Tenure	Position
Anhui	Huai Bei	Li Zhongjin	2001-2005	Mayor
Beijing	Hai Dian	Zhou Liangluo	2002-2006	District Chief
Beijing	Mi Yun	Zhang Wen	2002-2003	District Chief
Gansu	Lan Zhou	Wang Jun	2000-2004	Party Secretary
Guangdong	Zhao Qing	Deng Yaohua	2003-2004	Mayor
Hebei	Bao Ding	Wang Kunshan	2006	Party Secretary
Heilongjiang	Da Qing	Wang Zhibing	2002-2004	Party Secretary
Heilongjiang	He Gang	Zhang Xingfu	2001-2003	Party Secretary
Heilongjiang	He Gang	Fu Huiting	2004	Party Secretary
Heilongjiang	Ji Xi	Ding Naijin	2001-2003	Party Secretary
Heilongjiang	Ji Xi	Wu Wei	2001-2004	Mayor
Heilongjiang	Ji Mu Si	Deng Hua	2003-2004	Mayor
Heilongjiang	Qi Tai	Sun Shengcang	2003-2006	Mayor
Heinan	Luo He	Liu Bingwang	2000-2006	Party Secretary
Jilin	Ji Lin	Gang Zhanbiao	2001-2003	Mayor
Jiangxi	Shang Rao	Yu Xiaoping	2003	Party Secretary
Shandong	Qing Dao	Du Shicheng	2003-2006	Party Secretary
Shanghai	Bao Shan	Qin Yu	2006	District Chief
Shanghai	Chang Ning	Chen Chaoxian	2003-2006	District Chief
Sichuan	Mian Yang	Huang Xuejiu	2004	Party Secretary
Sichuan	Nei Jiang	Yan Liangzhong	2001-2003	Mayor
Zhejiang	Hu Zhou	Sun Wenyou	2005	Party Secretary

Table 1 Sample Distribution

This table presents the distribution of our sample. Panel A reports the number of sample firms by year. Due to coding errors of firm headquarter in CIED, firms from Chongqing were unidentifiable from 1999 to 2003. The turnover rate indicates the percentage of municipal cities experiencing a turnover of party secretary. Panel B reports the distribution of party secretary's tenure.

Panel A: Yearly distribution of sample firms					
Year	Firms	%	Provinces	Municipal Cities	Turnover Rate
1999	90,403	6.76%	30	283	19.43%
2000	95,078	7.11%	30	313	21.08%
2001	103,146	7.71%	30	325	31.08%
2002	109,973	8.22%	30	348	26.44%
2003	127,457	9.53%	30	364	39.84%
2004	180,959	13.53%	31	395	17.72%
2005	186,483	13.94%	31	398	18.59%
2006	208,549	15.59%	31	399	24.06%
2007	235,275	17.59%	31	402	24.06%
Full sample	1,337,323	100%	31	406	24.60%

Panel B Distribution of party secretary's tenure		
Tenure	N	%
1	165	14.99%
2	208	18.89%
3	195	17.71%
4	210	19.07%
5	154	13.99%
6	84	7.63%
7	46	4.18%
8	23	2.09%
9	10	0.91%
10	3	0.27%
11	3	0.27%
Total Officials	1101	100%

Table 2 Summary Statistics

This table reports summary statistics of main variables used in our study. Panel A presents summary statistics of variables at municipal city level. Panel B presents summary statistics of firm level variables. Panel C shows the distribution of the difference between reported profit and the imputed profit, fiscal revenue, and the difference between the growth rate of enterprise income tax and GDP growth rate over the tenure of a certain party secretary. Detailed variable definitions are provided in Appendix A. All continuous variables are winsorized at the 1 and 99 percent levels.

Panel A: Municipal City and Local Official Characteristics								
Variable	N	Mean	Std.	Min.	P25	Median	P75	Max.
Male	3227	0.979	0.144	0	1	1	1	1
Age	3157	50.915	4.239	32	48	51	54	61
First	3227	0.246	0.431	0	0	0	0	1
Tenure	3227	2.945	1.771	1	2	3	4	11
Local	3227	0.45	0.498	0	0	0	1	1
Promoted	3227	0.178	0.383	0	0	0	0	1
Mtenure	3227	2.672	1.641	1	1	2	4	11
PCHG	3227	0.229	0.420	0	0	0	0	1
GDPG	3227	0.147	0.092	-0.259	0.095	0.143	0.193	0.555
FiscalR	3227	0.142	0.11	0.004	0.082	0.113	0.159	1.385
GCTAX_GDP	3167	0.226	1.389	-1.111	-0.215	0.08	0.366	29.293

Panel B: Firm level variables								
Variables	N	Mean	Std.	Min.	P25	Median	P75	Max.
RPRO	1337323	0.073	0.128	-0.184	0.005	0.035	0.103	0.874
PRO	1337323	0.248	0.418	-0.344	0.007	0.111	0.329	2.569
GAP	1336901	-0.666	2.036	-11.767	-0.995	-0.803	-0.345	10.846
Asset(million)	1337323	65.948	175.104	1.473	7.2	16.13	44.274	1487.162
Leverage	1337323	0.575	0.275	0.01	0.378	0.59	0.777	1.534
TAX	1337323	0.144	0.17	0	0	0.053	0.32	0.791
Labor	1337323	4.952	0.999	3.401	4.19	4.787	5.557	8.333
Finance	1337323	0.015	0.021	-0.009	0.001	0.009	0.022	0.144
Rsales	1337323	0.964	0.216	0.257	0.9	0.982	1	3.105
SOE	1337323	0.119	0.324	0	0	0	0	1
Mfee	1337323	0.075	0.077	0	0.027	0.053	0.095	0.534
Value	1337323	3.843	1.055	0.225	3.172	3.807	4.511	6.963

Panel C Distribution over a party secretary's tenure

Tenure Year	N	GAP	FiscalR	GCTAX_GDP
1st	795	-0.707	0.132	0.201
2nd	752	-0.715	0.147	0.261
3rd	626	-0.716	0.144	0.249
4th	469	-0.722	0.149	0.229
5th	292	-0.706	0.142	0.261
6th	153	-0.745	0.140	0.111
7th	81	-0.708	0.140	0.179
8th	36	-0.802	0.155	-0.008
9th	14	-0.811	0.164	0.137
10th	6	-0.706	0.115	0.212
11th	3	-0.775	0.114	0.036

Table 3 The Political Cycle of Corporate Tax Avoidance in China

The dependent variable is reported profit scaled by total assets (RPRO). The definitions of all variables are in Appendix A. All continuous variables are winsorized at the 1 and 99 percent levels. Year fixed effects, province fixed effects, and their interactions with PRO are included in all regressions. Robust standard errors are clustered by firm and reported in parenthesis. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

VARIABLES	Dependent variable: RPRO		
	(1)	(2)	(3)
First		0.0037*** (16.77)	
First x PRO		0.0028*** (3.00)	
Tenure			-0.0008*** (-13.52)
Tenure x PRO			-0.0013*** (-5.57)
PRO	-0.0743*** (-11.25)	-0.0748*** (-11.33)	-0.0713*** (-10.75)
Tax x PRO	-0.0675*** (-27.40)	-0.0674*** (-27.37)	-0.0675*** (-27.39)
Finance x PRO	0.3123*** (19.47)	0.3129*** (19.51)	0.3135*** (19.54)
Labor x PRO	0.0099*** (19.01)	0.0099*** (19.01)	0.0099*** (18.93)
Rsales x PRO	0.1660*** (80.73)	0.1660*** (80.71)	0.1660*** (80.74)
SOE x PRO	-0.0016 (-0.72)	-0.0016 (-0.73)	-0.0016 (-0.75)
PCHG x PRO	-0.0172*** (-16.32)	-0.0174*** (-16.58)	-0.0173*** (-16.39)
Mtenure x PRO	0.0000 (0.06)	0.0001 (0.65)	0.0004 (1.58)
GDPG x PRO	-0.0193*** (-2.81)	-0.0191*** (-2.79)	-0.0179*** (-2.61)
Tax	0.0619*** (98.03)	0.0618*** (97.88)	0.0618*** (97.83)
Finance	0.2160*** (26.66)	0.2167*** (26.75)	0.2164*** (26.71)
Labor	-0.0005*** (-4.15)	-0.0005*** (-4.15)	-0.0005*** (-4.21)
Rsales	0.0317*** (71.79)	0.0317*** (71.80)	0.0317*** (71.71)
SOE	-0.0322*** (-99.85)	-0.0321*** (-99.76)	-0.0321*** (-99.68)
PCHG	-0.0053*** (-18.54)	-0.0053*** (-18.28)	-0.0051*** (-17.51)
Mtenure	0.0001** (2.22)	0.0003*** (5.10)	0.0004*** (6.23)
GDPG	0.0270*** (16.05)	0.0269*** (16.01)	0.0268*** (15.98)
Constant	-0.0214*** (-16.85)	-0.0221*** (-17.46)	-0.0192*** (-14.97)
Observations	1,337,323	1,337,323	1,337,323
Adjusted R ²	0.32	0.32	0.32

Table 4 A Natural Experiment: The Tax Collection Change in 2002

Panel A shows the relation between corporate tax avoidance and the tenure of local government officials before the tax collection change in 2002 and after for the whole sample. Panel B presents the results based on a subsample in which a local government official experienced the 2002 change during his tenure. T1 is a dummy variable that equals one if a party secretary is in the first year of his tenure in 2002 and zero otherwise. T2 is a dummy variable that equals one if he is in the second year and zero otherwise. T12 is a dummy variable that equals one if he is either in the first year or in the second year and zero otherwise; T34 is defined similarly. Robust standard errors are clustered by firm and in parenthesis. ***, ** and * indicate significance at the 1, 5 and 10% levels.

Panel A: Corporate Tax Avoidance in Different Periods				
Dependent variable: RPRO	YEAR>2002		YEAR<=2002	
VARIABLES	(1)	(2)	(3)	(4)
First	0.0039*** (13.56)		0.0009*** (3.12)	
First x PRO	0.0024** (2.23)		0.0068*** (4.64)	
Tenure		-0.0011*** (-13.88)		0.0000 (0.63)
Tenure x PRO		-0.0014*** (-4.95)		-0.0008** (-2.51)
PRO	-0.0951*** (-12.28)	-0.0914*** (-11.78)	-0.0106 (-1.01)	-0.0084 (-0.79)
Difference tests:	(1)-(3)	(2)-(4)		
P-value	0.016	0.195		
Observations	938723	938723	398600	398600
Adjusted R ²	0.31	0.31	0.3	0.3

Panel B: Impact on Chiefs who experienced tax collection change in 2002

Dependent variable: RPRO		
VARIABLES	(1)	(2)
T1	0.0076*** (14.24)	
T1 x PRO	0.0171*** (7.78)	
T2	0.0057*** (11.52)	
T2 x PRO	0.0153*** (7.70)	
T12		0.0066*** (13.79)
T12 x PRO		0.0161*** (8.69)
T34	0.0048*** (10.90)	0.0048*** (11.02)
T34 x PRO	0.0081*** (4.92)	0.0082*** (4.96)
PRO	-0.0400*** (-4.01)	-0.0405*** (-4.06)
Test T1 x PRO = T2 x PRO (p value)	0.342	
Test T1 x PRO = T34 x PRO (p value)	0.000	
Test T2 x PRO = T34 x PRO (p value)	0.000	
Test T12 x PRO = T34 x PRO (p value)		0.000
Observations	505295	505295
Adjusted R-squared	0.29	0.29

Table 5 Unexpected Official Turnovers and Corporate Tax Avoidance

This table reports results of differences-in-differences design for 22 unexpected official turnovers due to sudden death, under investigation or dismissal from duty. The year of an unexpected turnover is defined as year t . For each city that experienced an unexpected turnover, we identify a matching city in the same province, with similar GDP level, and whose political leader experiences no turnover during the period of $(t-1, t+1)$. Change equals to one if a city experiences unexpected turnover of political leader and zero otherwise; After equals to one if it is the event year or the following year and zero otherwise. The definitions of all variables are in Appendix A. A constant term, year fixed effects, province fixed effects, and their interactions with PRO are included in all regressions. Robust standard errors are clustered by firm and reported in parenthesis. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

VARIABLES	All Unexpected Turnovers			Excluding Beijing and Shanghai
	(1)	(2)	(3)	(4)
Change	0.0007 (0.62)		0.0057*** (4.02)	0.0027* (1.76)
Change x PRO	-0.0186*** (-5.35)		-0.0289*** (-6.06)	-0.0261*** (-5.30)
After		-0.0045*** (-3.77)	-0.0074*** (-3.47)	-0.0137*** (-6.01)
After x PRO		-0.0219*** (-5.54)	-0.0442*** (-5.97)	-0.0424*** (-5.65)
Change x After			-0.0018 (-0.69)	0.0015 (0.56)
Change x After x PRO			0.0568*** (6.25)	0.0548*** (5.91)
PRO	-0.1006*** (-9.60)	-0.1000*** (-9.57)	-0.1016*** (-9.72)	-0.0575*** (-6.01)
Tax x PRO	-0.0740*** (-13.64)	-0.0732*** (-13.50)	-0.0735*** (-13.56)	-0.0656*** (-11.26)
Finance x PRO	0.2277*** (6.67)	0.2306*** (6.77)	0.2278*** (6.68)	0.1597*** (4.62)
Labor x PRO	0.0131*** (11.13)	0.0129*** (11.01)	0.0130*** (11.06)	0.0123*** (9.96)
Rsales x PRO	0.1714*** (36.99)	0.1708*** (36.80)	0.1707*** (36.77)	0.1692*** (34.06)
SOE x PRO	-0.0127*** (-2.63)	-0.0133*** (-2.75)	-0.0134*** (-2.74)	-0.0157*** (-2.89)
GDPG x PRO	-0.0363** (-2.29)	-0.0349** (-2.20)	-0.0288* (-1.81)	-0.0104 (-0.57)
Tax	0.0501*** (33.81)	0.0500*** (33.68)	0.0501*** (33.75)	0.0539*** (31.76)
Finance	0.4126*** (21.00)	0.4125*** (21.00)	0.4140*** (21.07)	0.5359*** (26.22)
Labor	-0.0024*** (-7.99)	-0.0023*** (-7.93)	-0.0024*** (-7.99)	-0.0015*** (-4.59)
Rsales	0.0304*** (33.04)	0.0304*** (33.09)	0.0304*** (33.08)	0.0273*** (29.17)
SOE	-0.0311*** (-46.10)	-0.0311*** (-46.07)	-0.0311*** (-46.04)	-0.0328*** (-43.99)
GDPG	0.0186*** (5.13)	0.0178*** (4.93)	0.0182*** (5.02)	-0.0116** (-2.41)
Observations	267739	267739	267739	218612
Adjusted R ²	0.36	0.36	0.36	0.39

Table 6 The Political Cycle of Corporate Tax Avoidance: Impact of the Origins of Local Politician

This table presents the results of how the background of local officials affects the relation between corporate tax avoidance and the tenure of local party secretaries. A local official is labeled “local” if he is promoted from within, and “outside” if he worked in another city before taking the current position. The definitions of all variables are in Appendix A. A constant term, year fixed effects, province fixed effects, control variables and their interactions with PRO are included in all regressions but untabulated for brevity. Robust standard errors are clustered by firm and reported in parenthesis. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

VARIABLES	Dependent variable: RPRO			
	Local (1)	Outside (2)	Local (3)	Outside (4)
First	0.0030*** (8.48)	0.0036*** (12.03)		
First x PRO	0.0036** (2.51)	-0.0008 (-0.57)		
Tenure			-0.0009*** (-7.16)	-0.0006*** (-8.68)
Tenure x PRO			-0.0051*** (-11.90)	0.0024*** (7.76)
PRO	-0.0367*** (-2.83)	-0.0884*** (-11.74)	-0.0325** (-2.51)	-0.0966*** (-12.69)
Test difference: P-value		(1) - (2) 0.029		(3) - (4) 0.000
Observations	580728	756595	580728	756595
Adjusted R ²	0.34	0.30	0.34	0.30

Table 7 Alternative measure of tax avoidance

The dependent variables are effective tax rate (TAX), defined as income tax payable deflated by pre-tax profit. TAX is zero for loss firms. We exclude the observations of Tax greater than 1. Y2002R is an indicator variable that equals one if it is after 2002 and zero otherwise. The definitions of all variables are in Appendix A. Year fixed effects, province fixed effects, and their interactions with PRO are included in all regressions. Robust standard errors are clustered by firm and reported in parenthesis. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

VARIABLES	Dependent variable: TAX			
	(1)	(2)	(3)	(4)
First	0.0028*** (8.77)		-0.0059*** (-8.20)	
Tenure		-0.0011*** (-11.60)		0.0003** (1.99)
First x Y2002R			0.0109*** (13.40)	
Tenure x Y2002R				-0.0020*** (-9.84)
SOE			-0.0124*** (-16.57)	-0.0123*** (-16.53)
Size	-0.0098*** (-48.27)	-0.0099*** (-48.31)	-0.0096*** (-46.77)	-0.0096*** (-46.74)
Leverage	-0.0208*** (-30.85)	-0.0207*** (-30.78)	-0.0194*** (-28.47)	-0.0193*** (-28.35)
Finance	0.0237*** (2.67)	0.0236*** (2.66)	0.0121 (1.37)	0.0122 (1.37)
Labor	0.0117*** (41.79)	0.0117*** (41.77)	0.0122*** (43.49)	0.0121*** (43.36)
Rsales	0.0136*** (15.81)	0.0135*** (15.72)	0.0142*** (16.56)	0.0141*** (16.46)
PCHG	0.0018*** (4.61)	0.0020*** (5.33)	0.0015*** (3.99)	0.0019*** (4.90)
Mtenure	0.0025*** (26.02)	0.0027*** (27.34)	0.0025*** (25.68)	0.0027*** (27.14)
GDPG	-0.0029 (-1.13)	-0.0028 (-1.11)	-0.0041 (-1.63)	-0.0036 (-1.42)
Constant	0.2092*** (69.33)	0.2129*** (70.31)	0.2090*** (69.25)	0.2067*** (67.50)
Observations	1337323	1337323	1337323	1337323
Adjusted R ²	0.06	0.06	0.06	0.06

Table 8 The Political Cycle of Corporate Tax Avoidance: Impact of Local Fiscal Capacity and Public Governance

This table shows how a municipal city's fiscal situation and marketization level affect the relation between corporate tax avoidance activity and local government official's (part secretary) tenure. In Columns (1)-(4), we use the ratio of a city's fiscal revenue over local GDP before the political turnover to sort the sample into two subsamples. If the ratio is higher than the median value, a city is viewed as a low capacity city, and vice versa. In Columns (5)-(8), we use the development level of marketization to sort our sample into two subsamples. If a city is from a province with a marketization index value higher than the median, it is viewed as a high marketization firm, and vice versa. All variable definitions are in Appendix A. A constant term, year fixed effects, province fixed effects, control variables and their interactions with PRO are included in all regressions but not reported for brevity. Robust standard errors are clustered by firm and reported in parenthesis. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

VARIABLES	Dependent variable: RPRO							
	Low Capacity (1)	High Capacity (2)	Low Capacity (3)	High Capacity (4)	High Marketization (5)	Low Marketization (6)	High Marketization (7)	Low Marketization (8)
First	0.0044*** (14.80)	0.0031*** (9.21)			0.0051*** (19.68)	-0.0002 (-0.55)		
First x PRO	-0.0032** (-2.21)	0.0060*** (4.83)			-0.0005 (-0.48)	0.0134*** (8.39)		
Tenure			-0.0006*** (-7.19)	-0.0017*** (-19.96)			-0.0012*** (-17.22)	0.0005*** (3.89)
Tenure x PRO			0.0003 (0.78)	-0.0016*** (-5.02)			-0.0009*** (-3.16)	-0.0027*** (-6.03)
PRO	-0.0820*** (-10.55)	-0.0942 (-1.02)	-0.0835*** (-10.73)	-0.0887 (-0.96)	-0.0797*** (-11.00)	-0.0625*** (-3.60)	-0.0782*** (-10.75)	-0.0503*** (-2.91)
Difference Test (p value)	0.000		0.000		0.000		0.001	
Observations	671859	665464	671859	665464	999471	337758	999471	337758
Adjusted R ²	0.27	0.36	0.27	0.36	0.33	0.29	0.33	0.29

Table 9 Political Cycle of Tax Avoidance: Impact of Age and Career Concerns

This table presents the impact of local officials' promotion incentives on the relation between their tenures and corporate tax avoidance activity in their jurisdictions. A party secretary below 45 years old is viewed as a young chief who has strong incentives to seek further promotion. Those with age over 45 are viewed senior chiefs. Columns (1)-(4) present the results of comparing young party secretaries and senior secretaries. A party secretary is defined as "promoted" if he or she holds a political rank higher than that of his previous job. Columns (5)-(8) report the results of comparing those promoted party secretaries with those viewed as "non-promoted". The definitions of all variables are in Appendix A. A constant term, year fixed effects, province fixed effects, control variables and their interactions with PRO are included in all regressions but untabulated for brevity. Robust standard errors are clustered by firm and reported in parenthesis. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

VARIABLES	Dependent variable: RPRO							
	Young Chief (1)	Senior Chief (2)	Young Chief (3)	Senior Chief (4)	Promoted (5)	Non Promoted (6)	Promoted (7)	Non Promoted (8)
First	0.0052*** (7.87)	0.0039*** (16.55)			0.0008 (1.08)	0.0042*** (17.99)		
First x PRO	0.0131*** (5.08)	0.0023** (2.34)			0.0095*** (3.21)	0.0024** (2.49)		
Tenure			-0.0015*** (-8.67)	-0.0008*** (-12.57)			-0.0009*** (-4.79)	-0.0009*** (-13.58)
Tenure x PRO			-0.0056*** (-8.73)	-0.0009*** (-3.46)			-0.0051*** (-7.72)	-0.0007*** (-2.77)
PRO	-0.0244 (-1.29)	-0.0839*** (-11.91)	-0.0156 (-0.83)	-0.0811*** (-11.46)	-0.0747*** (-9.80)	-0.0541*** (-4.04)	-0.0460*** (-3.16)	-0.0799*** (-10.86)
Difference Test (p value)	0.000		0.000		0.000		0.024	
Observations	174030	1151563	174030	1151563	139733	1197590	139733	1197590
Adjusted R ²	0.33	0.32	0.33	0.32	0.33	0.32	0.33	0.32

Table 10 The Effects of Firm-Level Characteristics

This table investigates how firm ownership (SOE vs. non SOE), a firm's importance to local government measured by the ratio of tax payable to local fiscal revenue, and firm size affect the relation between corporate tax avoidance activity and the tenure of local officials. If the ratio of tax payable to local fiscal revenue is higher than the median, we treat the firm as an important firm and unimportant otherwise. If a firm has total assets larger than the median, the firm is viewed as a large firm. The definitions of all variables are in Appendix A. A constant term, year fixed effects, province fixed effects, control variables and their interactions with PRO are included in all regressions but untabulated for brevity. Robust standard errors are clustered by firm and reported in parenthesis. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

Panel A: Party Secretary's Tenure Measured by First						
VARIABLES	Dependent variable: RPRO					
	SOEs	Non SOEs	Important Firms	Unimportant Firms	Large Firms	Small Firms
	(1)	(2)	(3)	(4)	(5)	(6)
First	-0.0002 (-0.57)	0.0042*** (17.03)	0.0050*** (11.57)	0.0040*** (9.05)	0.0027*** (9.89)	0.0051*** (14.24)
First x PRO	-0.0059 (-1.62)	0.0026*** (2.75)	-0.0042** (-2.30)	0.0077*** (4.37)	-0.0043** (-2.32)	0.0048*** (4.41)
PRO	-0.0434** (-2.48)	-0.0688*** (-9.68)	-0.0969*** (-6.69)	-0.0907*** (-5.27)	0.0165 (1.34)	-0.0692*** (-9.09)
Difference Test (p value)		0.023		0.000		0.000
Observations	159180	1178143	347621	321699	667718	669605
Adjusted R ²	0.23	0.30	0.32	0.33	0.32	0.31
Panel B: Party Secretary's Tenure Measured by Tenure						
VARIABLES	Dependent variable: RPRO					
	SOEs	Non SOEs	Important	Non Important	Large Firms	Small Firms
	(1)	(2)	(3)	(4)	(5)	(6)
Tenure	0.0000 (0.14)	-0.0009*** (-13.82)	-0.0010*** (-8.54)	-0.0010*** (-8.95)	-0.0007*** (-8.78)	-0.0010*** (-10.69)
Tenure x PRO	0.0023** (2.18)	-0.0013*** (-5.30)	-0.0010** (-2.21)	-0.0022*** (-4.93)	-0.0007 (-1.40)	-0.0014*** (-5.19)
PRO	-0.0503*** (-2.83)	-0.0655*** (-9.18)	-0.0955*** (-6.57)	-0.0810*** (-4.68)	0.0166 (1.34)	-0.0651*** (-8.51)
Difference Test (p value)		0.001		0.061		0.159
Observations	159180	1178143	347621	321699	667718	669605
Adjusted R ²	0.23	0.30	0.32	0.33	0.32	0.31

Table 11 Impact of Productivity (TFP) and Administrative Expenses

This table presents results showing how total factor productivity and firm-level administrative expenses affect the relation between tax avoidance activity and local officials' tenure. Columns (1)-(4) report the results based on total factor productivity (TFP), where TFP is the residuals from Equation (3): $Value_{i,t} = \alpha LogPPE_{i,t} + \beta Labor_{i,t}$. If a firm's TFP is higher than the median of all sample observations, it is labeled high TFP firm. It is labeled low TFP firm otherwise. Columns (5)-(8) report the results based on the ratio of administrative expenses to total assets (Mfee). If a firm's Mfee is lower (higher) than the median of all sample observations, it is labeled a low (high) Mfee firm. The definitions of all variables are in Appendix A. A constant term, year fixed effects, province fixed effects, control variables and their interactions with PRO are included in all regressions but untabulated for brevity. Robust standard errors are clustered by firm and reported in parenthesis. ***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

VARIABLES	Dependent variable: RPRO							
	Low TFP (1)	High TFP (2)	Low TFP (3)	High TFP (4)	High Mfee (5)	Low Mfee (6)	High Mfee (7)	Low Mfee (8)
First	0.0035*** (10.39)	0.0056*** (11.29)			0.0044*** (13.03)	0.0028*** (9.90)		
First x PRO	0.0083*** (3.67)	-0.0023 (-1.50)			0.0043*** (3.54)	0.0006 (0.45)		
Tenure			-0.0009*** (-10.54)	-0.0013*** (-9.62)			-0.0009*** (-10.43)	-0.0007*** (-9.46)
Tenure x PRO			-0.0036*** (-6.48)	-0.0006 (-1.61)			-0.0019*** (-6.30)	-0.0004 (-0.98)
PRO	-0.0861*** (-6.05)	-0.0946*** (-6.62)	-0.0741*** (-5.18)	-0.0932*** (-6.49)	-0.0747*** (-9.80)	-0.0541*** (-4.04)	-0.0694*** (-9.06)	-0.0535*** (-3.99)
Difference Test (p value)	0.000		0.000		0.050		0.010	
Observations	364057	374077	364057	374077	669007	668316	669007	668316
Adjusted R ²	0.29	0.32	0.29	0.32	0.30	0.34	0.30	0.34