

Can Governments Harvest Connections with Firms? Evidence from China

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Abstract

It is well-known that governments sometimes favor connected firms. This paper provides evidence on the reverse - firms providing favors to governments in a reciprocal relationship - exploiting a natural experiment from China. In October 2001, the tax revenue sharing rule between central and local governments was unexpectedly reformed: the higher the local tax revenue in 2001, the higher the share that local governments would get post-2001. From a newly collected dataset, I find that before the reform the governments that granted more favors to firms - access to credit and tax deductions - were able to mobilize more assistance from firms in order to raise the tax revenue in 2001. Furthermore, this reciprocation is not an institutional relationship, but hinges on a repeated interaction between firms and local leaders. Exploring the variation in leadership turnover, I find that firms who had previously received government favors provided no assistance to leaders who would soon leave office. These results are consistent with a theory of reciprocal relationships between governments and firms. My findings not only suggest that governments and firms can form dynamic relationships to exchange favors intertemporally, but also shed light on the government-business relationship in China.

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1. Introduction

The rent-seeking behavior of politically connected firms and its associated costs have long been recognized by economists. Firms' rents are often generated through preferential treatment by governments, such as, better access to credit or lighter taxation (Fisman (2001), Johnson and Mitton (2003), Dinç (2005), Khwaja and Mian (2008), Ferguson and Voth (2008), Chen (2015)).¹ The existing literature has mainly focused on the favors that firms receive, but much less attentions has been given to what politicians gain in return. Beyond personal rents, such as corruption, there are also other forms of returns. For example, when governments are in need, firms that have received preferential treatments can take actions to help achieve certain policy objectives. The literature on developmental states shows that the assistance from firms to governments is widely observed in developing countries, including industrial development, increasing business investment, the absorption of unemployment and so on. (Evans (1995) and Woo-Cumings (1999)).

This study focuses on what governments get from firms. In the process, it shows that the government-firm relationship is dynamic and reciprocal. In other words, their reciprocal relationship is sustained by the future value of the relationship. Using a unique reform in China which enables me to quantify the value of firms' assistance to governments, I examine the question: do governments gain from firms' assistance through a reciprocal relationship?

To examine how governments can mobilize the informal assistance of firms is a challenging task. Not only are these returns being hard to observe and quantify, but also it is equally challenging to assess whether governments have any incentive to seek this assistance. Therefore, to test this question, ideally, I would focus on governments that share similar political institutions and face a common shock that requires governments to seek assistance from firms. A tax-sharing reform in 2001 between central and local governments in China provides a unique set-up to examine this subject. First, the reform incentivized local governments to raise tax revenue, a quantifiable response that allows me to compare one with another, and its design leaves room for assistance from firms. Second, the reform was announced unexpectedly, which allows me to explore the pre-existing connections between governments and firms. Finally, exploring the variation within a country helps me to hold the underlying political institutions constant.

The central-local tax-sharing reform in question was announced in October 2001 by the central government, which specified that from 2002 local governments were required to share

¹Furthermore, these rents are highly likely to cause efficiency loss and other social cost; for example, the efficiency losses of channeling business to less productive firms (Cingano and Pinotti (2013) and Amore and Bennedsen (2013)) and other social costs, such as workplace safety (Fisman and Wang (2015), Jia and Nie (2015))

their corporate income tax with the central government.² In order to avoid a negative shock to local fiscal budgets, the 2001 local corporate income tax was designed as a benchmark — no local governments will ever receive less corporate income tax revenue than the revenue collected in 2001. That is, the higher the 2001 tax revenue, the more tax could be retained at the local level in future years. This design incentivized local governments to raise the benchmark (the 2001 corporate income tax revenue) during the 2-month window period after the announcement.³ In both November and December 2001, abnormal tax growth was widely observed among local governments.⁴

How was this jump in revenue attained? One important issue to note is that tax revenue needs to be remitted to the Treasury before being redistributed back to local governments. Therefore, the increase in tax revenue could not simply be a fake number. After careful auditing work done by central government, a government paper explicitly stated that local governments raised the 2001 tax revenue through two channels: (1) relabeling other tax revenues and (2) financing with the assistance of firms. In this paper, I first measure firms' assistance and then explore the determinants that explain the variation in firms' assistance.

In order to assist local governments, firms bear the cost of generating a large cash flow in a short time, as well as the risk of being punished by the central government. Given the risks and urgency, we hypothesize that governments are most likely to reach for assistance from firms which they have favored in the past. To test this, I trace the governmental favors to local firms before the reform and then to explore whether governments that granted favors to firms can mobilize firms' assistance in raising the 2001 tax revenue.

The first empirical challenge is to quantify the level of firms' assistance in raising the 2001 tax revenue. In order to do so, I assemble a panel dataset of the corporate income tax revenues between 1998 and 2003 from nearly 500 county governments from various provincial, prefectural and county fiscal or tax yearbooks. On average, the 2001 corporate income tax nearly doubled what it would have been if it had maintained its time trend. However, a great variation was found between county governments, reaching in some instances about 30

²Here, the term 'local governments' means all non-central governments, including provincial, prefectural and county governments. My focus in this paper is county governments where most of the variation is coming from.

³Two incentives for local governments to raise benchmarks are discussed in the section of institutional background and here is the summary: first, the fiscal revenue is a main resource for local economic development, a dimension in which local governments are made to compete against each other for their leaders' career advancement; second, county leaders need to show that they are aligned with those in the prefectural or provincial governments who all intend to keep tax at the local level and also evaluate the county leaders' performance.

⁴A government paper published on January 1st, 2002 stated that corporate income tax increased nationwide by 139.4% for November and 187.1% for December, compared with the tax revenue for the same months in 2000.

times the counterfactual.⁵

The next empirical challenge is to measure the governments' favors towards local firms. Guided by the literature, I focus on two of the most common favors that governments grant to firms in the Chinese context: access to credit and tax deductions. First, preferential access to credit is an important favor from local governments. This is because all banks in China are state-owned and capital mobility across regions is low, therefore it gives local governments great influence over all decisions to grant loans. Furthermore, many evidences have pointed out that how loans commonly discriminate in favor of state-related firms (Boyreau-Debray and Wei (2005), Li, Meng, Wang and Zhou (2008), Firth, Lin, Liu and Wong (2009)). In addition, others discuss how private firms rely significantly less on loans and more on retained earnings and private lending (Allen, Qian and Qian (2005), Dollar and Wei (2007), Riedel and Gao (2007)). Given the data limitation I use total liability normalized by assets, called debt leverage, to proxy for access to credit. Since the composition of the liability for state-related firms is more likely to be favored loans from the governments, I use debt leverage to proxy a government favor to state-related firms.⁶

The second favor that I consider is preferential corporate income tax deduction. Chinese corporate income tax codes for domestic firms are identical nationwide. But, given its complex nature, the tax code is often manipulated by local governments, which offer tax deductions. Bai, Hsieh and (2014) offers a lively example and discussion. Accordingly, the effective tax rate, defined as the corporate income tax paid divided by the firms' reported tax base, is adopted as a proxy for tax deductions. The tax deduction is a sensitive favor for private firms, but it is not so much sensitive for state-related firms because both of their tax and revenue are part of local governments' fiscal budgets. To summarize, I have two measures for favors: (1) debt-leverage of state-related firms and (2) effective tax rate of private firms. Both measures for favors are constructed using data from China's Annual Surveys of Industrial Production and taking the average for 1999 to 2000, the years before the reform, to represent previous government favors to firms.

I take the measure of firms' assistance to examine whether the governments that granted more favors to firms before the reform - access to credit and tax deductions - were able to mobilize more assistance from firms in order to raise the tax revenue in 2001. In a cross-sectional setup, I found that in counties where state-related firms had greater access to credit, county governments can mobilize more assistance from them in raising the 2001 benchmark.

⁵Aba county in Sichuan had the highest response in my sample, reaching almost 30 times what it should have been if it had stayed on its own trend.

⁶State-related firms are defined to include both state-owned enterprises and collectively-owned enterprises which are owned by the rural community but under tight political controls. The firms' classification is discussed in detail in section 4.2.

The estimated effect is large and statistically significant. A one standard deviation increase in the credit access measure of state-related firms leads to a 0.2 standard deviation increase in the measure for firms' assistance. I find no similar effect for private firms.⁷ The results remain robust after controlling for the sales share of the state-related firms in local economy and other firm characteristics, including turnover ratio (firms' capacity to translate assets into sales income), profitability (a proxy for productivity) and local industrial composition. Turning to the second favor, tax deduction, similar results emerge. I find that in counties where private firms enjoyed greater tax deductions, county governments can mobilize more assistance from them in raising the 2001 benchmark. Moreover, no similar effect for state-related firms is found and the results remain robust after controlling for the share of private firms as well as other firm characteristics.

After showing that the governments can acquire more assistance from firms that received more favors in the past, I move on to examine whether this informal relationship is a personal or institutional one. To do so, I assemble another dataset comprising all county-level leadership turnover from all provincial and prefectural yearbooks between 1994 and 2008. This allows me to trace the year in which leaders take office and also the year in which they leave. Different from previous studies, such as Chen and Kung (2016), in which only the county party secretary is recorded, I also trace the county mayor who is directly responsible for local governance affairs, including managing local fiscal planning. I find that when government leaders were soon to leave office in a few months, the firms that had previously received favors did not assist the government in raising the 2001 benchmark. This result confirms that this informal reciprocity between governments and firms is indeed a personal relationship. This finding is not because leaders lacked the incentive to respond, since county leaders need to show that they are aligned with those in the prefectural or provincial governments who all intend to keep tax at the local level and also evaluate the county leaders' performance. This is confirmed since leaving leaders are still found to relabel other taxes to finance their responses in the benchmark. In addition, I use leaders' tenure at the end of a term to proxy the likelihood of their leaving to show that the results for leaving leaders are not driven by reverse causality, i.e. leaders' leaving as a consequence of their responses to the reform. Finally, I find that firms that previously enjoyed greater favors from previous government are also more likely to take the initiative to assist new leaders in order to build up a new reciprocal relationship to gain future government favors.

To interpret the full set of results, I present a simple model of the reciprocal relationships between governments and firms in an infinite horizon. In my model, both governments and

⁷As an important counterfactual, I show that the same measure of central-state-owned firms, which do not rely on local government favors, has no effect.

firms are forward-looking and they choose whether to exchange favors with each other. To align with the empirics, governments now request for favors from firms. Firms then need to decide whether to offer favors in exchange for future gain from reciprocity or not to offer favors and be punished by losing the reciprocal relationship with governments. The model suggests that if firms have previously received favors from governments, then a reciprocal relationship between governments and firms exists. In this case, firms would choose to return favors to governments. Furthermore, in a stationary environment the firms that have received more favors from governments previously would be the ones that also expect a higher value from future reciprocity. As a result, these firms are likely to offer more favors to governments. Two predictions arise from the model: (1) that governments can mobilize more firms' assistance if firms have in the past received more favors from them. (2) when the probability of government turnover is high, previously favored firms do not return favors to governments since the current official will not be there in the future to return them.⁸

Literature review

The findings of this paper contribute to the literature on political connection by extending the discussion to include the perspective of governments or politicians. Due to its secrecy in nature we know very little about how much and what are the prices paid by the firms in exchange for benefits. These payments can be in simple forms of cash transfer that accrue to personal gain, such as corruption, but it can also be in forms to support connected politicians, such as through campaign contributions to provide electoral advantage (Sukhtankar (2012)) or through expanding employment to garner votes (Bertrand, Kramarz, Schoar and Thesmar (2006), Cole (2009), Dinç (2005)). The findings of this paper add to this small literature suggesting that the forms of payment do not have to be monetary but rather it can be all sorts of costly actions to meet governments' demand. Furthermore, this is the first study to provide the evidence in showing that the two-way reciprocal relationship can also exist in an authoritarian regime.

The findings of the informal and dynamic interaction between governments and firms also contribute to the empirical literature of informal relational contracts (see Gil and Zanarone (2016)). In particular, the breakdown of reciprocity due to leaders' leaving suggests that this informal contract is a long-term relationship that is enforced by anticipating future gain from staying in the reciprocity. There are a few empirical literatures that study the informal contracts between firms in the developing country context (Macchiavello and Morjaria (2015), Banerjee and Duflo (2000), McMillan and Woodruff (1999)). This paper contributes to this

⁸I extend the theoretical framework in appendix A to understand firms' choice to assist local governments when leaders just arrived in office without pre-existing relationships with firms. It predicts that firms that relies more favors from governments would still assist new leaders in order to enter a new reciprocal relationship.

growing literature in development and shows that the same informal relationship can also run between governments and firms.

Finally, this paper is related to the vast literature on fiscal federalism. While most studies (see Oates (1999)) focus on the benefits and the costs associated with decentralizing fiscal authorities. This paper depicts the political struggle between central and local governments when a recentralization needs to be reformed.

The remainder of the paper is organized as follows. Section 2 describes the institutional background to the central-local government tax-sharing reform, local government institutions and government favors to local firms. Section 3 provides a simple theoretical framework to organize the empirical results. In Section 4 I provide details of the data set and variable construction. In Section 5 I present the baseline empirical results and robustness checks. In Section 6 the heterogeneous effects of local leadership turnover is presented. In Section 7 I discuss how the findings can help us understand the government-business relationship in China and in section 7 I draw conclusions and policy implications.

2. Institutional Background

In this section, I begin by discussing the 2001 Chinese central-local tax-sharing reform (subsection 2.1). This is followed by introducing the underlying political institution (subsection 2.2), and lastly I discuss local governments' favors that go to firms (subsection 2.3).

2.1. The 2001 Central-local Govn't Tax-sharing Reform

Corporate income tax was an important local government fiscal resource before 2002. The tax rate is 33% on profit income and local governments do not have the authority to alternate the tax rate. All corporate income tax had been retained to local governments as a major fiscal resource, which accounted for about 11% of the local tax revenue in 2000, with a 25% annual growth rate.

In October 2001, central government unexpectedly announced a nationwide reform to partially centralise income tax in order to develop the Western part of China. It states that from 2002 corporate income tax would be shared between central and local governments.⁹ The central-local sharing ratio began at 50:50 in 2002 and changed to 60:40 from 2003 onwards.¹⁰ To avoid a negative shock to local fiscal budgets, the 2001 tax revenue was designed to be a benchmark. Such that whenever the share that stayed at the local fell below

⁹The term "local governments" here refers to all non-central government bodies, including provincial, prefectural and county governments (see Figure 11)

¹⁰The way in which the fiscal revenue-sharing system works can be found in the Han and Kung (2015).

the benchmark, the central government would refund to local governments the difference between the benchmark and the local shares. That is, the higher is the 2001 tax revenue, the more tax would remain at the local level post-2001. This specific design incentivized local governments to increase the 2001 tax revenue in November and December of 2001 right after the announcement of the policy. The local governments' responses to the reform was illustrated in a government paper published on January 1, 2002.¹¹

*“After the announcement of the 2002 corporate income tax sharing reform in October this year, local corporate income tax had an **abnormal growth** ... tax revenue of November 2001 increased by 139.4% compared with the same time last year ... and 187.1% for the first half of December... Areas with more than 100% growth during mid-December are as follows: Jiangxi increased by 816%, Ningbo city increased by 708.7%, Henan increased by 609%... Do not raise the benchmark purposely...”*

Due to the extreme responses from local governments, the central government abandoned the 2001 benchmark. This was replaced by a function of the corporate income tax revenue in year 2000. Using annual corporate income tax from about 500 county governments and including GDP per capita as controls, in Figure 1 I plot the estimates of year dummies from 1998 to 2003. It clearly shows that the 2001 estimate deviates from the time trend. However, there is no associated increase in local economic activities. This is shown in Figure 2.A in which the total value-added tax (VAT) in 2001 has no associated deviation, nor the local firms' aggregate sales income, shown in Figure 2.B. This confirms that the abnormal deviation in 2001 corporate income taxes is indeed a response to the tax-sharing reform.

An important issue to note is that all the tax revenue needs to be remitted to Treasury before being redistributed back to local governments. Therefore, local governments cannot simply fake the number. In fact, the central government sent auditors to check these local governments' abnormal responses.¹² They find out how local governments raised the tax revenue mainly through two channels which are stated in the same government paper: (1) relabeling tax revenue and (2) financing from firms' assistance. The first channel does not need the assistance of firms but simply relabeling other tax revenue as corporate income tax.¹³ However, operations through the second channels require assistance from firms. The

¹¹The same reform also applies to personal income tax with a similar reaction from local governments but smaller in extent. In this study I focus on the corporate income tax.

¹²Some local governments were fined for having raised tax revenues on purpose. Their fine was recorded in the provincial aggregates published in the 2002 National Tax Yearbook.

¹³Despite that it is a simple accounting exercise for governments, it can be very costly since this doing can easily be detected by the central government. Therefore, as I will show later in the empirical section it only explains about 18% of the rise in the benchmark and possibly leaders utilize this channel more only when firms are less willing to assist.

logic behind the scene can be best described as follows: in any other normal times, shown in Figure 3.A, firms pay tax to local governments and the revenue is then remitted to Treasury before being redistributed back to the governments. However, in November and December 2001 as shown in Figure 3.B, firms paid tax and also other transfers. The money was again remitted to Treasury and then came back to the governments. Governments kept the tax and returned the extra money back to the firms. As shown in Figure 4, using firm survey data I find a consistent evidence that firms were not paying abnormally high corporate income tax in 2001. In sum, these patterns suggest that no real tax is being paid but simply move money around and relabel them as corporate income tax.

2.2. *Political Institution*

2.2.1. *Using County as the Unit of Analysis*

In this study, I use county governments as my unit of analysis for the following reasons: First, there is a great variation in how much the 2001 benchmarks are raised among county governments. Second, this is the lowest level of administration, therefore firms located in the county have to deal directly with this level of government.¹⁴ Finally, I use firm location to match which governments firms deal with the most. However, this does not apply to firms registered under district governments because they are likely to operate in another district within the same prefecture. Furthermore, firms located in the district should value their relationship more with the prefectural governments, rather than with the district governments. This makes the county and district governments incompatible in many ways. Therefore, I only focus on county governments in this study. In the next, I discuss the governments' leadership and the sources of leaders' incentives to remain the tax at local.

2.2.2. *Government Leadership*

Governments throughout the political hierarchy in China are running a dual-leadership system. In counties, the county mayor is the *de jure* leader and responsible for all governance affairs while the county party secretary leads the county to obey the Communist Party rule. There are no explicit rules on how their responsibilities should be distributed. In practice, the party secretary should be the *de facto* leader since the position enjoys a higher rank within the Party. Given the ambiguity in their roles in the government, when I examine the heterogeneous effects of leadership turnover, I take into account both county mayor and county party secretary. Another reason for this innovation is because when the party

¹⁴The governmental hierarchy is shown in Figure 11.

secretary leave the office, it is likely to promote county mayor to take over the party secretary position. In this case, there will be a continuity in the government leadership.

Regarding local leaders' turnover, both mayor and party secretary have a *de jure* term which is fixed for 5 years but their *de facto* terms are determined by bureaucratic assignments. Based on my constructed turnover data, their terms on average is about 4 years and more than 80% of them leave the office within 5 years with a peak around 4 to 5 years.

2.2.3. Promotion As An Incentive Driver

Both leaders of county governments who manage to show competence in developing local economies are rewarded by promotion within the hierarchical political system. This is done by making local government leaders compete against each other for career advancement; for example, county leaders compete against each other for promotion in entering prefectural government. This jurisdictional yardstick competition has long been recognized, as in Maskin, Qian and Xu (2000) and Xu (2011), and is supported by empirical evidence, such as Chen (2015), Jia, Kudamatsu and Seim (2015), and Li and Zhou (2005). It is this urge to develop economically which incentivizes county leaders to raise the 2001 benchmarks to keep fiscal resources local. In addition, their personnel evaluations are usually compiled by governments in the ranks immediately above. For example, county leaders in my study are evaluated by prefectural governments, which also try to keep tax local. This puts in place another incentive for county leaders to respond to, as to cater for those who evaluate them.

2.3. Proxies for Government-Firm Relationship

To empirically identify firms that are connected to governments is particularly difficult. Most literature on political connections uses family ties or personal contacts to identify firm-specific connections. However, these methods do not apply here for two reasons: one, to conduct a business at the grassroots level, such as counties, some relationship (called *Guanxi* in Chinese) with government officials is necessary. Therefore, *Guanxi* is not binary but rather a relationship that varies in intensity. Second, I need an county-level measure for *Guanxi* in order to analyze county governments' aggregate responses. To address these two concerns, instead, I measure previous favors from governments to firms as a proxy for the value of the connection between them. This method gives a varying measure and enables me to aggregate at the county level. To do so, I focus on two of the most common and measurable favors that governments grant to firms in Chinese context - access to credit, and tax deductions.

I begin by discussing preferential access to credit. In China all banks are state-owned

and capital mobility across regions is low. This gives local governments a great deal of power over decisions to grant loans. Therefore, as is widely recognized, capital in China is misallocated between firms. This has received significant attention in the literature, such as Hsieh and Klenow (2009) and Dollar and Wei (2007). In particular, literature, such as Firth et al. (2009), Li et al. (2008), Boyreau-Debray and Wei (2005), have pointed out that state-related firms are much easier to access credit through external finance comparing with private firms which mostly rely on retained earnings and private lending (Dollar and Wei (2007), Riedel and Gao (2007) and Allen et al. (2005)). In addition, Song, Storesletten and Zilibotti (2011) also points out that private firms are financially repressed and as a result their capital-output and capital-labor ratios are substantially lower. These studies suggests that more government preferential loans would go to state-related firms. Therefore, I use the favor of granting access to credit as government favors for state-related firms.

The second favor to be discussed is preferential corporate income tax deduction. Chinese corporate income tax codes for domestic firms are identical nationwide. It had a flat rate at 33% before 2008 but a large grey area for deduction. Therefore, given the scope in which tax code can be manipulated, local governments often offer tax deductions. A lively discussion can be found in Bai et al. (2014). However, for state-related firms both their profit or tax need to be remitted to local governments, which makes state-related firms less sensitive to tax deduction as a favor. Therefore, I use corporate income tax deduction as government favors for private domestic firms.

3. Theoretical Framework

Political connections can take various forms; here, I define connected firms as those receiving preferential treatments from governments. Therefore, I model the governments' mobilization of firms' assistance in a reciprocal relationship, following Kranton (1996). Government (G) and Firm (F) are two risk-neutral agents exchanging favors in an infinite time horizon. For simplicity, I assume their favors to be identical and non-storable. Furthermore, favors are informal and no contractual agreements are possible. In each period, agents take turns to offer and then to request for favors.¹⁵ In this study, I examine the link between previous favors to firms and firms' help to governments in responding the reform. To align with the empirics, I assume that Firm is the first to request for favors, followed by Government. Firm needs a favor, x , from Government, where x is randomly drawn from a distribution

¹⁵There are various kinds of favors demanded by the local governments. The detailed discussion can be found in Section 7. Here in the framework I omit the discussion on the initial cause of the reciprocal relationship. Instead, I focus on this reform which would allow us to study this dynamic relationship.

$F(\cdot)$ with support $[0, \bar{x}]$.¹⁶ Government who gives favors x incurs a private cost $c(x) > 0$, where $c'(x) > 0$, $c(0) = 0$, and $c(\bar{x}) < \bar{x}$.¹⁷ The announcement of the reform serves as a realisation of favors needed by Government from Firm. Government therefore turns to Firm to request for favors as Firm previously did. Once a period is over and before a new period starts, nature determines that one of the two agents request for a favor before the other and then the game proceeds as in the previous period. I assume for probability $\theta > \frac{1}{2}$ Firm would be the first to request for favors and $(1 - \theta) > 0$ for Government. Their per half period discount factor is $\delta > 0$. Furthermore, since this relationship between governments and firms is informal, it is more likely to be a personal rather than institutional one. Therefore, it is most likely that this relationship is a repeated interaction between government leaders and firms. That is, the leaders' leaving would affect how Firm expect its value from future of reciprocity. I assume the probability of leaders' staying is $\pi \in [0, 1]$ and it is only realized the half period before.¹⁸ This suggests that whether leaders are leaving or not will only be known in the previous half period.

Let $V_R^F = \theta V_1 + (1 - \theta)V_2$ and $V_R^G = (1 - \theta)V_1 + \theta V_2$ be the expected lifetime discounted utility (continuation value) from their reciprocal relationship for Firm (F) and Government (G) respectively, where V_1 and V_2 are the expected value of those who request for favors first and second. V_1 is the expected utility when agent k requests for the favors first:

$$V_1 = \int_0^{\bar{x}} z dF(z) + \pi \delta \int_0^{\bar{x}} -c(\omega) dF(\omega) + (\pi \delta)^2 V_R^k, \quad k \in \{G, F\} \quad (1)$$

The first term is the expected favors received and the second term is the expected favors provided in the next half period before entering the next period to receive continuation value. V_2 is the expected utility when agent l requests for the favors second:

$$V_2 = \int_0^{\bar{x}} -c(\omega) dF(\omega) + \pi \delta \int_0^{\bar{x}} z dF(z) + (\pi \delta)^2 V_R^l, \quad l \in \{G, F\} \quad (2)$$

As a symmetry to the first agent to request for favors, the first term is the expected favors provided and the second term is the expected favors received in the next half period before entering the next period to receive continuation value. As I discuss earlier, here I assume that Firm is the first to request for a favor, I solve for V_R^k , $k \in \{G, F\}$, using (1) and (2).

¹⁶For simplicity, we assume that Government and Firm share the same distribution, $F(\cdot)$ with the same support $[0, \bar{x}]$. This can be easily to extend to have Government and Firm drawing their favor request from different distributions.

¹⁷ I assume that the cost function is bounded above by the favor to ensure that it is beneficial in the expectation of staying in a reciprocal relationship. It is a reasonable assumption since many favors are costly because of the checks and balances by the institution rather than because of their inherent cost.

¹⁸This assumption is justified since county-level leaders' turnover are based on bureaucratic assignment without a fixed term. Furthermore, they often learn the decision at the very last minute.

This gives

$$V_R^F(\bar{x}) = \frac{1}{2(1 - \pi\delta)} M(\bar{x}) + \frac{(1 - \pi\delta)(2\theta - 1)}{2(1 - \pi\delta^2(2\theta - 1))} L(\bar{x}) \quad (3)$$

$$V_R^G(\bar{x}) = \frac{1}{2(1 - \pi\delta)} M(\bar{x}) - \frac{(1 - \pi\delta)(2\theta - 1)}{2(1 - \pi\delta^2(2\theta - 1))} L(\bar{x}) \quad (4)$$

where $M(\bar{x}) = \int_0^{\bar{x}} (z - c(z)) dF(z)$ and $L(\bar{x}) = \int_0^{\bar{x}} (\omega + c(\omega)) dF(\omega)$. Since I assume $\theta > \frac{1}{2}$, then I have $V_R^F(\bar{x}) > V_R^G(\bar{x})$. This is mainly a result of time discounting, since Firm is always likely to be the earlier one to request for favors. The parameter θ thus captures the degree to which Firm is needy, in relation to Government. The continuation value for Firm, $V_R^F(\bar{x})$, is increasing in θ , while the continuation value for Government, $V_R^G(\bar{x})$, is decreasing in θ .

3.1. *A Reciprocal Relationship as An Equilibrium*

Since a reciprocal exchange happens intertemporally, agents can choose whether to renege on offering favors. Therefore, I study conditions in which a reciprocal relationship is enforceable, a subgame perfect equilibrium, so that no one will have an incentive to renege on offering favors and to apply a punishment whenever someone does. First, a grim-trigger strategy can be a credible punishment: whenever an agent reneges on providing favors, the other agent will no longer provide favors. This is credible since when one agent stops offering favors, the best response for the other is to do the same. In this equilibrium, value for both agents will become 0. After establishing the outside option from the punishment, I turn to working out the conditions in which Government and Firm are willing to participate in a reciprocal relationship. Since I assume that Firm is the first to request for a favor, for Government to stay in a reciprocal relationship the following condition needs to be satisfied.

$$-c(\bar{x}) + \pi\delta \cdot 0 + (\pi\delta)^2 V_R^G \geq 0 \quad (5)$$

This condition states that if the worst possible payoff of Government, Firm request for \bar{x} and then Government request for 0 favor and followed by the continuation value, is still greater than the payoff of never entering, a reciprocal relationship, 0, Government will choose to participate a reciprocal relationship and exchange favors with Firm. For Firm to stay in a reciprocal relationship, the following condition needs to be satisfied.

$$0 + \pi\delta \cdot -c(\bar{x}) + (\pi\delta)^2 V_R^F \geq 0 \quad (6)$$

If condition (5) for Government is satisfied, given that $V_R^F(\bar{x}) > V_R^G(\bar{x})$, the condition (6) will also be satisfied since Firm is closer to requesting for a favor. This condition states

that if the worst possible payoff of Firm, Firm requests for 0 favor and then Government requests for \bar{x} and followed by the continuation value, is greater than the payoff of never entering a reciprocal relationship, 0, Firm will choose to participate a reciprocal relationship with Government. Therefore, I have the following prediction:

Prediction 1. *(Reciprocal Relationship) If governments have previously given favors to firms, the favored firms will return favors to the governments.*

If firms have previously received favors from governments, then a reciprocal relationship between governments and firms is an equilibrium. This gives rise to Prediction 1 which implies that county governments can find assistance from firms, which have previously received favors, to raise the 2001 benchmark. Furthermore, since local governments are raising as much resources as they can, this suggests that governments request for favors at its upper bound, i.e. $x = \bar{x}$. In the setup, I assume the distribution $F(\cdot)$ in which favors were drawn from is time-invariant. Therefore, the higher is *previous* favors from governments to firms, in a stationary environment, the higher is the expected value of *future* reciprocity for firms, which leads to a higher \bar{x} to be requested by governments while the reciprocal relationship can still be sustained. As a result, the variation of previous favors from governments to firms can capture the variation in \bar{x} across counties. This gives the following proposition.

Proposition 1. *County governments which previously granted more favors to local firms can now harvest more assistance from those previously favored firms*

Therefore, empirically I expect that the measures for favors to firms should be positively correlated with a firms' assistance in the 2001 benchmark.

When Firm decides whether to give favors to Government or to renege, it takes local leadership turnover into account, in particular when leaders are soon to leave. A reciprocal relationship is sustained because agents can gain from future reciprocity, as suggested in (5) and (6). If leaders are about to leave, the value of future reciprocity will not be received. This suggests that condition (6) will no longer hold and Firm will renege on its promise to return favors. This leads me to the following prediction.

Prediction 2. *(Reciprocity Without Future) When leaders are about to leave shortly, leaders will not be able to find assistance from previously favored firms.*

Empirically I expect that when leaders are leaving the office, previous favors to firms no longer have an effect on firms' assistance measure in the benchmark. At the same time, this prediction also suggests that the leaving leaders have to resort to its outside option - relabeling from other tax revenue.

Corollary. (*Resorting to Outside Option*) *When leaders are about to leave shortly, without the assistance from firms leaders can only relabel from other taxes.*

Empirically I expect that the leaving leaders would still relabel other tax to increase the benchmark and possibly do more with this channel. In the appendix A, I turn to look at leaders who have newly arrived in office to interpret my findings for new leaders. In the next section, I discuss the details of datasets and how I define and construct variables used in the empirical analysis.

4. Data on Fiscal, Economic, and Political Variables

In order to study local governments' mobilizing assistance from firms, I use data from 476 counties across China. In this section, I discuss my main data sources and the details on variable construction. The descriptive statistics of variables are summarized in Table 1.

4.1. *Corporate Income Tax and Other Fiscal Data*

To measure local government responses in the 2001 benchmarks, I need a panel dataset of county-level corporate income tax revenue both pre- and post-2001. However, all the published sources are either aggregates at provincial level or have been openly available since 2001. Instead, I construct a dataset that uses first-hand data collected from various local tax and fiscal yearbook.¹⁹ In total, I have a sample of 476 counties across China out of about 2,000.²⁰ The samples lie within 112 prefectures across 25 provinces. The map of counties, in which data is available, is shown in Figure 12. The reason why data for other counties are not available is because governments before 2001 combined the profits of state-owned enterprises (SOE) and corporate income tax as one bookkeeping item. Before 2001 it was only for idiosyncratic reasons that the public was able to observe corporate income tax, for example, if local tax authorities decided to publish their own Yearbooks or fiscal authorities published more detailed records for idiosyncratic reasons. The concern of sample selection will be addressed in the robustness check of section 5. In addition, all other county fiscal revenue, county-level nominal GDP and population are constructed from the *Provincial, Prefectural and County Fiscal Statistics*. To control for a possible difference in the incentive to respond caused by local fiscal burden, I construct fiscal pressure for each county which is defined as fiscal expenses divided by fiscal revenue. In the following section, I measure my main outcome variable, the firms' assistance in the 2001 benchmark.

¹⁹The data sources are listed in the Appendix.

²⁰ I exclude Tibet, Xinjiang and Qinghai from the analysis.

4.1.1. *Measuring Assisted Corporate Income Tax Deviation (ATD)*

In order to measure the assistance from firms to raise the 2001 corporate income tax, I take three steps: 1) I construct the counterfactual 2001 corporate income tax to measure the total deviation; 2) I then calculate the amount from relabeling other taxes and net out from the total deviation; 3) I finally normalized the measure with counterfactual corporate income tax. The details of each steps are explained in the following. While all other economic variables grew in a quadratic time trend, the deviation of 2001 corporate income tax from its own trend can be taken as a measure of the local governments' responses. In order to do so, using a panel data on corporate income tax from 476 counties from 1998 to 2003, I regress corporate income tax on individual quadratic time trends and include Ln GDP per capita as a control but exclude year 2001. For county i at time t ,

$$y_{it} = b_0 + \omega_1 t + \omega_2 t^2 + \sum_i (\gamma_{1i} t + \gamma_{2i} t^2) \cdot \beta_i + \beta_i + \delta \ln_GDP_{PC_{it}} + u_{it},$$

$t = 1998 \dots 2003$ but $t \neq 2001$

My specification is particularly flexible and allows each county to follow its own trend.²¹ Using the above regression, I predict the counterfactual 2001 corporate income tax as if there were no distorted responses from local governments. The residuals for 2001 are my measure for the overall response. Using the residuals as an outcome variable, I plot the coefficient estimates on year dummies in Figure 5. This shows how large the 2001 deviation is in absolute terms. However, the governments' responses are from two channels as shown in Figure 6, relabeling other taxes and firms' transfer, as pointed out by the central governmental paper. In order to construct a measure that is purely from firms' assistance, I proceed as follows: first, I show that governments indeed relabeled other taxes as part of the responses; second, I subtract the relabeled taxes from the total responses so that the remnants of responses are from firms' assistance.

As shown in Figure 7.A, I find that all other taxes, the sum of business tax, agricultural tax and other fees, experienced a negative deviation from trends.²² Figure 7.B plots the relationship between the positive deviation in the 2001 benchmark and the negative deviation

²¹One obvious alternative is log-linearity. There are two reasons why it is not preferred: first, I intend to use the deviation from trend as the governments' responses in absolute level. However, by taking log the absolute level of deviations will have their magnitude changed. Second, by taking log the variation of my main outcome variable, relative ATD, will be repressed because more than 50% of the observations have this measure exceeds 1.10, the threshold in which log transformation becomes to repress the variation greatly.

²²Business tax is approximately 17% of local tax budgets. It is a tax that applies to taxable services, transferring intangible assets, or selling immovable properties. The sum of all these tax accounts for 64% of local tax revenue.

of other taxes. The negative correlation suggests that the government relabeled other taxes to finance the jump observed in the corporate income tax in 2001. Their significant correlation is also formally tested in a regression later in the robust section. The channel of relabeling other taxes accounts for about 18% of the average total corporate income tax deviation. I now construct my main outcome variable, a measure of relative ATD from firms' assistance, which is calculated by first subtracting relabeled tax revenue from 2001 corporate income tax and then divided by the predicted counterfactual. For county i ,

$$\text{Relative ATD}_i = \frac{\text{2001 Corporate Income Tax}_i - \text{Relabeled Other Taxes}_i}{\text{Counterfactual 2001 Corporate Income Tax}_i}$$

If there were no firms' assistance, the relative ATD measure is expected to be distributed with a mean close to 1. As shown in Figure 8, the distribution has a long right tail and is skewed above 1 with a mean of 1.5 and standard deviation of 0.85. The measure ranges from 0 to almost 30 times the predicted counterfactual. In my sample, the largest relative ATD is from Aba County in Sichuan, as shown in Figure 9. It reaches almost 30 times the counterfactual. After constructing the main outcome of interested, relative ATD, in the next subsection I turn to explain how to construct measures for previous favors to firms as my main regressors.²³

4.2. *Ownership and Measures for Favors*

All firm-related variables are constructed using the Annual Surveys of Industrial Production. The dataset contains universal firms that have annual sales above 5 million RMB (eq. to 800,000 USD) from 1999 to 2003. Detailed information for each firm is recorded, including their location, industry code, paid-in capital composition, liability, assets, sales income, taxable income, payable income tax, and etc. Next, I begin by classifying each firm according to ownership, whether state-related or private. This is followed by constructing the measure for favors - debt leverage for credit access and effective tax rates for tax deduction.

4.2.1. *Classifying Ownership*

In my samples, the number of surveyed firms in each county ranges from 1 to 765 with a mean of about 73. I classify each firm into state-related and private domestic firms according

²³According to the 2002 government paper, the reform was announced unexpectedly. However there is still concern for the information to be leaked before the announcement and so the local governments would raise the tax revenue long before October in 2001. But to bias the response estimate, the governments need to know the reform before 2001 since the fiscal data is annual. Given that there is a similar experience in local response in 1994 VAT sharing reform, the central government would only try harder to avoid leakage.

to each firm's paid-in capital composition.²⁴ I define a firm to be local state-related if 50% or more of its paid-in capital is coming from the local state and collective capital.²⁵ Under this definition, state-related firms include both local state-owned enterprise and collectively-owned firms. On average, 50% of the surveyed firms are state-related under this classification. I apply the same method when I calculate for private firms. A firm is defined as private if 50% or more of the paid-in capital consists of private and legal person capital.²⁶ On average, 43% of the surveyed firms are private according to the samples. The remaining 7% of firms are consist of central-state-owned firms and other foreign controlled firms.

After classifying firms by these two forms of ownership, I calculate their respective shares in the county. To assist governments in raising the 2001 benchmarks promptly, the firms' liquid assets matter more than their illiquid assets. Therefore, instead of using firms' total assets, I use their sales income to calculate the relative size for each ownership. The size of state-related firms in a county is dividing the total sales income of state-related firm by the county's total sales income. That is, for the surveyed firm j in county i ,

$$\text{Size of state-related firms}_i = \frac{\sum_{j \in i} I(\text{State-related firms}_{ji}) \cdot \text{Sales income}_{ji}}{\sum_{j \in i} \text{Sales income}_{ji}}$$

Similarly, this method is also used to calculate the relative size of private firms. The average relative size of state-related firms is about 0.60 while private firms are smaller on average at about 0.32. Their variation is similar: private firms' standard deviation is at 0.23 and at 0.26 for state-related firms. Their shares sum up to 0.9 on average.²⁷ I next construct the measure for each favor for various forms of ownerships.

4.2.2. Measures for Favors

To measure the first favor - firms' access to credit - given the data limitation, I do not observe firms' total loans but only their balance sheets are available. Therefore, I take firms' liability to proxy their access to loan and normalized by their assets. This measure is to be called debt leverage in this paper. I calculate aggregate debt leverage for each county. This measure is constructed by summing up the total liabilities and then normalizing by the total

²⁴There are 6 types of capital – local state, collective, private, legal person, central state, and foreign. Here I focus on local domestic firms which have more than 50% of their capital coming from the first 4 categories.

²⁵Collective capital is a type of capital collectively owned by the residents of the town or village and managed by the local council. Therefore, the use of collective capital is tightly controlled by local politicians.

²⁶The legal person capital is capital contributed by registered organizations.

²⁷The remaining firms mainly consist of central-state-owned firms and foreign-owned firms.

assets of all the surveyed firms in the county. For all surveyed firms j in county i ,

$$\text{Debt leverage}_i = \frac{\sum_{j \in i} \text{Liability}_{ji}}{\sum_{j \in i} \text{Assets}_{ji}}$$

The debt leverage measure has a mean of 0.7 with a standard deviation of 0.16. I repeat the same exercise and calculate the measure for each ownership. While the average debt leverage for state-related firms is 0.71, the same measure for private firms is lower at approximately 0.59. The variation is greater for private firms with standard deviation at 0.26 and at 0.18 for state-related firms. This measure has a very different meaning for state-related firms as compared to for private ones. As discussed in the institutional background, state-related firms are more likely to finance through bank loans while private firms have to rely on private lending. Therefore, the debt leverage ratio should capture the variation of the state-related firms' access to credit as a government favor but this is not the case for private firms.

The second favor is corporate income tax deduction and is measured using an effective corporate income tax rate, defined as the ratio of reported tax paid to a reported tax base. I calculate the average of the effective tax rate for each county. For the surveyed firm j in county i ,

$$\text{Effective corporate income tax rate}_i = \frac{\sum_{j \in i} \frac{\text{reported tax paid}_{ji}}{\text{reported tax base}_{ji}}}{\# \text{ of surveyed firms}_i}$$

The effective tax rate is low: an average of about 5% with standard deviation at 0.05. I also calculate the average effective tax rate for each ownership. The mean of effective tax is 0.053 for private firms and 0.047 for state-related firms. Their standard deviations are 0.054 for private firms and 0.042 for state-related firms.

4.2.3. *Other Firm Characteristics*

In order to control for local firms or industry characteristics, for each ownership I also construct their respective turnover ratio, defined as total sales income divided by total assets, to capture firms' efficiency associated with assets utilization; and their profitability, defined as profit divided by total assets, to proxy for productivity; and finally industry composition based on sales income from resources, manufacturing and utility industry. All the firm-related variables, including both measures of favors, are averaged from 1999 and 2000, before the reform in 2001. Not only this construction avoids reverse causality but it also captures the

variation before the reform, i.e. the pre-existing government-firm relationship.²⁸

4.3. Data on Local Political Leaders

In order to construct the tenure in office of local political leaders, I collect the names of local politicians from the Chinese provincial and prefectural Yearbook, which records the list of local politicians.²⁹ Tracing their names over time allows me to record the year in which they took office and the year in which they leave. Specifically, I collect the names of the top two leaders, the county party secretary and the county mayor, from 1994 to 2008.³⁰ In addition to these leaders' tenure, I can also learn if the county party secretary was promoted from mayor office in the same county.

To examine how the effect of favors changes with leadership turnover, I construct indicators for counties with leaders just starting office and those with leaders who are soon to leave. Given the unique dual-leadership system in China as I discussed in the institutional background, I construct an indicator for counties with new leaders as follows. The indicator takes a value of 1 if both conditions are satisfied and 0 otherwise:

1. County party secretary began office in 2001, not promoted from mayor.
2. County mayor began office in 2001.

Out of 441 observations where the new leader indicator is not missing, about 34 (8%) county leaders had just taken office. Similarly, I construct an indicator for counties with both leaders leaving. This indicator takes a value of 1 if both conditions are satisfied and 0 otherwise:

1. County party secretary leaves office in 2002.
2. County mayor leaves office in 2002, not promoted to party secretary.³¹

Out of 440 observations where the indicator of leaving leaders is not missing, about 34 (8%) counties have leaders due to leave in the next few months. The indicator for leaders at the end of a term takes value of 1 if both leaders have stayed in the office for 4 years or more.³² Out of 441 observations where the end-of-term leader indicator is not missing, about 40 (9%) both county leaders had stayed in the office for 4 years or more.

²⁸Another construction is to trace the leaders' tenure and take the average for the tenure period. The challenge here is that the tenure is often greater than 2 years, i.e. starting before 1999. Alternatively, I can use only values in 2000 since most leaders are unchanged and given that the relationship is a dynamic variable the most recent approximation makes even more sense. Despite the results are not reported in the paper, all the main results are robust to this alteration.

²⁹The list of politicians names is based on those who are in position on the last day of the year.

³⁰A caveat is that some Yearbooks, the earlier ones in particular, do not document the name list and therefore I do not have data on leaders' turnover for some counties.

³¹Long and Yang (2016) also follow this innovation in this paper and find that leaders' leaving has a negative effect on firms' charitable behaviour.

³²Regarding local leaders' term, both mayor and party secretary have a *de jure* term which is fixed for

5. Empirical Analysis

This section begins by discussing my empirical specifications (subsection 5.1). I then discuss the estimates of each of the two favors. The first is state-related firms' access to credit, measured by debt leverage (subsection 5.2). This is followed by the second favor, private firms' tax deduction, measured by effective tax rate (subsection 5.3). After the baseline estimation, robustness checks are provided (subsection 5.4).

5.1. Empirical Specification

In order to examine if county governments can mobilize connected firms' assistance in raising the 2001 tax benchmark, I use data from 476 counties in 2001 to estimate the following specification:

$$y_{ik} = \beta_0 + \gamma Z_{ik} + \beta_k + \beta' X_{ik} + u_{ik} \quad (7)$$

The outcome variable, y_{ik} , is the relative ATD of county i in prefecture k . Z_{ik} is the main regressor, the favors from local governments towards firms - credit access measured by debt leverage or tax deduction measured by effective tax rate. β_k is the prefectural fixed effects. A set of controls are included in X_{ik} . The first control is previous fiscal pressure which help to hold the governments' incentive to response fixed so that I can focus on governments' capacity to mobilize firms' assistance. Other controls include previous corporate income tax (normalized by GDP) and Ln GDP per capita in 2001.³³ Robust standard errors are clustered at the prefectural level. Given the concern over extreme outliers, I exclude observations with its measure of relative ATD at the top 1%. In the robustness checks, I also estimate the effects using quantile regressions.

5.2. Assistance from Favored Firms: Credit Access

In this subsection, I discuss the main results. I start by looking at whether counties with a higher local state-related firms' credit access, as measured in debt leverage, governments can find more assistance from state-related firms to raise the 2001 benchmark. That is, whether counties with higher previous debt leverage for firms would raise the 2001 benchmark more. As shown in column 1 of Table 2, the coefficient estimate for all firms' previous debt leverage is positive and significant. However, as pointing out earlier that not all bank loans should be treated as favors. Bank loans tend to favor local state-related firms. That is, empirically

5 years but their *de facto* terms are determined by bureaucratic assignments. Based on my constructed turnover data, their terms on average is about 4 years and more than 80% of them leave the office within 5 years with a peak around 4 to 5 years.

³³The results are robust to include Ln GDP as a control instead.

I expect that state-related firms' debt leverage should matter but not so for that of private firms. This conjecture is tested as shown in column 2 of Table 2. The coefficient estimate for state-related firms' previous debt leverage is positively significant and its magnitude is similar to the estimate in column 1 — one standard deviation increase in the firms' previous debt leverage increases the measure of relative ATD by about 0.2 standard deviation. This is a non-trivial effect and suggests that state-related firms which previously had more access to credit are more likely to assist governments. The same estimate for private firms' previous debt leverage is small and insignificant. This result confirms the first proposition proposed in the theoretical section: that governments which gave more favors to local firms in the past can *harvest* more of their assistance to respond in the reform. Furthermore, in column 3, I show that debt leverage matters only for local state-related firms and not for central-state ones, which have a small and insignificant estimate. This is important in that it suggests that only firms seeking to establish a relationship with local governments matter. In column 4, I show that this result is robust even after controlling for the relative sales share of state-related firms. This insignificant estimate for the relative size of state-related firms seems surprising and counterintuitive. One might expect that state-related firms would be under local government control and counties with relatively larger state-related firms would be able to mobilize more resources in raising the 2001 benchmark. This result suggests that the informal relationship is even more important than the given institutional bonding between governments and state-related firms.

Recognizing that there may be unobservables biasing my results which cannot be addressed using a cross-sectional framework, I show that in Table 3 the point estimates starting from no controls in column 1 to full controls in column 4 stay significant and most importantly they all share similar magnitude. This suggests that concerns for bias due to unobservables perhaps are less of an issue. In the next subsection, I discuss my second favor, corporate income tax deduction.

5.3. Assistance from Favored Firms: Tax Deduction

In the previous subsection, I establish a positive relationship between state-related firm's access to credit and firms' assistance in the 2001 benchmark. Here I turn to another government favor: corporate income tax deduction. I expect private firms to be more sensitive to this favor and so in counties with more tax deduction for private firms, measured using an effective tax rate, governments can mobilize more private firms' assistance to raise the 2001 benchmark. Empirically, I expect a negative relationship between the previous effective tax rate for private firms and the relative ATD. In column 1 of Table 4, I show that the

average effective tax rate has a negative effect on the relative ATD, but it is imprecisely estimated. Since private firms should be more responsive to this favor, I separate the tax rate calculation according to firms' ownership. The result is shown in column 2. The estimates of state-related and private firms are very different: while the significant estimate for private firms is large and negative, the same estimate for state-related firms is close to 0 and insignificant. The large estimate for tax rate of private firms suggests that one standard deviation decrease in effective tax rate is associated with a 0.14 standard deviation increase in the relative ATD. These results suggest that a lower corporate income tax rate for private firms has a positive effect on raising the 2001 benchmark. In column 3 it is shown that this result is robust after controlling for the relative sales share of private firms. Furthermore, when adding debt leverage for state-related firms in column 4, the estimates of both favors are significant and the estimate for tax rate does not seem to change much. This result establishes that the two favors work independently. These results suggest that governments previously providing more corporate income tax deductions to private firms were able to receive more assistance from them.

As in the previous subsection, to address the concerns that unobservables may bias the results, in Table 5 I show the effect of effective tax rates from no control in column 1 to full control in column 4. The point estimates stay significant for all regressions and again share similar magnitude. These results again mitigate me the concerns of bias due to unobservables. To further validate the baseline results, I discuss robustness checks in the following subsection.

5.4. *Robustness Checks*

5.4.1. *Characteristics of Local Firms*

To capture government favors to firms, I use credit access and tax deductions. However, the variation of these two favors may be due to other unexplained characteristics of local firms or industries. In order to address this concern, I include additional controls of firms' characteristics to test the robustness of the baseline results.

The first one is the asset turnover ratio, defined as total sales divided by total assets, which is a measure for firms' ability to use their assets to generate sales or revenues. The second one is the profitability, defined as total profit divided by total assets, which not only measures firms' capacity to generate profit but it is also a widely used proxy for productivity. My last control is the industry composition based on three industries — resource, utility and manufacturing industry— following classification from the firm survey data. All three variables capture important characteristics of local firms that may be associated with credit

access and tax deduction. When calculating turnover ratio and profitability, I separate these variables according to their ownerships, state-related and private. The results are presented in Table 6.

I first examine the effect of debt leverage by adding each of these controls. In column 1 and 2, the estimates of state-related firms' debt leverage remain significant and the magnitude are very close to the baseline result in column 2 of Table 2. When controlling for industry shares as shown in column 3, the estimate remains significant but marginally smaller comparing with the one in the baseline. When turning to look at the effect of effective tax rate as shown in column 4 to 6, all three estimates are almost identical to the baseline estimate in column 2 of Table 4. Despite that the estimate in column 5 is imprecise estimated in column 5, the other estimates when controlling for turnover ratio in column 4 and industry composition in column 6 both remain significant. Overall these results suggest that my baseline findings are not driven by unexplained characteristics of local firms.³⁴

5.4.2. Quantile Regressions

In the previous section, I excluded the observations with top 1% relative ATD to address the concern of outliers. Alternatively, I can estimate the effect using quantile regressions. In Table 7, I show the effects at the 25, 50 and 75 percentiles. In column 1 - 3, the estimates of the debt leverage of state-related firms are smaller than the baseline estimate which evaluates at mean but remain significant for 25 and 75 percentiles. Furthermore, the effect is much greater at the higher percentile – the estimate at the 75 percentile is more than double comparing with its counterpart at the 25 percentile. This result indeed suggests that the magnitude of the estimate at mean is somewhat driven by larger values but the coefficients remain significant even at a lower percentile. The results for effective tax rate give a very similar pattern as shown in column 4-6. The estimate is significant at the 75 percentile and more than double comparing with the estimate at the 25 percentile. This result suggests that even though the effect is much larger in counties with greater ATD but my baseline findings are not driven by the outliers.

5.4.3. 2002 Tax Revenue and Selection Bias

One worry concerning about the relative ATD measure is whether the following year tax revenue were also affected by this reform and led to my findings. To address this issue, I repeat the same exercise as how I measure the outcome variable as regression (7) but

³⁴The significantly negative estimates of utility industry will be explained in section 5.4.4.

this time I not only drop observations of 2001 but also those of 2002.³⁵ I then repeat the calculation in (8) to construct this alternative outcome variable. The results are shown in column 1 and 2 of Table 8. Despite that the effect is marginally smaller for debt leverage of state-related firms and larger for effective tax rate of private firms, the results are consistent with my baseline findings.

My sample covers a third of all counties in China, 476 out of 1,600. Despite that the sample size is limited, it has a wide geographical distribution, including 112 prefectures across 25 provinces. I previously discussed that the limited data availability is due to idiosyncratic reasons, for example more detailed bookkeepings. But in order to fully address this concern for sample selection, I examine whether my baseline results can hold robust when conditioning only on 4 provinces that covers most or all counties, including Anhui, Hubei, Sichuan and Zhejiang. The results are shown in column 3 and 4 of Table 8. Using a subsample of only 209 counties, the effects are slightly larger for both debt leverage of state-related firms and effective tax rate of private firms comparing with those in the baseline but without significant difference. These results relieve my concerns for selection bias.

5.4.4. *Firms That Need No Reciprocity Provide No Assistance*

In the previous section, I discuss that firms provided assistance to governments when they rely on government favors. Another option to test this proposition is to check whether firms which do not rely on reciprocity to gain local government favors provide no assistance to raise the 2001 benchmark. In my firm survey data, firms are classified into resource, manufacturing and utility industries. The first two industries rely heavily on local governments' facilitations, such as targeted infrastructure, land and so on. Even though firms in the utility industries share same needs but they do not rely on reciprocal relationship with local governments to gain those favors.³⁶ For example, local electricity supply firms are managed by both a giant electricity agglomeration and a local government. However, the political power of the electricity agglomeration outweighs that of local governments since it enjoys a higher Party rank. Therefore, local governments need to cater for those firms in the utility industries rather than forming a reciprocal relationship with them. I expect that the larger is the utility industries, local governments would get less assistance of firms.

³⁵If I drop observations of both 2002 and 2003 when measuring relative ATD, the measure becomes incredibly noisy and therefore I compromise by dropping only those of 2002.

³⁶This is because firms in the utility industries have a unique administrative structure, called "Tiao-Kuai" (in Chinese). Put simply, this means that firms under this administrative structure have two principles. Giant state-owned firms or bureaucracies of the central government which have vertical lines of authority to coordinate functions, while local governments share horizontal lines of authority to coordinate according to the needs of the locality being governed.

In column 5 of Table 8, I show that counties with greater sales share of utility industries have lower relative ATD. The estimate for the share of a utility industry, -1.024, is negative and significant. This magnitude suggests that when there is one standard deviation increase in the share of utility industries, it has a nontrivial effect, of 0.2 standard deviation decreases in the relative ATD. This allows me to conclude that when firms do not rely on reciprocal relationship to gain local government favors, they do not provide assistance to governments.

5.4.5. *Firms' Assistance Or Strengthening Tax Enforcement?*

In the previous section, I claimed that firms receiving tax deductions as a favor from governments will assist in raising the 2001 benchmark. Nonetheless, a similar result can also emerge if local governments renege on previously promised low tax rates and raise the tax to statutory level based on the legal tax code. If this alternative mechanism existed, the rise in the 2001 benchmark would be due to tax enforcement rather than a result of firms' assistance. However, given that governments collected more tax, one should observe an abnormal growth in the tax revenue reported by private firms. In Figure 10 I plot private firm tax revenue over time. It does not show that in 2001 private firms paid abnormally high tax and this result allows me to exclude this alternative explanation. After establishing the baseline results, in the next section, I discuss the heterogeneous effects of local leadership turnover.

6. Dynamics of Reciprocity

6.1. *Previous Favored Firms under Leaving Leaderships*

Following my baseline results and the associated robustness checks, I confirm the existence of reciprocal relationships between governments and firms. In this section I move on to test whether this informal reciprocal relationship is personal or institutional. In order to do so, I focus on the scenario in which leaders are soon to leave office as predicted by my theoretical framework — when leaders are leaving, in the absence of future benefit, previously favored firms will be reluctant to assist in raising the 2001 benchmark.³⁷

To start with, as discussed in the data section I define the counties with leaving leaders as counties with both county party secretaries and county mayors leaving office in 2002 and

³⁷One alternative hypothesis is that because a leaving leader would more likely to appropriate due to the lack of accountability, similar to the term limit effect on the policy choices (Besley and Case (1995)). This is likely to be another channel - a channel of coercion. This is in fact an empirical question. Despite my results do not rule out this possible story but they seem to suggest that the reciprocity channel dominates the coercion one.

where the mayor is not promoted to party secretary in the same county. In testing this prediction, I assume that whether both county party secretary and mayor leave immediately in 2002 is predetermined and also public knowledge, in particular for local firms. This assumption is very likely to hold, since the reform was announced at the end of 2001 and an assigning order should already have been placed for those due to leave in a few months' time.³⁸ In Table 9, I show that counties with both leaders leaving and other counties are similar, except that the share of private firms is slightly larger for counties with leaving leaders.

In Table 10, I look at whether the effect of favors is diminished when leaders are soon to leave. In column 1, the estimate of the leaving-leader indicator is negative but imprecisely estimated. However, its non-trivial magnitude of the estimate suggests that a lower response may be due to limited firms' assistance. As results in column 2 and 3 shows, counties with their leaders soon to leave do not have assistance from state-related firms which previously received credit access as government favors. In fact, in these counties the effect of debt leverage is significantly lower than its effect in other counties and the sum of estimates for interaction and main effect for debt leverage is not significantly away from 0 with p-value around 11. The null effect of debt leverage for counties with leaving leaders suggests that governments cannot find assistance from previously favored state-related firms.

When I turn to the favor of tax deduction, the results are similar to those for the favor of access to credit. In column 4 and 5, the result also shows that counties with leaving leaders do not have private firms' assistance even if those firms have previously received favor of tax deduction. The estimate of effective tax rate in these counties is significantly higher from the one for other counties. Furthermore, the insignificant sum of estimates for interaction and main effect for effective tax rate suggests that the favor of tax deduction has no effect in counties when leaders are soon to leave; that is, governments cannot reach for assistance from previously favored private firms. These results, along with those on the favor of credit access, suggest that leaving leaders are less likely to find assistance from previously favored firms, which is consistent with my second prediction.³⁹ Therefore, I can conclude that this informal reciprocal relationship is personal rather than institutional.

³⁸Leaders' term is 5 years but leaders can still be reassigned before the term finishes. More than 80% of local leaders leave within the 5-year term with a peak at 4 years. Unfortunately, I cannot explore the variation of leaders' assignment because the logic behind the personnel management inside the Party remains a black box.

³⁹Furthermore, in the appendix B I find no evidence that my heterogeneous effects are driven by either of the leaders' leaving and suggest that both leaders matter.

6.2. Robustness Checks

6.2.1. Lack of Incentive or No Assistance from Firms

In the previous section, I showed that firms previously receiving favors do not assist governments in return when leaders are soon to leave office. However, in addition to the explanation which states that firms choose not to provide assistance when they do not expect future returns, it could also be the case that leaving leaders lack the incentive to respond to the reform. To address this concern, I argue that there is an institutional reason on why leaders are still incentivized to respond even when they are leaving. This is because raising the 2001 benchmark shows their alignment with the leaders in the prefectural governments who evaluate the county leaders' performance for promotion and also intend to keep tax local.⁴⁰

Furthermore, I use two observations to demonstrate that leaving leaders still have the incentive to respond. First, as shown in column 1 of Table 11, overall relative deviation from counties with leaders soon to leave office are no different from other counties.⁴¹ Second, as suggested by the *Corollary*, I show that when leaders are soon to leave, other taxes were still relabeled as corporate income tax to be used to raise the 2001 benchmark .

In previous discussion on constructing the main outcome of interest, firms' assistance, in Figure 6 I show the strong negative correlation between relabeling other taxes and the overall deviations in the 2001 corporate income tax revenue. I now turn to formally testing this relationship using regression and the results are shown in Table 11. In column 2, this negative relationship is shown to be robust and significant after adding the full set of controls and prefectural fixed effects. On average, relabeling other taxes accounts for about 18% of the total deviations. Furthermore, in columns 3 to 4, I show that when leaders are leaving, this channel is still utilized because the interaction is negative and insignificant. More importantly, despite that the interaction is imprecisely estimated, the effect of deviation of other taxes when leaders are soon leaving is close to 1 ($\approx 0.144 + 0.850$) with a 0.49 p-value when testing the sum equals to 1. This result suggests that this channel becomes the dominate source to raise the benchmark when leaders are leaving. This result not only demonstrates leaders' incentive to respond even when they are leaving, but it also implies that, as suggested by the *Corollary*, the leaving leaders resort to relabel more from other taxes when the firms do not provide assistance.

⁴⁰ This is supported by the fact that prefectural governments also have abnormal responses in raising the 2001 benchmark.

⁴¹ Overall relative deviation includes transfer from both channels - relabeling other tax resouces and finance from firms.

6.2.2. *Leaders' Leaving Could be Endogenous*

In the above analysis, I use ex post information on whether leavers actually leave or not to construct indicators for leaders soon to leave. However, whether leaders leaving or not could be a result of raising the benchmark and so the use of ex post information may create a problem of endogeneity. To address this concern, I use the fact that the reform was unanticipated so that I can treat leaders' time in office in 2001 as an exogenous variation. I use the leaders who are close to the end of their *de jure* term, fixed at 5 years, to proxy the likelihood of their leaving.⁴² I construct an indicator that takes a value of 1 if both county party secretary and mayor are at the end of their term by 2001, having served 4 years or more, and 0 otherwise.⁴³ Using this newly constructed indicator, I repeat the same exercise as those in Table 10. The results are shown in Table 12.

In column 1, counties with end-of-term leaders' relative ATD on average are similar to other counties. In column 2 and 3, I look at the heterogeneous effects of leaders' leaving on credit access for state-related firms, measured in debt leverage, on relative ATD. The results are similar to those in Table 10 in which the favor has no effect when leaders are expected to leave. Despite that the negative estimate of interaction is imprecisely estimated, its magnitude is close to the main effect for debt leverage and thus makes the sum almost 0. In column 4 and 5, a similar pattern is observed when looking at the effect of tax deductions for private firms, measured in the effective tax rate. While there is no effect from tax deduction when leaders are expected to leave judging by the sum of interaction and main effect for effective tax rate, other counties have a large and significant effect similar to those in column 5 of Table 10. My results show that the findings in the previous subsection are robust to this alternative definition of leaders due to leave. After testing my second prediction, I now turn to discuss my additional findings.

6.3. *Previous Favored Firms under New Leaderships*

In this section, I look whether firms that receive favors from previous governments will also assist local governments under new leadership. New leaders should have built limited reciprocal relationships with local firms. Therefore, this reform provides a unique opportunity to test if firms that were relied on favors from governments whether these firms are more likely to assist new leaders and thus to build up a relationship with leaders for future

⁴²The 5-year term is not fixed, for leaders can still be reassigned before the term finishes. More than 80% of local leaders leave within the 5-year term with a peak at 4 years. Unfortunately, I cannot explore the variation of leaders' assignment because the logic behind the personnel management inside the Party remains a black box.

⁴³Since the mayor is likely to be promoted to party secretary, to proxy the likelihood of both leaders' leaving I also ensure the current party secretary was not previously promoted from local mayor.

reciprocity. In the appendix A, based on my theory of reciprocal relationship, I modify the model and let firms to take the initiative and decide whether to assist local governments. The theory predicts that firms which rely more on government favors would be more willing to assist governments.

I first discuss the variation from an indicator for new leaders. It is likely that some unobservable factors which determine the turnover of local leadership also affect how much they the local leaders respond. However, as in my construction of an indicator for end-of-term leaders, I use the fact that the reform was unanticipated to treat those counties with new leaders as if they were determined exogenously. Here, counties with new leaders are defined as counties with both county party secretaries and mayors taking office in 2001 where the party secretary was not promoted from the mayor in the same county. In Table 13, I show that counties with both new leaders and other counties are very much balanced in all aspects. Now I turn to examine my empirical findings, shown in Table 14.

As shown in column 1, there is no significant difference in relative ATD between counties with new leaders and other counties. In column 2 and 3, I interact the state-related firms' debt leverage, as favors of credit access, with the indicator for new leaders. The result suggests that state-related firms which enjoyed credit access as favor under previous leadership will also assist new leaders. In column 4 and 5, I find that despite that the effect may be discounted but private firms that previously enjoyed greater tax deduction also assist new leaders. Overall my results suggest that firms that previously relied on government favors will also take the initiative to assist new leaders in order to build up a new reciprocal relationship to exchange for favors in the future.⁴⁴

7. Discussion: the government-firm relationship in China

The findings of this paper that local governments are in need of assistance from firms are especially important when it comes to explain the government-business relationship in China. I focus on three Chinese institutional features to discuss this implication. First, as previous papers (Maskin et al. (2000), Li and Zhou (2005), Xu (2011)) have pointed out, this is a country that uses many policy goals and quotas from the top to manage lower-tier governments and sets local governments to compete with each other to advance the careers of the leaders. Second, in order to achieve the sometimes unreasonable policy objectives or to compete against others, local governments often need to rely on informal assistance from firms, for example achieving economic indicators, absorbing unemployment and cutting

⁴⁴Furthermore, in the appendix B I find no evidence that my heterogeneous effects are driven by either of the leaders' leaving and suggest that both leaders matter.

down polluting emissions, and so on. In this paper, the need from firms' assistance to boost up corporate income tax revenue is another example of this kind. Third, not only local governments need assistance from firms, but they also have many resources to offer as an exchange. The decentralizing institution endows local governments with control over business resources, including capital, land and other public goods (Li et al. (2008), Firth et al. (2009), Bai et al. (2014)). Taking these features together, local governments are highly incentivized to build up crony economies due to the institutional design. While the previous literature mainly focused on the first and the third aspects, this paper is one of the first studies to offer systematic evidence on the second and thus to complete this picture in explaining the rise of institutionally-caused crony capitalism in China.

8. Conclusion

To better understand how connections work and thus their benefits and costs, in this study I use another perspective to look at government-firm connections through their two-way interactions. Using an event study in China, instead of focusing on firms' gain, I examine whether governments can mobilize more assistance from those firms to which they have already given favors. But it is not easy to do so, since favors are usually traded in secrecy or simply cannot be quantified. Yet this event study not only enabled me to measure the value that governments (or politicians) attribute to connections but also broadened my understanding of other possible forms of return. I summarize my findings as follows.

In order to respond to a central-local tax-sharing reform, I found a robust positive correlation between government favors to firms before the reform, credit access and tax deductions, and firms' assistance to governments in responding the reform. Furthermore, I found that this reciprocal relationship between governments and firms is personal rather than institutional. When leaders are about to leave office, I find that previously favored firms do not provide assistance, because no future gain can be expected from leaders once they have left. The results are consistent with the predictions derived from a theory of reciprocal relationships between governments and firms. As an additional result, I found evidence suggesting that private firms took the initiative to offer more assistance to new leaders in exchange for gains from future reciprocity.

The findings of this study have implications beyond the Chinese context. First, this unique setting allows me to be one of the very few studies to quantify that governments can gain from their connection with firms and to examine the two-way interaction between them. There are also other examples, such as campaign contribution (Claessens, Feijen and Laeven (2008) and Sukhtankar (2012)) and lobby activities (Blanes i Vidal, Draca and

Fons-Rosen (2012)). But here I stress that, as the second contribution, firms' favors to governments are not necessarily personal transfers, e.g. corruption; in some circumstances firms can contribute to achieving governmental objectives. This implication corresponds to the literature on developing states in Asia, including Japan, South Korea and Taiwan, where governments form close relationships with firms in order to seek formal or informal assistance to attain their overall developmental objectives (Woo-Cumings (1999) and Evans (1995)). Third, by revealing how connections work behind the scenes, I show that, unlike a spot transaction, connections between governments and firms can be dynamic relationships to exchange favors between each other intertemporally. This logic also brings in important policy implications. Policymakers should bear in mind that a policy that leaves room for governments to seek assistance from firms to fulfil their objectives would be highly likely to promote cronyism. Furthermore, even though a frequent turnover of leaders may hold back cronyism, it also has a downside – it costs firms more resources to build up new connections, which can be socially wasteful.

Finally, the findings in this study advance our understanding of the government-business relationship in China: first, even when state-related firms share institutional bonding with local governments, local governments cannot mobilize assistance from state-related firms without informal relationships. Second, as stated in the introduction, in authoritarian regimes, such as China's, higher tiers of government often dictate local government policy objectives which involve unreasonable missions or quotas. To carry out these tasks, the local governments often seek assistance of local firms. This gives local governments the incentive to invest in their relationships with local firms and to create local crony economy. Third, unlike other studies that focus on the party secretary, the findings about leadership turnover suggest when looking at connections with firms one should take the county mayor into account together with the party secretary. Finally, the two measures for favors seem to capture the variation of government-firm connections and can be used for future study on cronyism in China.

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Appendix A. Reciprocal Relationship Without Past

Now I look at leaders who have newly taken office. If leaders are new to office, it is likely that no previous reciprocal relationships exist with firms. This suggests that I should amend my framework to look at whether firms take the initiative in offering favors by raising the 2001 benchmark. Assuming that Government is the first to receive favors, I solve for $\bar{V}_R^k(\bar{x})$, $k \in \{G, L\}$. Similarly, I use (1) and (2), which gives

$$\bar{V}_R^F(\bar{x}) = \frac{1}{2(1 - \pi\delta)}M(\bar{x}) + \frac{(1 - \pi\delta)(2\theta - 1)}{2(1 + (\pi\delta)^2(2\theta - 1))}L(\bar{x}) \quad (8)$$

$$\bar{V}_R^G(\bar{x}) = \frac{1}{2(1 - \pi\delta)}M(\bar{x}) - \frac{(1 - \pi\delta)(2\theta - 1)}{2(1 + (\pi\delta)^2(2\theta - 1))}L(\bar{x}) \quad (9)$$

where $M(\bar{x}) = \int_0^{\bar{x}}(z - c(z))dF(z)$ and $L(\bar{x}) = \int_0^{\bar{x}}(\omega + c(\omega))dF(\omega)$. In this setting, since $\theta > \frac{1}{2}$, then I still have $\bar{V}_R^F(\bar{x}) > \bar{V}_R^G(\bar{x})$. But, compared with the previous case, in which Firm first requested for favors, the difference between $\bar{V}_R^F(\bar{x})$ and $\bar{V}_R^G(\bar{x})$ is smaller. To sustain a reciprocal relationship, the following condition for Firm needs to hold.

$$-c(\bar{x}) + \delta \cdot 0 + \delta^2\bar{V}_R^F \geq 0 \quad (10)$$

For Government to stay in a reciprocal relationship,

$$0 + \delta \cdot -c(\bar{x}) + \delta^2\bar{V}_R^G \geq 0 \quad (11)$$

All else being equal, $\bar{V}_R^F(\bar{x})$ increases in θ . This suggests that when Firm is needier, the value of its continuation is higher. Thus, under general conditions when $\pi\delta\bar{V}_R^G > (\pi\delta)^2\bar{V}_R^F$, a higher θ allows a greater \bar{x} to satisfy both (10) and (11) conditions in order to sustain a reciprocal relationship; I have the following hypothesis.

Prediction 3. (*Reciprocity Without Past*) *When leaders are new, firms which rely more on governments' favors will take the initiative by offering more favors.*

In counties with new leaders, previous favors no longer matter. Those new leaders cannot find assistance from firms which received favors from previous governments. However, firms that are sensitive to government favors might provide assistance in exchange for future reciprocity. While state-related firms share institutional bonding with governments, private firms rely more on this informal relationship. Empirically, I expect that private firms are more likely to offer assistance when leaders are new to office. Furthermore, previous favors should have no effect on relative ATD.

Appendix B. Which Leader Matters?

B.1. Leaving Mayor or Leaving Party Secretary

In constructing an indicator for counties where leaders are due to leave, unlike the literature that mainly focuses on party secretary turnover, I take into account both the mayor and party secretary post. To test whether this innovation is valid, in theory I should include a quadruple interaction on the criteria for leaving leaders, a leaving mayor without promoting to party secretary and a leaving party secretary. In practice, however, the limited sample size sets a barrier against this practice. Instead, I look individually at the two leaders' leaving. I start by looking at mayors soon to leave office. The results are shown in Table A1.

In column 1 of panel A, counties with leaving mayors respond no differently from other counties. The estimates in column 2 and 3 do align with my prediction that the measure for the favor of credit access, debt leverage, of state-related firms has no effect in counties where mayors are soon to leave office but the effect exists for all other counties. However, the same pattern does not apply to the measure for tax deduction, the effective tax rate, of private firms. As shown in column 4 and 5 the estimate for interaction is negative, an opposite sign that is predicted by the theory. When I turn to examine the effect of party secretaries soon to leave office, I use the variation of party secretaries leaving and no mayors promoted to fill the office. This is mainly to avoid the possibility that mayors soon to be promoted to party secretary may bias the effect of a leaving party secretary. In column 1 of panel B, similarly, counties with leaving party secretaries respond no differently from other counties. In column 2 and 3 the results suggest that a leaving party secretary may moderate the effect of debt leverage of state-related firms. However, I don't have a significant estimate for the interaction term. In column 4 and 5, the signs of the estimates do correspond to those in Table 10. However, the interaction term is imprecisely estimated.

To sum up, I find no evidence that my heterogeneous effects are driven by either of the leaders' leaving and this suggests that taking both leaders into account is a valid innovation when examining their relationships with firms.

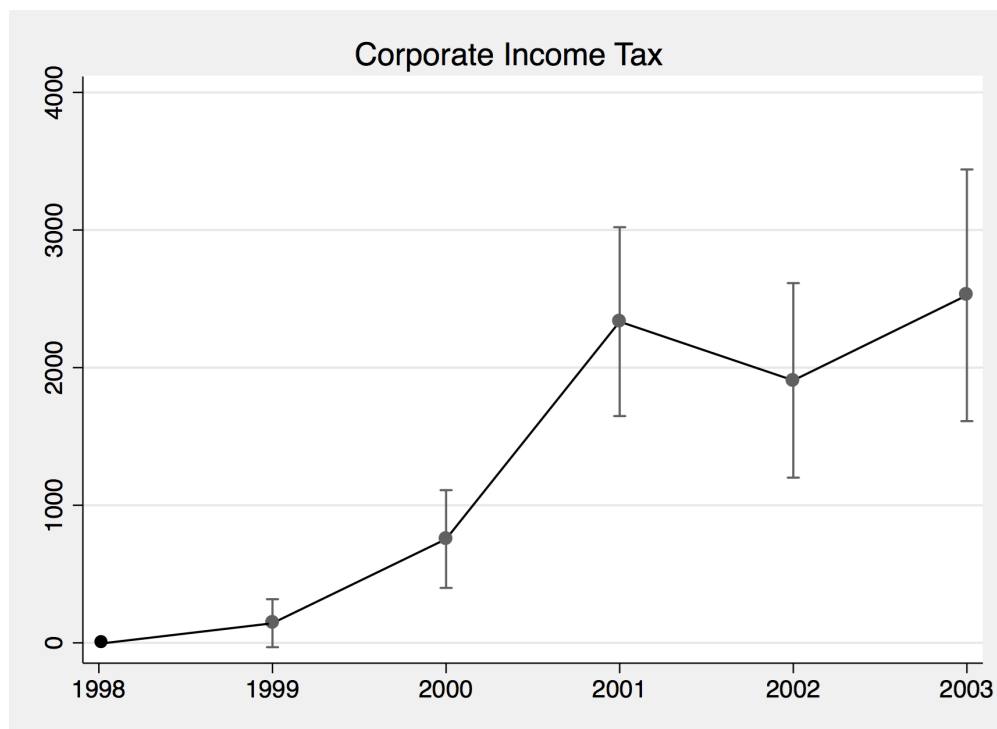
B.2. New Mayor or New Secretary

As in the last part of the previous section, I again look at which leader matters – mayors or party secretaries. I start by looking at the new mayor. To do this, I use the variation from counties with new mayors and party secretaries who were not promoted from the mayor office. This is to avoid the possibility that my estimates may be biased because the party secretaries promoted from mayor office still own mayor power. In column 1 of panel A

in Table A2, I show that counties with new mayors do not respond differently from other counties. The results in column 2 and 3 suggest that state-related firms that were previously favored with credit access do not assist local governments differently when only the mayors are newly arrived. The same results can be found in column 4 and 5 when interacting the new mayor indicator and effective tax rate of private firms- private firms previously favored with tax deduction do not assist local governments differently when only the mayors are newly arrived. In panel B of Table A2, I repeat the same exercise as in panel A but this time I focus on the effects for new party secretary. The results are very similar to those in panel A. Firms that were previously favored through better credit access or greater tax deduction do not assist local governments differently when only the party secretaries are newly arrived. Overall these results suggest that no matter which leader, county party secretary or mayor, is new to office, previously favored firms will choose to assist no differently from their assistance to county governments without new leaderships.

Appendix C. Figure

Figure 1: Corporate Income Tax (1998 - 2003)



Notes: Using observations from 476 counties, this figure plots the regression coefficients of year dummies from 1998 to 2003 (1998 as base year) with corporate income tax (in 10,000 RMB) as the outcome variables. The regression controls for Ln GDP per capita and county fixed effects. Robust standard errors are clustered at the county level. The corporate income tax data is collected from various local fiscal and tax yearbooks (see data appendix for the sources). GDP data is from Province, prefecture, and county fiscal statistics. Details on the data source can be found in the Data section.

Figure 2: Other Economics Indicators (1998 - 2003)

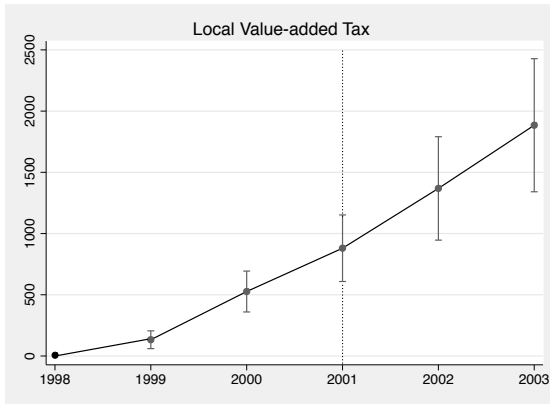


Figure 2.A

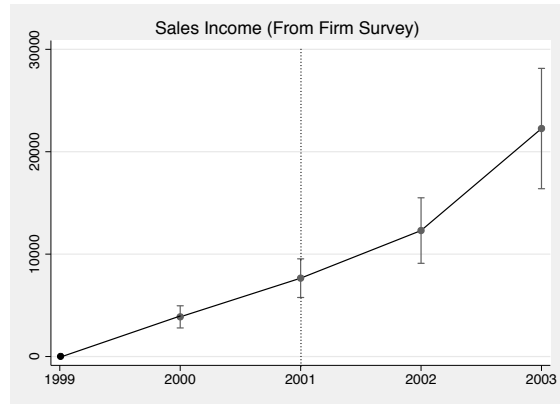


Figure 2.B

Notes: Figure 2.A plots the regression coefficients of year dummies from 1998 to 2003 (1998 as base year) with local value-added tax (in 10,000 RMB) from 476 counties. Figure 2.B plots the regression coefficients of year dummies from 1999 to 2003 (1999 as base year) with surveyed firms' aggregate sales income (in 10,000 RMB) from 476 counties. The regression controls for Ln GDP per capita and county fixed effects. Robust standard errors are clustered at the county level. Local GDP and VAT data are from Province, prefecture, and county fiscal statistics. Data on sales income is from Annual Surveys of Industrial Production. Details on the data source can be found in the Data section.

Figure 3: How Firms Assist Local Governments

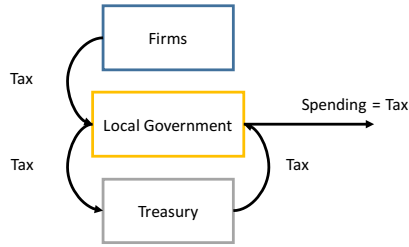


Figure 3.A

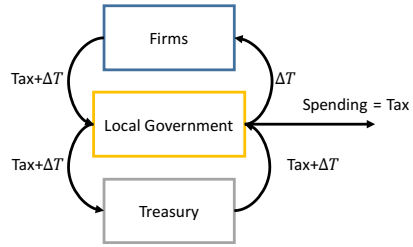
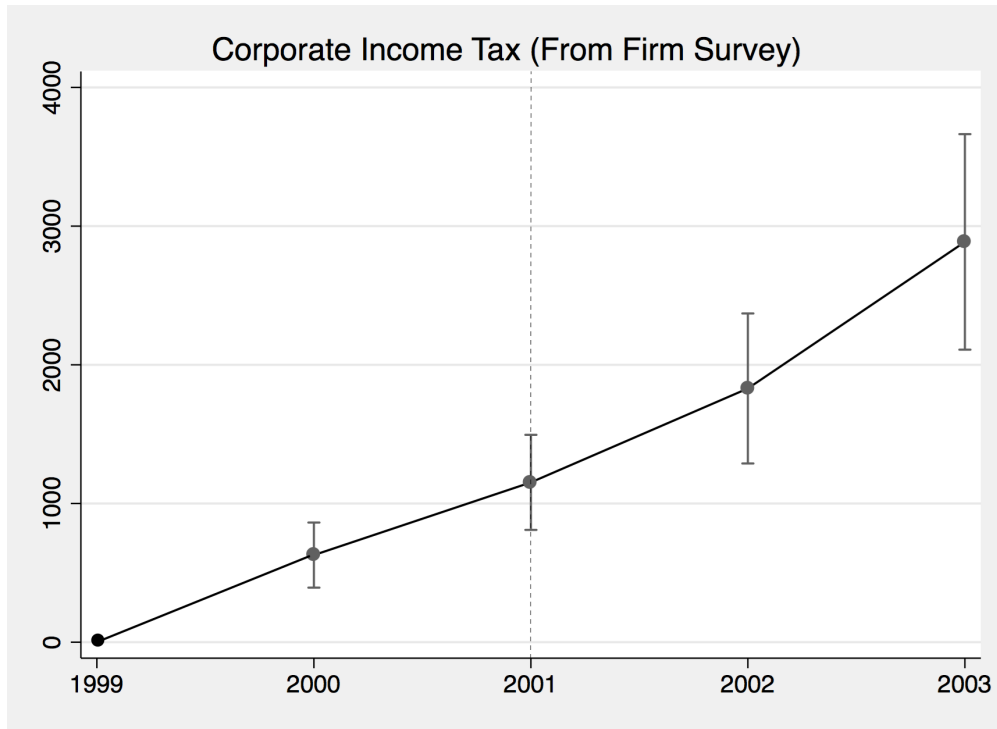


Figure 3.B

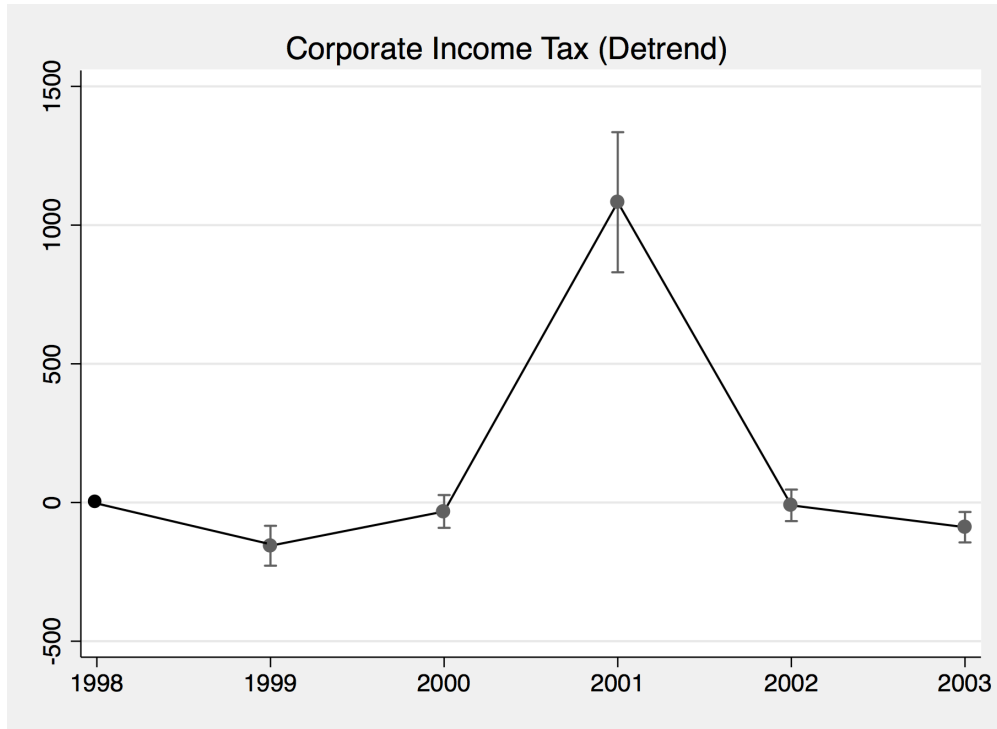
Notes: These figures show how firms may assist local governments in raising the 2001 tax revenue. In any other normal times, shown in Figure 3.A, firms pay tax to local governments and the revenue is then remitted to Treasury before being redistributed back to the governments. However, in November and December 2001 as shown in Figure 3.B, firms paid tax and also other transfers. The money was labelled as corporate income tax and remitted to Treasury before they came back to the local governments. Governments kept the tax and returned all the extra money back to the firms.

Figure 4: Corporate Income Tax (From A Large-scale Firm Survey)



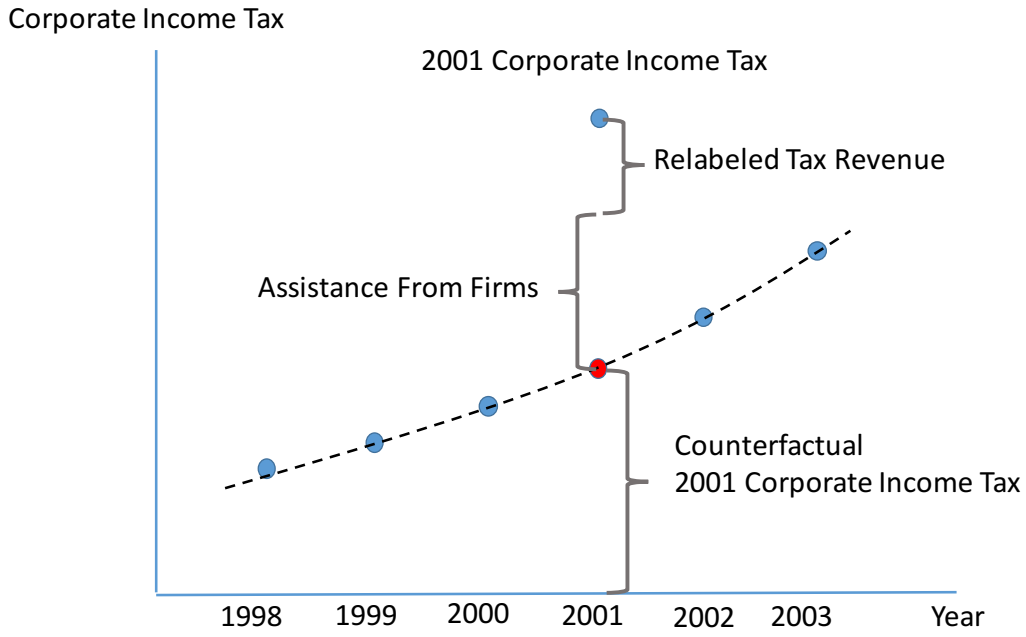
Notes: Using observations from 476 counties, this figure plots the regression coefficients of year dummies from 1999 to 2003 (1999 as base year) with corporate income tax from Annual Surveys of Industrial Production. The regression controls for Ln GDP per capita and county fixed effects. Robust standard errors are clustered at the county level. GDP data is from Province, prefecture, and county fiscal statistics. Details on the data source can be found in the Data section.

Figure 5: Corporate Income Tax Deviation from Trend



Notes: Taking corporate income tax to remove individual county quadratic trend (excluding 2001), in this figure I plot the regression coefficients of the detrend residuals on year dummies from 1998 to 2003 (1998 as base year). The regression controls for Ln GDP per capita and county fixed effects. Robust standard errors are clustered at the county level. Corporate income tax data is collected from various local fiscal and tax yearbooks. GDP data is from Province, prefecture, and county fiscal statistics. Details on the data source can be found in the Data section.

Figure 6: Decomposition of 2001 Corporate Income Tax



Notes: This figure shows that the deviation of 2001 corporate income tax consists of transfers from two different channels: (1) relabeling other tax revenue and (2) transfer from firms.

Figure 7: Relabeling Other Taxes — A Channel to Response

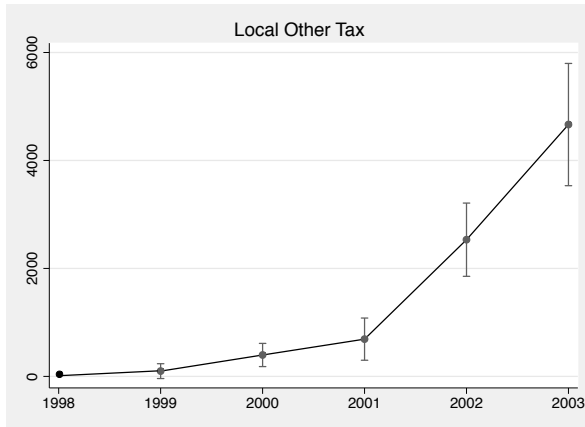


Figure 7.A

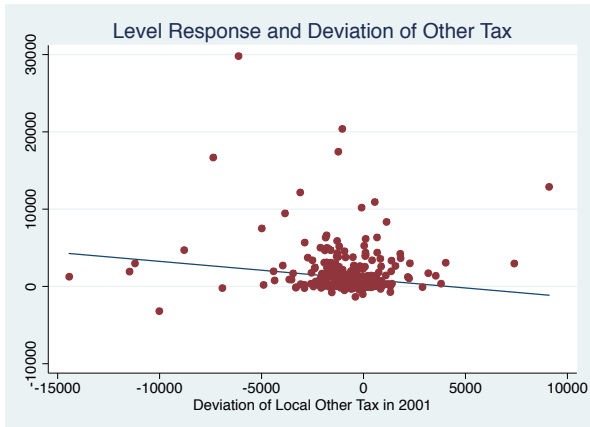
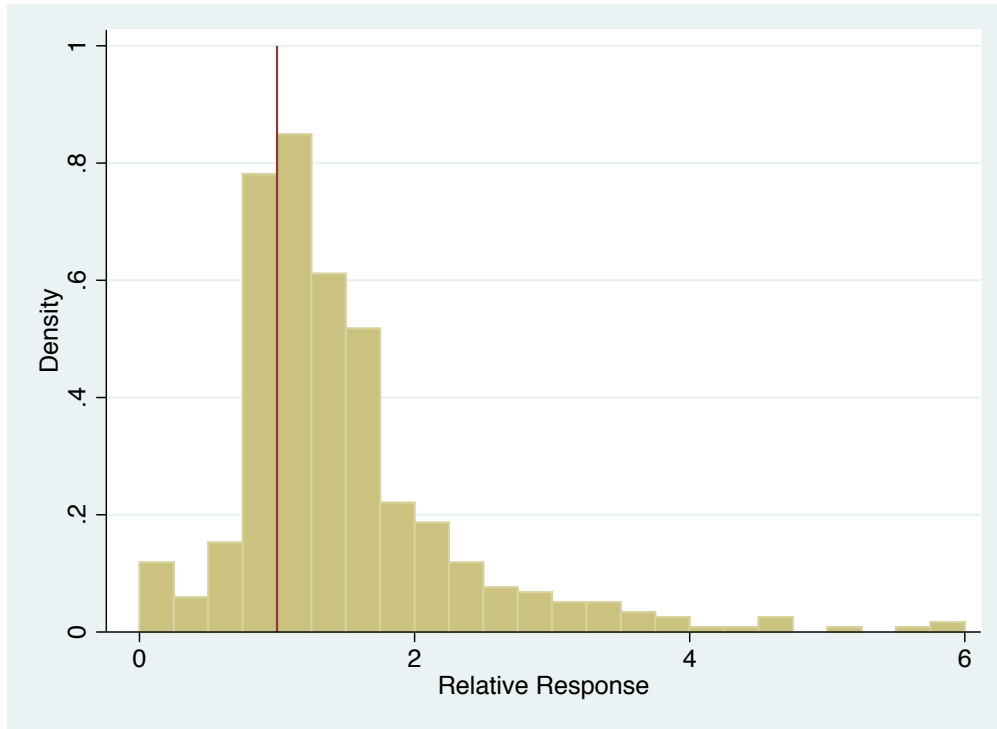


Figure 7.B

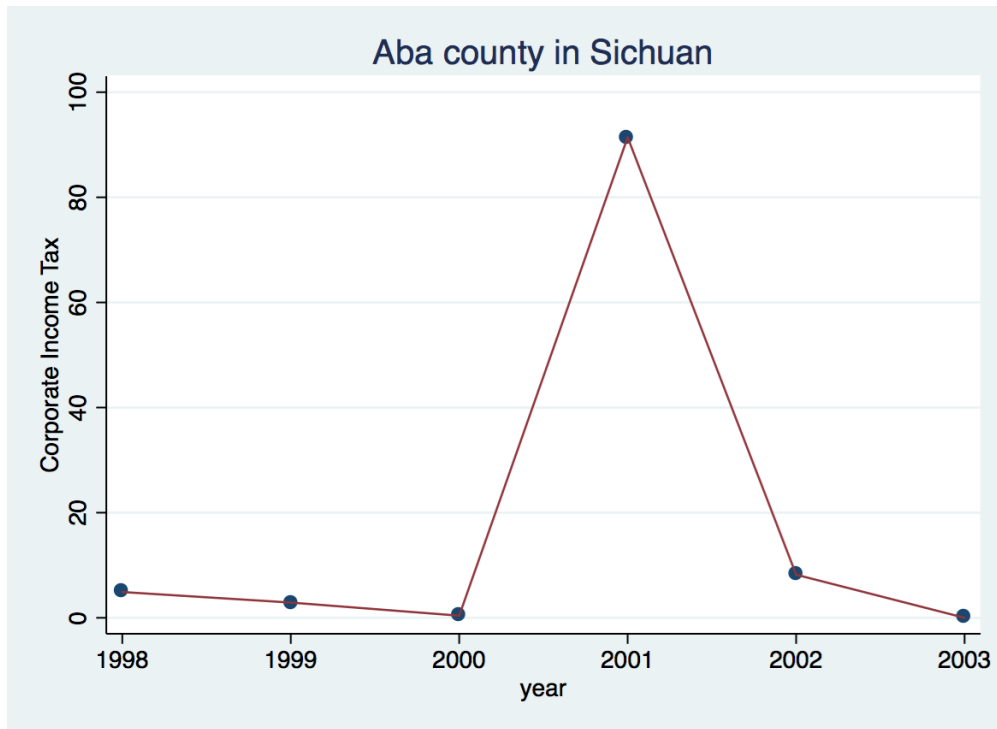
Notes: Figure 7.A plots the regression coefficients of year dummies from 1998 to 2003 (1998 as base year) with local other tax from 476 counties, including business tax, agriculture tax and other fees. The regression control for Ln GDP per capita and county fixed effects. Robust standard errors are clustered at the county level. In Figure 7.B, I scatterplot the absolute deviations in the 2001 corporate income tax and off-trend deviation of the other taxes. Business tax, agriculture tax, other fees, and GDP data are from Province, prefecture, and county fiscal statistics. Details on the data source can be found in the Data section.

Figure 8: Distribution of Relative ATD Measure



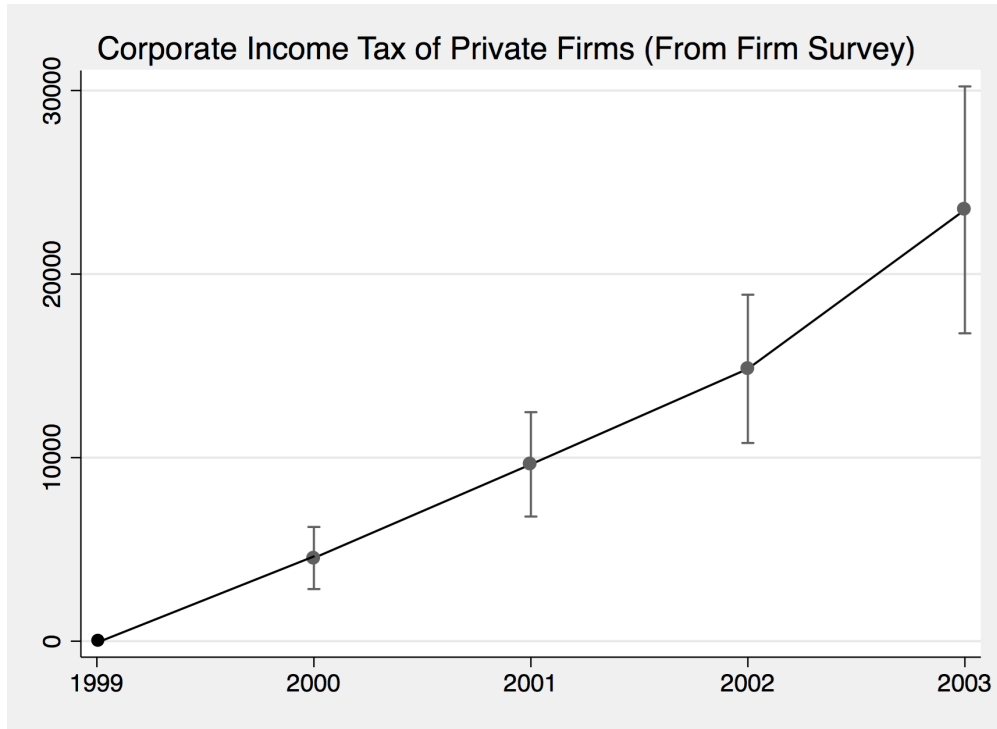
Notes: This figure shows the distribution of my main outcome variable, the relative ATD in the 2001 benchmarks. Red line indicates the value of relative ATD being 1. My observations are 473 counties across 112 prefectures and 25 provinces in China. Details of constructing relative ATD can be found in the text of data section.

Figure 9: Relative ATD for Aba County in Sichuan



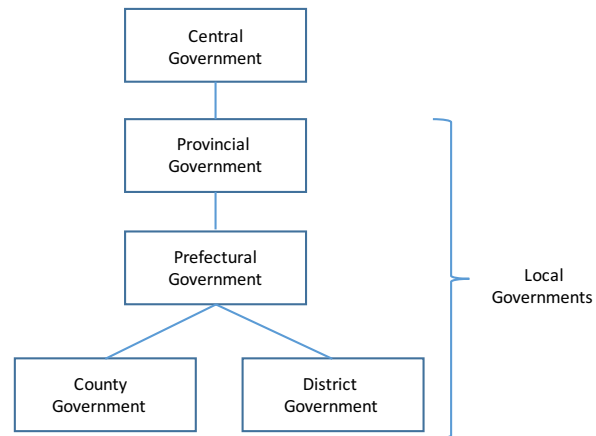
Notes: This figure I plot the corporate income tax revenue of Aba county in Sichuan from 1998 to 2003. The data is collected from Aba County Tax Authority Year Books.

Figure 10: Corporate Income Tax of Private Firms



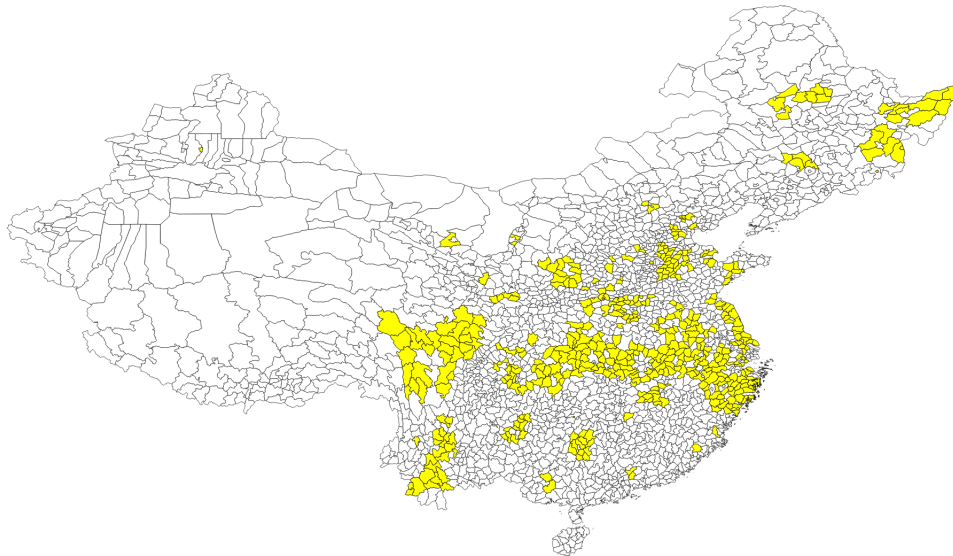
Notes: Using observations from 476 counties, this figure plots the regression coefficients of year dummies from 1998 to 2003 (1998 as base year) with corporate income tax of private firms from Annual Surveys of Industrial Production. The regression controls for Ln GDP per capita and county fixed effects. Robust standard errors are clustered at the county level. GDP data is from Province, prefecture, and county fiscal statistics. Details on the data source can be found in the Data section.

Figure 11: Government Hierarchy in China



Notes: Hierarchy of Chinese government: starting from the central government, provincial governments, prefecture governments, and followed by county and district governments.

Figure 12: Counties in which data are available



Notes: This map show counties (in yellow) in which data on corporate income taxes is available.

Appendix D. Tables

Table 1A: Descriptive statistics

| Variables | Obs. | Mean | Std Dev. | Max | Min |
|------------------------------------|------|-------|----------|--------|---------|
| Relative ATD | 471 | 1.47 | 0.85 | 5.99 | 0 |
| Debt leverage (All firms) | 471 | 0.69 | 0.16 | 1.31 | 0.02 |
| Debt leverage (State-related) | 471 | 0.71 | 0.18 | 2.03 | 0.02 |
| Debt leverage (Private) | 471 | 0.59 | 0.26 | 1.62 | 0 |
| Debt leverage (Central-state) | 471 | 0.14 | 0.30 | 1.67 | 0 |
| Debt leverage (Utility industry) | 471 | 0.50 | 0.23 | 1.38 | 0 |
| Effective tax rate (All firms) | 471 | 0.05 | 0.05 | 0.67 | 0 |
| Effective tax rate (Private) | 471 | 0.05 | 0.05 | 0.45 | 0 |
| Effective tax rate (State-related) | 471 | 0.05 | 0.04 | 0.36 | 0 |
| Sales share (State-related) | 471 | 0.59 | 0.26 | 1.00 | 0.02 |
| Sales share (Private) | 471 | 0.32 | 0.23 | 0.92 | 0 |
| Sales share (Utility industry) | 471 | 0.12 | 0.17 | 1.00 | 0 |
| Ln GDP per capita | 471 | 8.54 | 0.72 | 10.99 | 5.55 |
| Normalized corp. income tax | 471 | 0.00 | 0.01 | 0.07 | 0 |
| Previous fiscal pressure | 471 | 2.45 | 3.22 | 44.26 | 0.84 |
| Absolute deviation | 471 | 1,087 | 2,575 | 29,801 | -3,200 |
| Deviation of other taxes | 471 | -574 | 1,655 | 9,103 | -14,433 |

Notes: This table presents descriptive statistics for variables used in the analysis. The unit of observation is county in year 2001. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Sales share* measures the size of firms for each type; *Normalized corporate income tax* is the previous corporate income tax normalized by GDP; *Fiscal pressure* captures the extent of tightness in fiscal budget; *Absolute deviation* is a measure on the absolute deviations in the 2001 corporate income tax from trend; *Deviation of other tax* measures how much fiscal resources were transferred to raise the 2001 corporate income tax. All firm-related variables are taken average from 1999 to 2000 and constructed from Annual Surveys of Industrial Production. Corporate Income tax are collected from various local fiscal or tax yearbooks. All other taxes and GDP data are from Province, prefecture, and county fiscal statistics. Details on the data source can be found in the Data section.

Table 1B: Descriptive statistics (continue)

| Variables | Obs. | Mean | Std Dev. | Max | Min |
|---------------------------------------|------|------|----------|-----|-----|
| Indicator for leaving leaders | 440 | 0.08 | 0.27 | 1 | 0 |
| Indicator for end-of-term leaders | 440 | 0.09 | 0.29 | 1 | 0 |
| Indicator for leaving mayor | 440 | 0.21 | 0.41 | 1 | 0 |
| Indicator for leaving party secretary | 440 | 0.14 | 0.35 | 1 | 0 |
| Indicator for new leaders | 441 | 0.08 | 0.27 | 1 | 0 |
| Indicator for leaving mayor | 441 | 0.15 | 0.36 | 1 | 0 |
| Indicator for leaving party secretary | 441 | 0.14 | 0.35 | 1 | 0 |

Notes: This table presents descriptive statistics for variables used in the analysis. The unit of observation is county in year 2001. *Indicator for new leaders* is an indicator that takes value of 1 if both county mayor and party secretary are new to office and 0 otherwise; *Indicator for leaving leaders* is an indicator that takes value of 1 if both county mayor and party secretary are soon to leave office and 0 otherwise; *Indicator for new mayor* is an indicator that takes value of 1 if county mayor just arrive in office and without party secretary promoted from mayor and 0 otherwise. *Indicator for new party secretary* is an indicator that takes value of 1 if county party secretary just arrive in office and without being promoted from mayor and 0 otherwise; *Indicator for end-of-term leaders* is an indicator that takes value of 1 if both county mayor and party secretary are at the end of term in office and 0 otherwise; *Indicator for leaving mayor* is an indicator that takes value of 1 if county mayor is soon to leave and without promoting to party secretary and 0 otherwise. *Indicator for leaving party secretary* is an indicator that takes value of 1 if county party secretary is soon to leave and without mayor promoting to party secretary and 0 otherwise. Data on local political leaders are collected from Provincial Yearbooks. Details on the data source can be found in the Data section.

Table 2: Relative ATD and credit access

| VARIABLES | (1) | (2) | (3) | (4) |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|
| | | Relative ATD | | |
| Debt leverage (All firms) | 0.759** (0.353) | | | |
| Debt leverage (State-related) | | 0.816** (0.333) | 0.819** (0.337) | 0.817** (0.330) |
| Debt leverage (Private) | | -0.211 (0.183) | -0.211 (0.184) | -0.204 (0.187) |
| Debt leverage (Central-state) | | | 0.0316 (0.144) | |
| Sales share (State-related) | | | | 0.0750 (0.215) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ |
| Obs. | 471 | 471 | 471 | 471 |
| R^2 | 0.415 | 0.422 | 0.422 | 0.422 |

Notes: This table presents estimates of debt leverage (a measure for credit access) on relative ATD in the 2001 benchmark. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Sales share* measures the size of firms for each type. All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), Ln GDP per capita and prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table 3: Robustness check: credit access as a favor

| VARIABLES | (1) | (2) | (3) | (4) |
|-------------------------------|---------------------|---------------------|----------------------|----------------------|
| | | Relative ATD | | |
| Debt leverage (State-related) | 0.976*** (0.354) | 0.941*** (0.334) | 0.874** (0.348) | 0.816** (0.333) |
| Debt leverage (Private) | -0.175 (0.215) | -0.157 (0.197) | -0.171 (0.195) | -0.211 (0.183) |
| Ln GDP per capita | | -0.286** (0.112) | -0.299*** (0.107) | -0.338*** (0.110) |
| Normalized corp. income tax | | | -12.15* (6.627) | -13.70** (6.272) |
| Previous fiscal pressure | | | | -0.0280 (0.0209) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ |
| Obs. | 471 | 471 | 471 | 471 |
| r^2 | 0.395 | 0.412 | 0.418 | 0.422 |

Notes: This table presents robustness check on estimates of debt leverage of state-related firms on relative ATD in the 2001 benchmark. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Normalized corporate income tax* is the previous corporate income tax normalized by GDP; *Fiscal pressure* captures the extent of tightness in fiscal budget. All regressions control for prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table 4: Relative ATD and tax deduction

| VARIABLES | (1) | (2) | (3) | (4) |
|------------------------------------|-------------------|--------------------|--------------------|--------------------|
| | | Relative ATD | | |
| Effective tax rate (All firms) | -0.509 (1.512) | | | |
| Effective tax rate (Private) | | -2.246* (1.198) | -2.217* (1.241) | -2.003* (1.128) |
| Effective tax rate (State-related) | | 0.144 (1.139) | 0.157 (1.148) | 0.188 (1.104) |
| Sales share (Private) | | | -0.0565 (0.248) | |
| Debt leverage (State-related) | | | | 0.754** (0.322) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ |
| Obs. | 471 | 471 | 471 | 471 |
| R^2 | 0.405 | 0.416 | 0.416 | 0.429 |

Notes: The table presents estimates of effective corporate income tax rate (a measure for tax deduction) on relative ATD in the 2001 benchmark. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Sales share* measures the size of firms for each type. All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), and Ln GDP per capita. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table 5: Robustness check: tax deduction as a favor

| VARIABLES | (1) | (2) | (3) | (4) |
|------------------------------------|----------------------|---------------------|---------------------|---------------------|
| | | Relative ATD | | |
| Effective tax rate (Private) | -2.944*** (1.100) | -2.504** (1.150) | -2.289* (1.197) | -2.246* (1.198) |
| Effective tax rate (State-related) | -0.157 (1.314) | 0.0839 (1.302) | 0.473 (1.401) | 0.144 (1.139) |
| Ln GDP per capita | | -0.243** (0.122) | -0.265** (0.118) | -0.307** (0.121) |
| Normalized corp. income tax | | | -12.53** (5.835) | -13.67** (5.899) |
| Previous fiscal pressure | | | | -0.0329 (0.0245) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ |
| Obs. | 471 | 471 | 471 | 471 |
| R^2 | 0.393 | 0.405 | 0.411 | 0.416 |

Notes: This table presents robustness check on estimates of effective tax rate of private firms on relative ATD in the 2001 benchmark. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Normalized corporate income tax* is the previous corporate income tax normalized by GDP; *Fiscal pressure* captures the extent of tightness in fiscal budget. All regressions control for provincial fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table 6: Robustness check: other firm characteristics

| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) |
|------------------------------------|--------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| | Relative ATD | | | | | |
| Debt Leverage (State-related) | 0.817** (0.335) | 0.830** (0.333) | 0.692* (0.349) | | | |
| Debt Leverage (Private) | -0.220 (0.188) | -0.218 (0.179) | -0.233 (0.200) | | | |
| Effective tax rate (Private) | | | | -2.238* (1.201) | -2.123 (1.292) | -2.334* (1.263) |
| Effective tax rate (State-related) | | | | 0.161 (1.120) | 0.157 (1.081) | -0.361 (0.869) |
| Turnover ratio (State-related) | ✓ | | | ✓ | | |
| Turnover ratio (Private) | ✓ | | | ✓ | | |
| Profitability (State-related) | | ✓ | | | ✓ | |
| Profitability (Private) | | ✓ | | | ✓ | |
| Sales share (Utility industry) | | | ✓ | | | ✓ |
| Sales share (Resource industry) | | | ✓ | | | ✓ |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 471 | 471 | 471 | 471 | 471 | 471 |
| R^2 | 0.422 | 0.424 | 0.436 | 0.416 | 0.417 | 0.436 |

Notes: The table presents robustness checks on estimates of favors on the relative ATD. Columns (1) - (3) present estimates on debt leverage when controlling for turnover ratio, profitability or industry shares. Columns (4) - (6) present estimates on effective tax rate when controlling for turnover ratio, profitability or industry shares. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Sales share* measures the size of firms for each type; *Turnover ratio* measures the efficiency on how assets are used to generate sales income; *Profitability* tries to capture the variation of productivity of local firms, defined by profit normalizing by assets. All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), Ln GDP per capita and prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table 7: Robustness check: effects of favors in quantile regression

| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) |
|--|--------------------|----------------------|--------------------|-------------------|-------------------|----------------------|
| | Relative ATD | | | | | |
| Percentile | 0.25 | 0.50 | 0.75 | 0.25 | 0.50 | 0.75 |
| Panel A: Quantile regression with prefecture fixed-effects | | | | | | |
| Debt leverage (State-related) | 0.304** (0.132) | 0.425 (0.407) | 0.788** (0.314) | | | |
| Debt leverage (Private) | -0.0659 (0.111) | -8.19e-06 (0.372) | -0.264 (0.277) | | | |
| Effective tax rate (Private) | | | | -0.970 (0.998) | -1.592 (1.185) | -2.120*** (0.760) |
| Effective tax rate (State-related) | | | | 0.469 (1.076) | -0.283 (1.195) | -1.130* (0.640) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 471 | 471 | 471 | 471 | 471 | 471 |
| R^2 | 0.287 | 0.351 | 0.338 | 0.272 | 0.344 | 0.329 |

Notes: The table presents estimates of two favors on the relative ATD using quantile regressions. Columns (1) - (3) present estimates of debt leverage (measure for favor of credit access) in 25th, 50th, and 75th percentile. Columns (4) - (6) present estimates of effective tax rate (measure for favor of tax deduction) in 25th, 50th, and 75th percentile. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), and Ln GDP per capita. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table 8: Robustness check: sample selection

| VARIABLES | (1) | (2) | (3) | (4) | (5) |
|------------------------------------|----------------|----------|------------------|-----------|----------|
| | Relative ATD | | | | |
| | Excluding 2002 | | Only 4 Provinces | | |
| Debt leverage (State-related) | 0.595* | | 1.174* | | |
| | (0.335) | | (0.662) | | |
| Debt leverage (Private) | -0.191 | | -0.0621 | | |
| | (0.263) | | (0.478) | | |
| Effective tax rate (Private) | | -3.506** | | -4.163*** | |
| | | (1.421) | | (1.512) | |
| Effective tax rate (State-related) | | -0.657 | | 1.134 | |
| | | (1.156) | | (2.404) | |
| Sales share (Utility Industry) | | | | | -1.024** |
| | | | | | (0.416) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 470 | 470 | 209 | 209 | 471 |
| R^2 | 0.437 | 0.449 | 0.390 | 0.397 | 0.422 |

Notes: The table presents robustness checks on estimates of favors on the relative ATD. Columns (1) - (2) present estimates of favors when conditioning only on 4 provinces — Anhui, Hubei, Sichuan and Zhejiang. Columns (3) - (4) present estimates of favors but using an alternative outcome measures that exclude 2002 when estimating. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Sales share* measures the size of firms for each type of firms; All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), Ln GDP per capita and prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table 9: Summary statistics: counties with & without leaving leaders

| Variable | Counties with leaving leaders | Counties without leaving leaders | Difference | (Stand Error) |
|------------------------------------|----------------------------------|-------------------------------------|------------|---------------|
| Debt leverage (All firms) | 0.710 | 0.703 | 0.007 | (0.027) |
| Debt leverage (State-related) | 0.740 | 0.721 | 0.029 | (0.034) |
| Debt leverage (Private) | 0.615 | 0.621 | -0.070 | (0.052) |
| Debt leverage (Utility industry) | 0.549 | 0.532 | 0.017 | (0.037) |
| Effective tax rate (All firms) | 0.042 | 0.051 | -0.009 | (0.008) |
| Effective tax rate (Private) | 0.044 | 0.059 | -0.015* | (0.009) |
| Effective tax rate (State-related) | 0.035 | 0.047 | -0.012 | (0.007) |
| Sales share (State-related) | 0.511 | 0.582 | -0.071 | (0.045) |
| Sales share (Private) | 0.421 | 0.330 | 0.091** | (0.041) |
| Sales share (Utility industry) | 0.110 | 0.097 | 0.013 | (0.023) |
| Ln GDP per capita | 8.489 | 8.558 | -0.069 | (0.128) |
| Normalized corp. income tax | 0.004 | 0.005 | -0.001 | (0.001) |
| Previous fiscal pressure | 1.866 | 1.920 | -0.054 | (0.176) |
| Deviation of other tax | -718.892 | -591.698 | -127.194 | (298.658) |

Notes: This table presents descriptive statistics between counties with leaving leaders and counties without. *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Sales share* measures the size of firms for each type; *Normalized corporate income tax* is the previous corporate income tax normalized by GDP; *Fiscal pressure* captures the extent of tightness in fiscal budget; *Absolute deviations* is a measure on the absolute deviation in the 2001 corporate income tax from trend; *Deviation of other tax* measures how much fiscal resources were transferred to raise the 2001 corporate income tax. All firm-related variables are taken average from 1999 to 2000 and constructed from Annual Surveys of Industrial Production. Corporate Income tax are collected from various local fiscal or tax yearbooks. All other taxes and GDP data are from Province, prefecture, and county fiscal statistics. Details on the data source can be found in the Data section.

Table 10: Leaving leaders and assistance from previously favored firms

| VARIABLES | (1) | (2) | (3) | (4) | (5) |
|---|-------------------|--------------------|---------------------|--------------------|---------------------|
| | Relative ATD | | | | |
| Indicator for leaving leaders | -0.117 (0.115) | -0.130 (0.118) | 0.941* (0.540) | -0.127 (0.118) | -0.394** (0.186) |
| Debt leverage (State-related) | | 0.580** (0.292) | 0.679** (0.313) | | |
| Debt leverage \times Leaving Leaders | | | -1.482** (0.738) | | |
| Effective tax rate (Private) | | | | -2.264* (1.169) | -2.441** (1.197) |
| Effective tax rate \times Leaving Leaders | | | | | 5.841** (2.811) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 440 | 440 | 440 | 440 | 440 |
| R^2 | 0.438 | 0.446 | 0.450 | 0.451 | 0.454 |

Notes: The table presents heterogeneous effects of leaving leaders for each of the favors. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Indicator for leaving leaders* is an indicator that takes value of 1 if both county mayor and party secretary are soon to leave office and 0 otherwise. All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), Ln GDP per capita and prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table 11: Government responses and relabeling other taxes

| VARIABLES | Total Relative | Level | | |
|---|--------------------|----------------------|----------------------|---------------------|
| | Responses | Responses | | |
| | (1) | (2) | (3) | (4) |
| Indicator for leaving leaders | -0.0600 (0.154) | | -142.5 (404.7) | -714.2 (767.4) |
| Deviation of other tax | | -0.178** (0.0794) | -0.176** (0.0814) | -0.144* (0.0803) |
| Deviation of other tax \times Leaving leaders | | | | -0.850 (0.706) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ |
| Obs. | 440 | 471 | 440 | 440 |
| R^2 | 0.426 | 0.591 | 0.587 | 0.591 |

Notes: The table presents the negative correlation between the deviation of other tax and the deviation of corporate income tax in 2001. *Total relative deviation* is a measure for the extent of total deviations in the 2001 corporate income tax; *Absolute deviation* is a measure on the absolute deviation in the 2001 corporate income tax from trend; *Deviation of other tax* measures how much fiscal resources were transferred to raise the 2001 corporate income tax; *Indicator for leaving leaders* is an indicator that takes value of 1 if both county mayor and party secretary are soon to leave office and 0 otherwise. All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), Ln GDP per capita and prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 12: Effects of favors when leaders are at the end of term

| VARIABLES | (1) | (2) | (3) | (4) | (5) |
|---|-------------------|-------------------|-------------------|--------------------|---------------------|
| | Relative ATD | | | | |
| Indicator for end-of-term leaders | 0.0125 (0.143) | 0.0225 (0.145) | 0.563 (0.528) | 0.0270 (0.144) | -0.157 (0.184) |
| Debt leverage (State-related) | | 0.572* (0.297) | 0.632* (0.324) | | |
| Debt leverage \times End-of-term leaders | | | -0.784 (0.738) | | |
| Effective tax rate (Private) | | | | -2.254* (1.167) | -2.738** (1.191) |
| Effective tax rate \times End-of-term leaders | | | | | 3.525* (2.084) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 440 | 440 | 440 | 440 | 440 |
| R^2 | 0.437 | 0.445 | 0.446 | 0.450 | 0.454 |

Notes: The table presents heterogeneous effects of end-of-term leaders for each of the favors. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Indicator for end-of-term leaders* is an indicator that takes value of 1 if both county mayor and party secretary are at the end of term in office and 0 otherwise. All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), Ln GDP per capita and prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table 13: Summary statistics: counties with & without new leaders

| Variable | Counties with | Counties without | Difference | (Stand Error) |
|------------------------------------|---------------|------------------|------------|---------------|
| | new leaders | new leaders | | |
| Debt leverage (All firms) | 0.699 | 0.704 | -0.004 | (0.027) |
| Debt leverage (State-related) | 0.710 | 0.723 | -0.013 | (0.031) |
| Debt leverage (Private) | 0.680 | 0.615 | 0.064 | (0.040) |
| Debt leverage (Utility industry) | 0.521 | 0.534 | -0.013 | (0.041) |
| Effective tax rate (All firms) | 0.055 | 0.050 | 0.004 | (0.008) |
| Effective tax rate (Private) | 0.060 | 0.057 | 0.003 | (0.009) |
| Effective tax rate (State-related) | 0.052 | 0.046 | 0.006 | (0.007) |
| Sales share (State-related) | 0.545 | 0.579 | -0.034 | (0.045) |
| Sales share (Private) | 0.347 | 0.336 | 0.011 | (0.041) |
| Sales share (Utility industry) | 0.068 | 0.101 | -0.033 | (0.023) |
| Ln GDP per capita | 8.630 | 8.547 | 0.083 | (0.128) |
| Normalized corp. income tax | 0.005 | 0.005 | 0.000 | (0.001) |
| Previous fiscal pressure | 1.747 | 1.930 | -0.183 | (0.175) |
| Deviation of other tax | -597.291 | -601.856 | 4.566 | (298.719) |

Notes: This table presents descriptive statistics between counties with leaving leaders and counties without. *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Sales share* measures the size of firms for each type; *Normalized corporate income tax* is the previous corporate income tax normalized by GDP; *Fiscal pressure* captures the extent of tightness in fiscal budget; *Absolute deviation* is a measure on the absolute deviation in the 2001 corporate income tax from trend; *Deviation of other tax* measures how much fiscal resources were transferred to raise the 2001 corporate income tax. All firm-related variables are taken average from 1999 to 2000 and constructed from Annual Surveys of Industrial Production. Corporate Income tax are collected from various local fiscal or tax yearbooks. All other taxes and GDP data are from Province, prefecture, and county fiscal statistics. Details on the data source can be found in the Data section.

Table 14: New leaders and assistance from previously favored firms

| VARIABLES | (1) | (2) | (3) | (4) | (5) |
|---|-------------------|-------------------|-------------------|--------------------|---------------------|
| | Relative ATD | | | | |
| Indicator for new leaders | -0.065 (0.124) | -0.064 (0.121) | -0.347 (0.721) | -0.064 (0.127) | -0.296 (0.212) |
| Debt leverage (State-related) | | 0.586* (0.296) | 0.580* (0.297) | | |
| Debt leverage \times New leaders | | | 0.387 (0.960) | | |
| Effective tax rate (Private) | | | | -2.206* (1.178) | -2.403** (1.180) |
| Effective tax rate \times New leaders | | | | | 3.962 (3.078) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 441 | 441 | 441 | 441 | 441 |
| R^2 | 0.438 | 0.446 | 0.446 | 0.450 | 0.452 |

Notes: The table presents heterogeneous effects of new leaders for each of the favors. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Indicator for new leaders* is an indicator that takes value of 1 if both county mayor and party secretary are new to office and 0 otherwise. All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), Ln GDP per capita and prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A1: Which leaving leader matters? mayor or party secretary?

| VARIABLES | (1) | (2) | (3) | (4) | (5) |
|---|--------------------|--------------------|--------------------|--------------------|---------------------|
| | Relative ATD | | | | |
| Panel A: Heterogeneous effect of leaving mayor | | | | | |
| Indicator for leaving mayor | -0.108 (0.107) | -0.111 (0.105) | 0.937* (0.553) | -0.0808 (0.101) | 0.0852 (0.160) |
| Debt leverage (State-related) | | 0.620** (0.299) | 0.800** (0.344) | | |
| Debt leverage \times Leaving mayor | | | -1.462* (0.798) | | |
| Effective tax rate (Private) | | | | -2.206* (1.142) | -1.172 (1.037) |
| Effective tax rate \times Leaving mayor | | | | | -2.944* (1.774) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 447 | 447 | 447 | 447 | 447 |
| R^2 | 0.446 | 0.455 | 0.462 | 0.458 | 0.463 |
| Panel B: Heterogeneous effect of leaving party secretary | | | | | |
| Indicator for leaving party secretary | -0.0625 (0.111) | -0.0980 (0.108) | 0.0997 (0.348) | -0.0782 (0.110) | -0.172 (0.150) |
| Debt leverage (State-related) | | 0.645** (0.297) | 0.724* (0.381) | | |
| Debt leverage \times Leaving party secretary | | | -0.264 (0.504) | | |
| Effective tax rate (Private) | | | | -2.301* (1.165) | -2.420** (1.216) |
| Effective tax rate \times Leaving party secretary | | | | | 2.080 (2.150) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 447 | 447 | 447 | 447 | 447 |
| R^2 | 0.444 | 0.454 | 0.454 | 0.457 | 0.458 |

Notes: The table presents heterogeneous effects of leaving leaders on each of the favors. Panel A presents heterogeneous effects of leaving mayor. Panel B presents heterogeneous effects of leaving party secretary. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Debt leverage* variables measures the amount of loans that go to different type of firms (normalized by total assets); *Effective tax rate* captures the extent of tax deduction for firms of different ownerships; *Indicator for leaving mayor* is an indicator that takes value of 1 if the county mayor is soon to leave and without promoting to party secretary and 0 otherwise. *Indicator for leaving party secretary* is an indicator that takes value of 1 if the county party secretary is soon to leave and without the mayor promoting to party secretary and 0 otherwise. All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), Ln GDP per capita and prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1.

Table A2: Which new leader matters? mayor or party secretary?

| VARIABLES | (1) | (2) | (3) | (4) | (5) |
|---|--------------------|--------------------|-------------------|--------------------|--------------------|
| | Relative ATD | | | | |
| Panel A: Heterogeneous effect of new mayor | | | | | |
| Indicator for new mayor | -0.0472 (0.108) | -0.0489 (0.105) | -0.411 (0.704) | -0.0453 (0.112) | -0.0428 (0.260) |
| Debt leverage (State-related) | | 0.586** (0.296) | 0.562* (0.299) | | |
| Debt leverage × New mayor | | | 0.508 (1.036) | | |
| Effective tax rate (Private) | | | | -2.205* (1.179) | -2.200* (1.261) |
| Effective tax rate × New mayor | | | | | -0.0423 (3.515) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 441 | 441 | 441 | 441 | 441 |
| R^2 | 0.438 | 0.446 | 0.446 | 0.450 | 0.450 |
| Panel B: Heterogeneous effect of new party secretary | | | | | |
| Indicator for new party secretary | 0.128 (0.147) | 0.135 (0.147) | -1.512 (1.233) | 0.126 (0.143) | 0.192 (0.238) |
| Debt leverage (State-related) | | 0.595** (0.298) | 0.391 (0.293) | | |
| Debt leverage × New party secretary | | | 2.235 (1.747) | | |
| Effective tax rate (Private) | | | | -2.202* (1.195) | -2.083 (1.288) |
| Effective tax rate (State) × New party secretary | | | | | -1.297 (2.854) |
| Prefecture FE | ✓ | ✓ | ✓ | ✓ | ✓ |
| All Controls | ✓ | ✓ | ✓ | ✓ | ✓ |
| Obs. | 441 | 441 | 441 | 441 | 441 |
| R^2 | 0.440 | 0.448 | 0.461 | 0.452 | 0.453 |

Notes: The table presents heterogeneous effects of new leaders on each of the favors. Panel A presents heterogeneous effects of new mayor. Panel B presents heterogeneous effects of new party secretary. *Relative ATD* is a measure for the extent of firms' assistance in the 2001 corporate income tax; *Indicator for new mayor* is an indicator that takes value of 1 if the county mayor just arrived in office and without the party secretary being promoted from mayor and 0 otherwise. *Indicator for new party secretary* is an indicator that takes value of 1 if the county party secretary just arrived in office and without being promoted from mayor and 0 otherwise. All regressions control for previous fiscal pressure, previous corporate income tax (normalized by GDP), Ln GDP per capita and prefecture fixed effects. Robust standard errors are clustered at prefecture level. Robust standard errors in parentheses: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Appendix E. Data Sources for Corporate Income Tax

| Province | Prefecture | County | Data Sources | Province | Prefecture | County | Data Sources |
|----------|------------|-----------|--------------|-----------|------------|------------|-----------------|
| Anhui | Anqing | Huaining | Tax Yeabook | Anhui | Wuhu | Nanling | Tax Yeabook |
| Anhui | Anqing | Susong | Tax Yeabook | Anhui | Wuhu | Wuhu | Tax Yeabook |
| Anhui | Anqing | Taihu | Tax Yeabook | Anhui | Xuancheng | Guangde | Tax Yeabook |
| Anhui | Anqing | Tongcheng | Tax Yeabook | Anhui | Xuancheng | Jingde | Tax Yeabook |
| Anhui | Anqing | Wangjiang | Tax Yeabook | Anhui | Xuancheng | Jingxian | Tax Yeabook |
| Anhui | Anqing | Yuexi | Tax Yeabook | Anhui | Xuancheng | Jixi | Tax Yeabook |
| Anhui | Anqing | Zongyang | Tax Yeabook | Anhui | Xuancheng | Langxi | Tax Yeabook |
| Anhui | Bengbu | Guzhen | Tax Yeabook | Anhui | Xuancheng | Ningguo | Tax Yeabook |
| Anhui | Bengbu | Huaiyuan | Tax Yeabook | Chongqing | Chongqing | Bishan | Fiscal Yearbook |
| Anhui | Bengbu | Wuhe | Tax Yeabook | Chongqing | Chongqing | Dazu | Fiscal Yearbook |
| Anhui | Bozhou | Guoyang | Tax Yeabook | Chongqing | Chongqing | Dianjiang | Fiscal Yearbook |
| Anhui | Chaohu | Hanshan | Tax Yeabook | Chongqing | Chongqing | Fengdu | Fiscal Yearbook |
| Anhui | Chaohu | Hexiang | Tax Yeabook | Chongqing | Chongqing | Fengjie | Fiscal Yearbook |
| Anhui | Chaohu | Lujiang | Tax Yeabook | Chongqing | Chongqing | Hechuan | Fiscal Yearbook |
| Anhui | Chaohu | Wuwei | Tax Yeabook | Chongqing | Chongqing | Jiangjin | Fiscal Yearbook |
| Anhui | Chuzhou | Dingyuan | Tax Yeabook | Chongqing | Chongqing | Kaixian | Fiscal Yearbook |
| Anhui | Chuzhou | Fengyang | Tax Yeabook | Chongqing | Chongqing | Liangping | Fiscal Yearbook |
| Anhui | Chuzhou | Lai'an | Tax Yeabook | Chongqing | Chongqing | Nanchuan | Fiscal Yearbook |
| Anhui | Chuzhou | Mingguang | Tax Yeabook | Chongqing | Chongqing | Pengshui | Fiscal Yearbook |
| Anhui | Chuzhou | Quanjiao | Tax Yeabook | Chongqing | Chongqing | Qijiang | Fiscal Yearbook |
| Anhui | Chuzhou | Tianchang | Tax Yeabook | Chongqing | Chongqing | Rongchang | Fiscal Yearbook |
| Anhui | Fuyang | Funan | Tax Yeabook | Chongqing | Chongqing | Shizhu | Fiscal Yearbook |
| Anhui | Fuyang | Jieshou | Tax Yeabook | Chongqing | Chongqing | Tongliang | Fiscal Yearbook |
| Anhui | Fuyang | Linquan | Tax Yeabook | Chongqing | Chongqing | Tongnan | Fiscal Yearbook |
| Anhui | Fuyang | Taihe | Tax Yeabook | Chongqing | Chongqing | Wulong | Fiscal Yearbook |
| Anhui | Fuyang | Yingshang | Tax Yeabook | Chongqing | Chongqing | Wushan | Fiscal Yearbook |
| Anhui | Hefei | Changfeng | Tax Yeabook | Chongqing | Chongqing | Wuxi | Fiscal Yearbook |
| Anhui | Hefei | Feidong | Tax Yeabook | Chongqing | Chongqing | Yongchuan | Fiscal Yearbook |
| Anhui | Hefei | Feixi | Tax Yeabook | Chongqing | Chongqing | Youyang | Fiscal Yearbook |
| Anhui | Huaibei | Suixi | Tax Yeabook | Chongqing | Chongqing | Yunyang | Fiscal Yearbook |
| Anhui | Huainan | Fengtai | Tax Yeabook | Chongqing | Chongqing | Zhongxian | Fiscal Yearbook |
| Anhui | Huangshan | Qimen | Tax Yeabook | Fujian | Fuzhou | Minhou | Fiscal Yearbook |
| Anhui | Huangshan | Shexian | Tax Yeabook | Fujian | Quanzhou | Anxi | Tax Yeabook |
| Anhui | Huangshan | Xiuning | Tax Yeabook | Gansu | Jinchang | Yongchang | Fiscal Yearbook |
| Anhui | Huangshan | Yixian | Tax Yeabook | Gansu | Lanzhou | Yuzhong | Fiscal Yearbook |
| Anhui | Lu'an area | Huoqiu | Tax Yeabook | Gansu | Tianshui | Gangu | Fiscal Yearbook |
| Anhui | Lu'an area | Huoshan | Tax Yeabook | Gansu | Tianshui | Qinan | Fiscal Yearbook |
| Anhui | Lu'an area | Jinzhai | Tax Yeabook | Gansu | Tianshui | Qingshui | Fiscal Yearbook |
| Anhui | Lu'an area | Shouxian | Tax Yeabook | Gansu | Tianshui | Wushan | Fiscal Yearbook |
| Anhui | Lu'an area | Shucheng | Tax Yeabook | Gansu | Tianshui | Zhangchuan | Fiscal Yearbook |
| Anhui | Ma'anshan | Dangtu | Tax Yeabook | Guangdong | Guangzhou | Conghua | Fiscal Yearbook |
| Anhui | Suzhou | Dangshan | Tax Yeabook | Guangdong | Guangzhou | Zengcheng | Fiscal Yearbook |
| Anhui | Suzhou | Lingbi | Tax Yeabook | Guangxi | Guilin | Gongcheng | Fiscal Yearbook |
| Anhui | Suzhou | Sixian | Tax Yeabook | Guangxi | Guilin | Guanyang | Fiscal Yearbook |
| Anhui | Suzhou | Xiaoxian | Tax Yeabook | Guangxi | Guilin | Lingchuan | Fiscal Yearbook |
| Anhui | Tongling | Dongzhi | Tax Yeabook | Guangxi | Guilin | Lingui | Fiscal Yearbook |
| Anhui | Tongling | Qingyang | Tax Yeabook | Guangxi | Guilin | Lipu | Fiscal Yearbook |
| Anhui | Tongling | Shitai | Tax Yeabook | Guangxi | Guilin | Longsheng | Fiscal Yearbook |
| Anhui | Tongling | Tongling | Tax Yeabook | Guangxi | Guilin | Pingle | Fiscal Yearbook |

| Province | Prefecture | County | Data Sources | Province | Prefecture | County | Data Sources |
|--------------|--------------|-----------|-----------------|--------------|--------------|-----------|-----------------|
| Guangxi | Guilin | Quanzhou | Fiscal Yearbook | Heilongjiang | Jiamusi | Huanan | Fiscal Yearbook |
| Guangxi | Guilin | Xing'an | Fiscal Yearbook | Heilongjiang | Jiamusi | Tangyuan | Fiscal Yearbook |
| Guangxi | Guilin | Yangshuo | Fiscal Yearbook | Heilongjiang | Jiamusi | Tongjiang | Fiscal Yearbook |
| Guangxi | Guilin | Yongfu | Fiscal Yearbook | Heilongjiang | Mudanjiang | Dongning | Fiscal Yearbook |
| Guangxi | Guilin | Ziyuan | Fiscal Yearbook | Heilongjiang | Mudanjiang | Hailin | Fiscal Yearbook |
| Guangxi | Nanning | Paning | Fiscal Yearbook | Heilongjiang | Mudanjiang | Linkou | Fiscal Yearbook |
| Guangxi | Nanning | Wuming | Fiscal Yearbook | Heilongjiang | Mudanjiang | Muling | Fiscal Yearbook |
| Guizhou | Anshun | Guanling | Tax Yeabook | Heilongjiang | Mudanjiang | Ning'an | Fiscal Yearbook |
| Guizhou | Anshun | Pingba | Tax Yeabook | Heilongjiang | Mudanjiang | Suifenhe | Fiscal Yearbook |
| Guizhou | Anshun | Puding | Tax Yeabook | Heilongjiang | Qiqihar | Baiquan | Fiscal Yearbook |
| Guizhou | Anshun | Zhenning | Tax Yeabook | Heilongjiang | Qiqihar | Fuyu | Fiscal Yearbook |
| Guizhou | Anshun | Ziyun | Tax Yeabook | Heilongjiang | Qiqihar | Gannan | Fiscal Yearbook |
| Guizhou | Guiyang | Baiyun | Tax Yeabook | Heilongjiang | Qiqihar | Kedong | Fiscal Yearbook |
| Guizhou | Guiyang | Huaxi | Tax Yeabook | Heilongjiang | Qiqihar | Keshan | Fiscal Yearbook |
| Guizhou | Guiyang | Kaiyang | Tax Yeabook | Heilongjiang | Qiqihar | Longjiang | Fiscal Yearbook |
| Guizhou | Guiyang | Nanming | Tax Yeabook | Heilongjiang | Qiqihar | Tailai | Fiscal Yearbook |
| Guizhou | Guiyang | Qingzhen | Tax Yeabook | Heilongjiang | Qiqihar | Yian | Fiscal Yearbook |
| Guizhou | Guiyang | Udang | Tax Yeabook | Heilongjiang | Shuangyashan | Baoqing | Fiscal Yearbook |
| Guizhou | Guiyang | Xiaohe | Tax Yeabook | Heilongjiang | Shuangyashan | Jixian | Fiscal Yearbook |
| Guizhou | Guiyang | Xifeng | Tax Yeabook | Heilongjiang | Shuangyashan | Raohe | Fiscal Yearbook |
| Guizhou | Guiyang | Xiuwen | Tax Yeabook | Henan | Kaifeng | Kaifeng | Fiscal Yearbook |
| Guizhou | Guiyang | Yunyan | Tax Yeabook | Henan | Kaifeng | Lankao | Fiscal Yearbook |
| Hebei | Hengshui | Anping | Fiscal Yearbook | Henan | Kaifeng | Sixian | Fiscal Yearbook |
| Hebei | Hengshui | Fucheng | Fiscal Yearbook | Henan | Kaifeng | Tongxu | Fiscal Yearbook |
| Hebei | Hengshui | Gucheng | Fiscal Yearbook | Henan | Kaifeng | Weishi | Fiscal Yearbook |
| Hebei | Hengshui | Jinxiang | Fiscal Yearbook | Henan | Luohe | Linying | Fiscal Yearbook |
| Hebei | Hengshui | Jizhou | Fiscal Yearbook | Henan | Luohe | Wuyang | Fiscal Yearbook |
| Hebei | Hengshui | Raoyang | Fiscal Yearbook | Henan | Luohe | Yancheng | Fiscal Yearbook |
| Hebei | Hengshui | Shenzhou | Fiscal Yearbook | Henan | Luoyang | Songxian | Fiscal Yearbook |
| Hebei | Hengshui | Wuqiang | Fiscal Yearbook | Henan | Luoyang | Xin'an | Fiscal Yearbook |
| Hebei | Hengshui | Wuyi | Fiscal Yearbook | Henan | Luoyang | Yanshi | Fiscal Yearbook |
| Hebei | Hengshui | Zaoqiang | Fiscal Yearbook | Henan | Luoyang | Yichuan | Fiscal Yearbook |
| Hebei | Langfang | Bazhou | Fiscal Yearbook | Henan | Pingdingshan | Baofeng | Fiscal Yearbook |
| Hebei | Langfang | Dachang | Fiscal Yearbook | Henan | Pingdingshan | Jiaxian | Fiscal Yearbook |
| Hebei | Langfang | Dacheng | Fiscal Yearbook | Henan | Pingdingshan | Lushan | Fiscal Yearbook |
| Hebei | Langfang | Guan | Fiscal Yearbook | Henan | Pingdingshan | Ruzhou | Fiscal Yearbook |
| Hebei | Langfang | Sanhe | Fiscal Yearbook | Henan | Pingdingshan | Wugang | Fiscal Yearbook |
| Hebei | Langfang | Wenan | Fiscal Yearbook | Henan | Pingdingshan | Yexian | Fiscal Yearbook |
| Hebei | Langfang | Xianghe | Fiscal Yearbook | Henan | Sanmenxia | Lingbao | Fiscal Yearbook |
| Hebei | Langfang | Yongqing | Fiscal Yearbook | Henan | Sanmenxia | Lushi | Fiscal Yearbook |
| Hebei | Shijiazhuang | Gaoyi | Fiscal Yearbook | Henan | Sanmenxia | Mianchi | Fiscal Yearbook |
| Hebei | Shijiazhuang | Jingxing | Fiscal Yearbook | Henan | Sanmenxia | Shanxian | Fiscal Yearbook |
| Hebei | Shijiazhuang | Yuanshi | Fiscal Yearbook | Henan | Sanmenxia | Sheqi | Fiscal Yearbook |
| Hebei | Xingtai | Pingxiang | Fiscal Yearbook | Henan | Sanmenxia | Yima | Fiscal Yearbook |
| Hebei | Zhangjiakou | Wanquan | Fiscal Yearbook | Henan | Zhengzhou | Dengfeng | Fiscal Yearbook |
| Hebei | Zhangjiakou | Xuanhua | Fiscal Yearbook | Henan | Zhengzhou | Gongyi | Fiscal Yearbook |
| Heilongjiang | Jiamusi | Fujin | Fiscal Yearbook | Henan | Zhengzhou | Rongyang | Fiscal Yearbook |
| Heilongjiang | Jiamusi | Fuyuan | Fiscal Yearbook | Henan | Zhengzhou | Xinmi | Fiscal Yearbook |
| Heilongjiang | Jiamusi | Huachuan | Fiscal Yearbook | Henan | Zhengzhou | Xinzheng | Fiscal Yearbook |

| Province | Prefecture | County | Data Sources | Province | Prefecture | County | Data Sources |
|----------|-------------|------------|-----------------|----------|-------------|--------------|-----------------|
| Henan | Zhengzhou | Zhongmou | Fiscal Yearbook | Hubei | Xiantao | Xiantao | Tax Yearbook |
| Henan | Zhumadian | Xiping | Fiscal Yearbook | Hubei | Xiaogan | Anlu | Tax Yearbook |
| Hubei | Enshi | Badong | Tax Yearbook | Hubei | Xiaogan | Dawu | Tax Yearbook |
| Hubei | Enshi | Hefeng | Tax Yearbook | Hubei | Xiaogan | Hanchuan | Tax Yearbook |
| Hubei | Enshi | Jianshi | Tax Yearbook | Hubei | Xiaogan | Xiaochang | Tax Yearbook |
| Hubei | Enshi | Laifeng | Tax Yearbook | Hubei | Xiaogan | Yingcheng | Tax Yearbook |
| Hubei | Enshi | Lichuan | Tax Yearbook | Hubei | Xiaogan | Yunmeng | Tax Yearbook |
| Hubei | Enshi | Xianfeng | Tax Yearbook | Hubei | Yichang | Changyang | Tax Yearbook |
| Hubei | Enshi | Xuan'en | Tax Yearbook | Hubei | Yichang | Dangyang | Tax Yearbook |
| Hubei | Forest zone | Linqu | Tax Yearbook | Hubei | Yichang | Genggui | Tax Yearbook |
| Hubei | Huanggang | Hongan | Tax Yearbook | Hubei | Yichang | Wufeng | Tax Yearbook |
| Hubei | Huanggang | Huangmei | Tax Yearbook | Hubei | Yichang | Xingshan | Tax Yearbook |
| Hubei | Huanggang | Loushui | Tax Yearbook | Hubei | Yichang | Yidu | Tax Yearbook |
| Hubei | Huanggang | Luotian | Tax Yearbook | Hubei | Yichang | Yuanan | Tax Yearbook |
| Hubei | Huanggang | Macheng | Tax Yearbook | Hubei | Yichang | Zhijiang | Tax Yearbook |
| Hubei | Huanggang | Tuanfeng | Tax Yearbook | Hunan | Huaihua | Hongjiang | Fiscal Yearbook |
| Hubei | Huanggang | Weichun | Tax Yearbook | Hunan | Zhuzhou | Youxian | Fiscal Yearbook |
| Hubei | Huanggang | Wuxue | Tax Yearbook | Jiangsu | Changzhou | Jintan | Fiscal Yearbook |
| Hubei | Huanggang | Yingshan | Tax Yearbook | Jiangsu | Changzhou | Piaoyang | Fiscal Yearbook |
| Hubei | Huangshi | Daye | Tax Yearbook | Jiangsu | Lianyungang | Donghai | Fiscal Yearbook |
| Hubei | Huangshi | Yangxin | Tax Yearbook | Jiangsu | Lianyungang | Ganyu | Fiscal Yearbook |
| Hubei | Jingmen | Jingshan | Tax Yearbook | Jiangsu | Lianyungang | Guanna | Fiscal Yearbook |
| Hubei | Jingmen | Shayang | Tax Yearbook | Jiangsu | Lianyungang | Guanyun | Fiscal Yearbook |
| Hubei | Jingmen | Zhongxiang | Tax Yearbook | Jiangsu | Nantong | Hai'an | Fiscal Yearbook |
| Hubei | Jingzhou | Gong'an | Tax Yearbook | Jiangsu | Nantong | Haimen | Fiscal Yearbook |
| Hubei | Jingzhou | Honghu | Tax Yearbook | Jiangsu | Nantong | Qidong | Fiscal Yearbook |
| Hubei | Jingzhou | Jiangling | Tax Yearbook | Jiangsu | Nantong | Rudong | Fiscal Yearbook |
| Hubei | Jingzhou | Jianli | Tax Yearbook | Jiangsu | Nantong | Rugao | Fiscal Yearbook |
| Hubei | Jingzhou | Shishou | Tax Yearbook | Jiangsu | Nantong | Tongzhou | Fiscal Yearbook |
| Hubei | Jingzhou | Songzi | Tax Yearbook | Jiangsu | Suzhou | Changshu | Fiscal Yearbook |
| Hubei | Qianjiang | Qianjiang | Tax Yearbook | Jiangsu | Suzhou | Kunshan | Fiscal Yearbook |
| Hubei | Suizhou | Guangshui | Tax Yearbook | Jiangsu | Suzhou | Taicang | Fiscal Yearbook |
| Hubei | Ten Kansas | Fangxian | Tax Yearbook | Jiangsu | Suzhou | Wujiang | Fiscal Yearbook |
| Hubei | Ten Kansas | Jixi | Tax Yearbook | Jiangsu | Suzhou | Zhangjiagang | Fiscal Yearbook |
| Hubei | Ten Kansas | Yuanxian | Tax Yearbook | Jiangsu | Wuxi | Jiangyin | Fiscal Yearbook |
| Hubei | Ten Kansas | Zhushan | Tax Yearbook | Jiangsu | Wuxi | Yixing | Fiscal Yearbook |
| Hubei | Ten Kansas | Zhuxi | Tax Yearbook | Jiangsu | Yancheng | Binhai | Fiscal Yearbook |
| Hubei | Tianmen | Tianmen | Tax Yearbook | Jiangsu | Yancheng | Dafeng | Fiscal Yearbook |
| Hubei | Xiangfan | Baokang | Tax Yearbook | Jiangsu | Yancheng | Dongtai | Fiscal Yearbook |
| Hubei | Xiangfan | Laohekou | Tax Yearbook | Jiangsu | Yancheng | Funing | Fiscal Yearbook |
| Hubei | Xiangfan | Nanzhang | Tax Yearbook | Jiangsu | Yancheng | Jianhu | Fiscal Yearbook |
| Hubei | Xiangfan | Valley | Tax Yearbook | Jiangsu | Yancheng | Sheyang | Fiscal Yearbook |
| Hubei | Xiangfan | Yicheng | Tax Yearbook | Jiangsu | Yancheng | Xiangshui | Fiscal Yearbook |
| Hubei | Xiangfan | Zaoyang | Tax Yearbook | Jiangsu | Yancheng | Yandu | Fiscal Yearbook |
| Hubei | Xianning | Chibi | Tax Yearbook | Jiangxi | Jiujiang | Yongxiu | Fiscal Yearbook |
| Hubei | Xianning | Chongyang | Tax Yearbook | Jiangxi | Yichun | Fengcheng | Fiscal Yearbook |
| Hubei | Xianning | Jiayu | Tax Yearbook | Jiangxi | Yichun | Fengxin | Fiscal Yearbook |
| Hubei | Xianning | Tongcheng | Tax Yearbook | Jiangxi | Yichun | Gaoan | Fiscal Yearbook |
| Hubei | Xianning | Tongshan | Tax Yearbook | Jiangxi | Yichun | Jing'an | Fiscal Yearbook |

| Province | Prefecture | County | Data Sources | Province | Prefecture | County | Data Sources |
|----------|------------|-------------|-----------------|----------|------------|------------|-----------------|
| Jiangxi | Yichun | Shanggao | Fiscal Yearbook | Shanxi | Linfen | Xiangfen | Fiscal Yearbook |
| Jiangxi | Yichun | Tonggu | Fiscal Yearbook | Shanxi | Yuncheng | Wanrong | Fiscal Yearbook |
| Jiangxi | Yichun | Wanzai | Fiscal Yearbook | Shanxi | Yuncheng | Yuanqu | Fiscal Yearbook |
| Jiangxi | Yichun | Yifeng | Fiscal Yearbook | Shanxi | Yan'an | Ansai | Fiscal Yearbook |
| Jiangxi | Yichun | Zhangshu | Fiscal Yearbook | Shanxi | Yan'an | Fuxian | Fiscal Yearbook |
| Jilin | Siping | Gongzhuling | Fiscal Yearbook | Shanxi | Yan'an | Ganquan | Fiscal Yearbook |
| Jilin | Siping | Lishu | Fiscal Yearbook | Shanxi | Yan'an | Huangling | Fiscal Yearbook |
| Jilin | Siping | Shuangliao | Fiscal Yearbook | Shanxi | Yan'an | Huanglong | Fiscal Yearbook |
| Jilin | Siping | Yitong | Fiscal Yearbook | Shanxi | Yan'an | Luochuan | Fiscal Yearbook |
| Jilin | Yanbian | Yanji | Fiscal Yearbook | Shanxi | Yan'an | Wuqi | Fiscal Yearbook |
| Ningxia | Yinchuan | Helan | Fiscal Yearbook | Shanxi | Yan'an | Yanchuan | Fiscal Yearbook |
| Ningxia | Yinchuan | Yongning | Fiscal Yearbook | Shanxi | Yan'an | Yanzhang | Fiscal Yearbook |
| Shandong | Dezhou | Leling | Tax Yeabook | Shanxi | Yan'an | Yichuan | Fiscal Yearbook |
| Shandong | Dezhou | Lingxiang | Tax Yeabook | Shanxi | Yan'an | Zhichang | Fiscal Yearbook |
| Shandong | Dezhou | Ningjin | Tax Yeabook | Shanxi | Yan'an | Zhidan | Fiscal Yearbook |
| Shandong | Dezhou | Pinyuan | Tax Yeabook | Sichuan | Aba | Aba | Tax Yeabook |
| Shandong | Dezhou | Qihe | Tax Yeabook | Sichuan | Aba | Heishui | Tax Yeabook |
| Shandong | Dezhou | Qingyun | Tax Yeabook | Sichuan | Aba | Hongyuan | Tax Yeabook |
| Shandong | Dezhou | Wucheng | Tax Yeabook | Sichuan | Aba | Jinchuan | Tax Yeabook |
| Shandong | Dezhou | Xiajin | Tax Yeabook | Sichuan | Aba | Jiuzhaigou | Tax Yeabook |
| Shandong | Dezhou | Yucheng | Tax Yeabook | Sichuan | Aba | Li | Tax Yeabook |
| Shandong | Dongying | Guangrao | Tax Yeabook | Sichuan | Aba | Malcolm | Tax Yeabook |
| Shandong | Dongying | Kenli | Tax Yeabook | Sichuan | Aba | Maoxian | Tax Yeabook |
| Shandong | Dongying | Lijin | Tax Yeabook | Sichuan | Aba | Rangtang | Tax Yeabook |
| Shandong | Jinan | Jiyang | Fiscal Yearbook | Sichuan | Aba | Ruorgai | Tax Yeabook |
| Shandong | Jinan | Pingyin | Fiscal Yearbook | Sichuan | Aba | Songpan | Tax Yeabook |
| Shandong | Jinan | Shanghe | Fiscal Yearbook | Sichuan | Aba | Wenchuan | Tax Yeabook |
| Shandong | Jinan | Zhangqiu | Fiscal Yearbook | Sichuan | Aba | Xiaojin | Tax Yeabook |
| Shandong | Liaocheng | Chiping | Fiscal Yearbook | Sichuan | Bazhong | Tongjiang | Fiscal Yearbook |
| Shandong | Liaocheng | Dong'e | Fiscal Yearbook | Sichuan | Ganzi | Baiyu | Tax Yeabook |
| Shandong | Liaocheng | Gaotang | Fiscal Yearbook | Sichuan | Ganzi | Batang | Tax Yeabook |
| Shandong | Liaocheng | Guanxian | Fiscal Yearbook | Sichuan | Ganzi | Danba | Tax Yeabook |
| Shandong | Liaocheng | Liaocheng | Fiscal Yearbook | Sichuan | Ganzi | Daocheng | Tax Yeabook |
| Shandong | Liaocheng | Linqing | Fiscal Yearbook | Sichuan | Ganzi | Dege | Tax Yeabook |
| Shandong | Liaocheng | Shenxian | Fiscal Yearbook | Sichuan | Ganzi | Derong | Tax Yeabook |
| Shandong | Liaocheng | Yanggu | Fiscal Yearbook | Sichuan | Ganzi | Ganzi | Tax Yeabook |
| Shandong | Qingdao | Jiaonan | Fiscal Yearbook | Sichuan | Ganzi | Kangding | Tax Yeabook |
| Shandong | Qingdao | Jiaozhou | Fiscal Yearbook | Sichuan | Ganzi | Kowloon | Tax Yeabook |
| Shandong | Qingdao | Jimo | Fiscal Yearbook | Sichuan | Ganzi | Litang | Tax Yeabook |
| Shandong | Qingdao | Laixi | Fiscal Yearbook | Sichuan | Ganzi | Luding | Tax Yeabook |
| Shandong | Qingdao | Pingdu | Fiscal Yearbook | Sichuan | Ganzi | Luhuo | Tax Yeabook |
| Shandong | Tai'an | Faicheng | Fiscal Yearbook | Sichuan | Ganzi | Seda | Tax Yeabook |
| Shandong | Weifang | Shouguang | Fiscal Yearbook | Sichuan | Ganzi | Shiqu | Tax Yeabook |
| Shanxi | Changzhi | Changzhi | Fiscal Yearbook | Sichuan | Ganzi | Xiangcheng | Tax Yeabook |
| Shanxi | Changzhi | Qinyuan | Fiscal Yearbook | Sichuan | Guang'an | Wusheng | Tax Yeabook |
| Shanxi | Jincheng | Gaoping | Fiscal Yearbook | Sichuan | Mianyang | Zitong | Fiscal Yearbook |
| Shanxi | Jincheng | Yangcheng | Fiscal Yearbook | Sichuan | Nanchong | Nanbu | Tax Yeabook |
| Shanxi | Jinzhong | Heshun | Fiscal Yearbook | Sichuan | Nanchong | Yilong | Tax Yeabook |
| Shanxi | Jinzhong | Qixian | Fiscal Yearbook | Sichuan | Nanchong | Yingshan | Tax Yeabook |

| Province | Prefecture | County | Data Sources | Province | Prefecture | County | Data Sources |
|----------|------------|-------------|-----------------|----------|------------|-----------|-----------------|
| Sichuan | Panzhuhua | Miyi | Fiscal Yearbook | Zhejiang | Jinhua | Wuyi | Fiscal Yearbook |
| Sichuan | Panzhuhua | Yanbian | Fiscal Yearbook | Zhejiang | Jinhua | Yiwu | Fiscal Yearbook |
| Sichuan | Suining | Daying | Fiscal Yearbook | Zhejiang | Jinhua | Yongkang | Fiscal Yearbook |
| Sichuan | Ziyang | Lezhi | Tax Yeabook | Zhejiang | Lishui | Jingning | Fiscal Yearbook |
| Tianjin | Tianjin | Jinghai | Fiscal Yearbook | Zhejiang | Lishui | Jinyun | Fiscal Yearbook |
| Tianjin | Tianjin | Jixian | Fiscal Yearbook | Zhejiang | Lishui | Longquan | Fiscal Yearbook |
| Tianjin | Tianjin | Ninghe | Fiscal Yearbook | Zhejiang | Lishui | Qingtian | Fiscal Yearbook |
| Xinjiang | Shihezi | Shihezi | Fiscal Yearbook | Zhejiang | Lishui | Qingyuan | Fiscal Yearbook |
| Yunnan | Chuxiong | Chuxiong | Tax Yeabook | Zhejiang | Lishui | Songyang | Fiscal Yearbook |
| Yunnan | Chuxiong | Dayao | Tax Yeabook | Zhejiang | Lishui | Suichang | Fiscal Yearbook |
| Yunnan | Chuxiong | Lufeng | Tax Yeabook | Zhejiang | Lishui | Yunhe | Fiscal Yearbook |
| Yunnan | Chuxiong | Mouding | Tax Yeabook | Zhejiang | Ningbo | Cixi | Fiscal Yearbook |
| Yunnan | Chuxiong | Nanhua | Tax Yeabook | Zhejiang | Ningbo | Fenghua | Fiscal Yearbook |
| Yunnan | Chuxiong | Shuangbai | Tax Yeabook | Zhejiang | Ningbo | Ninghai | Fiscal Yearbook |
| Yunnan | Chuxiong | Wuding | Tax Yeabook | Zhejiang | Ningbo | Xiangshan | Fiscal Yearbook |
| Yunnan | Chuxiong | Yaoan | Tax Yeabook | Zhejiang | Ningbo | Yuyao | Fiscal Yearbook |
| Yunnan | Chuxiong | Yongren | Tax Yeabook | Zhejiang | Shaoxing | Shangyu | Fiscal Yearbook |
| Yunnan | Chuxiong | Yuanmou | Tax Yeabook | Zhejiang | Shaoxing | Shaoxing | Fiscal Yearbook |
| Yunnan | Dali | Yangbiyi | Fiscal Yearbook | Zhejiang | Shaoxing | Shengzhou | Fiscal Yearbook |
| Yunnan | Kunming | Anning | Fiscal Yearbook | Zhejiang | Shaoxing | Xinchang | Fiscal Yearbook |
| Yunnan | Simao | Jiangcheng | Tax Yeabook | Zhejiang | Shaoxing | Zhuji | Fiscal Yearbook |
| Yunnan | Simao | Jingdongyi | Tax Yeabook | Zhejiang | Taizhou | Linhai | Fiscal Yearbook |
| Yunnan | Simao | Jinggudai | Tax Yeabook | Zhejiang | Taizhou | Sanmen | Fiscal Yearbook |
| Yunnan | Simao | Lahu | Tax Yeabook | Zhejiang | Taizhou | Tiantai | Fiscal Yearbook |
| Yunnan | Simao | Lancanglahu | Tax Yeabook | Zhejiang | Taizhou | Wenling | Fiscal Yearbook |
| Yunnan | Simao | Mojianghani | Tax Yeabook | Zhejiang | Taizhou | Xianju | Fiscal Yearbook |
| Yunnan | Simao | Ning'erhani | Tax Yeabook | Zhejiang | Taizhou | Yuhuan | Fiscal Yearbook |
| Yunnan | Simao | Simao | Tax Yeabook | Zhejiang | Wenzhou | Cangnan | Tax Yeabook |
| Yunnan | Simao | Ximengva | Tax Yeabook | Zhejiang | Wenzhou | Dongtou | Tax Yeabook |
| Zhejiang | Hangzhou | Chunan | Fiscal Yearbook | Zhejiang | Wenzhou | Pingyang | Tax Yeabook |
| Zhejiang | Hangzhou | Jiande | Fiscal Yearbook | Zhejiang | Wenzhou | Rui'an | Tax Yeabook |
| Zhejiang | Hangzhou | Lin'an | Fiscal Yearbook | Zhejiang | Wenzhou | Taishun | Tax Yeabook |
| Zhejiang | Hangzhou | Tonglu | Fiscal Yearbook | Zhejiang | Wenzhou | Wencheng | Tax Yeabook |
| Zhejiang | Heng | Changshan | Tax Yeabook | Zhejiang | Wenzhou | Yongjia | Tax Yeabook |
| Zhejiang | Heng | Jiangshan | Tax Yeabook | Zhejiang | Wenzhou | Yueqing | Tax Yeabook |
| Zhejiang | Heng | Kaihua | Tax Yeabook | Zhejiang | Zhoushan | Daishan | Fiscal Yearbook |
| Zhejiang | Heng | Longyou | Tax Yeabook | Zhejiang | Zhoushan | Shengsi | Fiscal Yearbook |
| Zhejiang | Huzhou | Anji | Tax Yeabook | | | | |
| Zhejiang | Huzhou | Changxing | Tax Yeabook | | | | |
| Zhejiang | Huzhou | Deqing | Tax Yeabook | | | | |
| Zhejiang | Jiaxing | Haining | Tax Yeabook | | | | |
| Zhejiang | Jiaxing | Haiyan | Tax Yeabook | | | | |
| Zhejiang | Jiaxing | Jiashan | Tax Yeabook | | | | |
| Zhejiang | Jiaxing | Pinghu | Tax Yeabook | | | | |
| Zhejiang | Jiaxing | Tongxiang | Tax Yeabook | | | | |
| Zhejiang | Jinhua | Dongyang | Fiscal Yearbook | | | | |
| Zhejiang | Jinhua | Lanxi | Fiscal Yearbook | | | | |
| Zhejiang | Jinhua | Pan'an | Fiscal Yearbook | | | | |
| Zhejiang | Jinhua | Pujiang | Fiscal Yearbook | | | | |