

# Reaping Corruption Gains through the Revolving Door

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## Abstract

We study how the after-office private-sector employment opportunities affect public officials' behavior while they are still in office in the context of China's primary land market. We find that officials who sold land to firms at a discount (of 17% on average) to firms are more likely to be recruited to those firms' boards of directors after they leave office. These officials were offered a 20-30% higher compensation and 50% more company shares than their peer officials turned directors who had not been involved in such transactions. Besides giving price discounts, officials are found to sell more land in less transparent ways to their prospective corporate employers, especially when they approach the retirement age. Suggestive of the corruption nature of such exchanges of favors, these results are validated as the favorable treatment and premium in salary and shareholding vanished during the surprise audits.

**Keywords:** Corruption; Revolving door; Return to Political Office; Political connections; Favor trading; Land market; China

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# 1 Introduction

Understanding politician motivation is central to modelling the selection and incentives of politicians (Fisman et al., 2014). Among many reasons for seeking office, financial gains that accrue AFTER leaving office are hard to ignore but relatively understudied. Recent studies suggest that a major channel for politicians to accumulate wealth after leaving office is through the politician-business revolving door, i.e., politicians taking on lucrative corporate employment opportunities (e.g., e.g., Vidal et al., 2012; Bertrand et al., 2014). Little is known how these potential post-office opportunities affect politician behaviour while they are still in office. The answer to this question is crucial for detecting the misuse or capture of power in the design and implementation of public policies, and for addressing the common public concern that these seemingly legitimate institutions are used to facilitate corrupt exchanges and harm public interests.

Our paper demonstrates how the after-office private-sector opportunities are used by firms to co-opt public officials into corruption deals favoring those firms in the context of the Chinese land market. The revolving door phenomenon has existed in China for some time now. The number of board directors who were formerly officials in publicly listed firms has increased markedly after the implementation of the Independent Board Director System (IBDS) policy in 2003. For example, *South Weekly*, a widely circulated newspaper in China, reported that, as of 2013, of the 2,532 firms listed on various stock exchanges, 816 had on their boards at least one former government official who served as director, and many had more than one. Corruption cases occurring through the revolving door have been increasingly exposed, which has led to serious concerns from the central government to the extent that, as part of the anti-corruption campaign which commenced in 2013, it tightened the regulations on the recruitment of former officials as company directors by setting a three-year cooling-off period and requiring these former officials to declare any conflicts of interest to the Communist Party's Organization Department.

Of the various sectors involved, the real estate sector has disproportionately employed

former officials as board directors (see Figure 1)—a sector having been identified by Xi Jinping as the “hotbed” for breeding corruption.<sup>1</sup> To a large extent, this is due to the fact that local governments (prefectural and county governments) are the de facto monopolist sellers of land usufruct rights (of up to 70 years) to private users by virtue of a policy in 1998 that assigned exclusive statutory rights over land revenues. The rapidity at which urbanization was proceeding since around the turn of the century added fuel to this land sales craze, as the stock market responded favorably to the news of a firm having acquired a plot of land in a prime location (Chen et al., 2017). This has led to firms attempting to seek windfall profits from cheap land deals, to curry favors from the officials in charge of land sales. To circumvent official inspection, these firms often promise their patrons board appointment after they leave office, which until very recently has not been strictly regulated.

[Figure 1 about here]

To demonstrate how the revolving door renders firms capable of co-opting corrupt officials, we take advantage of the data on land transactions for the period 2000-2012 and match them to the curriculum vitae data of the board directors of the publicly listed firms. We use as a quasi-experiment four rounds of surprise audits conducted by the central government, which make it drastically riskier for officials to make corruption deals with firms during the auditing period.

We begin our empirical analysis by examining the recruitment and compensation of former officials. We find that firms are more likely to recruit into their boards as directors those former officials who sold land to these firms while they were still in office and to offer them compensation that is 20-30% higher and company shares that are 50% more than those of their peer officials-turned colleagues who had not been involved in firms’ land transactions prior to their board appointment. However, the prospects of becoming a board director would be reduced by half, with the premium in salary and company shareholding vanishing

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<sup>1</sup>“We must concentrate our crackdown on corruption in critical sectors such as mining resources, land transfers, and real estate development.” (Xi, January 23rd, 2013).

altogether, if the land transactions that these former officials facilitated occurred during the auditing period—presumably because they would have been unable to offer as large a discount as they would in normal times. Even after controlling for future land purchases (a proxy of firms wanting to develop political connections with the current officials), the effect of past land transactions on the recruitment, compensation and shareholding of the former corrupt officials remains. This evidence shows that corporate employment opportunity is used as a form of deferred benefits to reward patrons.

Next we examine how public officials' behaviours are shaped by those deferred benefits while they were still in office. Controlling for the quality of the land transacted and the method of transactions, we find that the price discount provided by the officials prior to their joining the firm averaged 17% in normal times but vanished in the auditing periods. Furthermore, firms tend to buy more land and buy land through less transparent methods in the places where local officials later join the firms, especially outside of the auditing period. These effects of officials in office on their prospective corporate employers are on top of the effect of those who are already in the board.

If officials grant favor to firms in exchange of post-office benefits, we would expect that officials close to their retirement ages have stronger incentives to do so. Our finding supports this conjecture. We find that it is mainly those officials within three years prior to their retirement age who give favors to their prospective employers, including lower prices, larger quantities, and less transaction methods which imply more discounts.

To rule out the concern that our results may be driven by unobserved time-varying firm characteristics, we control for firm-year fixed effects. Furthermore, to address the concern that our results may be driven by firms' unobserved advantages in the markets in certain localities, we examine whether the same findings would occur in the secondary land market, a market in which the local government is replaced by a number of market participants who originally purchased the land use rights. We find that, firms do not condition the recruitment or remuneration of officials-turned directors based on transactions in this market nor have

they enjoyed any price discounts prior to the hiring of any officials-turned directors. The results from robustness checks consistently support our hypothesis that public officials tend to grant favors to firms for the deferred benefits after leaving office.

The remainder of this paper proceeds as follows. Section 2 discusses the literatures and our contributions. Section 3 introduces the institutional background of China’s land market. Section 4 describes the data and variables. Sections 5 and 6 examine, respectively, whether firms take past favors into account in their decisions regarding the recruitment and compensation of ex-officials as their directors. Section 7 provides evidence that public officials give favors to firms when they were still in office prior to assuming a firm’s directorship. Section 8 presents the robustness checks, and Section 9 concludes the paper.

## **2 Literature Review**

Our paper contributes to the literature on politician motivation. Although a variety of assumptions on politician motivation are made in theoretical literatures, the empirical explorations remain limited. Previous studies mainly focus on estimating the financial gains accrued to politicians or their family members while they in office (e.g., Fisman et al., 2014; Eggers and Hanmueller, 2009; Folke et al. 2017; Fafchamps and Labonne, 2014; Amore et al., 2015; Gagliarducci and Manacorda, 2015). While some studies provide suggestive evidence on the relationship between those benefits and politicians’ rent-seeking activities, the evidence on those benefits affect politician behavior remain scant (e.g., Fisman et al., 2014). Even less is known how other sources of benefits affect politicians’ behavior. Our study adds to this literature by not only estimating the after-office gains but also showing how the behavior of politicians in power are affected by those gains.

Our paper also contributes to the growing literature aiming at understanding the roles that the politician- business revolving door plays in a variety of contexts (e.g., Vidal et al., 2012; Luechinger and Moser, 2014; Cornaggia et al., 2016; Bertrand et al., 2014). Different from previous studies that portray the revolving door as essentially a connection device,

we find evidence that it facilitates deferred payment to officials for business favors they previously provided.

Our work also contributes to the burgeoning literature on corruption (see Olken and Pande, 2012; Banerjee et al., 2012 for an overview), and studies on political connections (Khwaja and Mian, 2005; Li et al., 2008; Cingano and Pinotti, 2013; Coulomb and Sangnier, 2014; Fisman and Wang, 2015). To the best of our knowledge, our paper is the first to empirically examine *both* sides of the market for corruption. The evidence on the trading of favors through the revolving door identifies a channel of corruption hidden in a widely existing institutional arrangement. Fang et al. (forthcoming) shows that the corruption gains of the politicians increase with their power. Our findings provide direct evidence that part of the returns to the public officials depend on the corruption deals they strike while in office.

### 3 Institutional Background

Since the 1990s, it has become increasingly commonplace for listed firms in China to recruit former government officials into their boards to serve as directors, a practice gaining even greater popularity with the formal introduction by the China Securities Regulatory Commission (CSRC) of a policy in 2001, concerning company directorship. Formally instituted as the Independent Board Director System (IBDS) policy, it stipulates that, by 2003, a listed firm is required to fill up at least one third of its board with independent directors (see, specifically, *Guidance Regarding the Establishment of the Independent Directors System in Listed Companies*).

The rationale behind the *Guidance* is that independent directors serve as checks and balances for major shareholders and/or high-profile executives; however, in reality, the majority of independent directors are nominated by these major shareholders and thus fail to serve this purpose effectively. By the same token, while the *Guidance* specially prohibits former officials from joining those firms whose businesses are directly related to the officials' purview

of authority while in office, firms frequently ignore this.

The tendency of firms, particularly real estate firms, to recruit former officials into their boards as directors has recently attracted much attention from the media, which has exposed a plethora of corrupt deals in the primary land market. Indeed, in a situation in which real estate prices continue to rise, with many firms unrelated to real estate development also planting their feet in this lucrative market, it is little surprise that the primary land market was singled out by Xi Jinping as a “hotbed” for corruption when he came into office in 2012.

Land in China is allocated by local governments through leasehold sales. At the 15th National Congress of the Communist Party of China in 1998, a statutory bill, titled “The Revised Law of Land Management”, was passed, granting local governments de jure ownership over land in their geographical jurisdictions (Han and Kung, 2015; Lin and Ho, 2005; Kung et al., 2013). The result essentially amounts to the assignment of exclusive statutory rights to local governments over revenue obtained from selling the land usufruct rights. Local governments can sell the usufruct right for up to 70 years to eligible parties. Those who obtain the usufruct right may then resell it to a third party before expiration. Therefore, the land market consists of two markets: the primary market where the local government is the sole seller, and the secondary market, where the local government is not involved.

Transactions in the primary land market can be carried out in one of four ways: bilateral agreement (*xieyi*), invited bidding (*guapai*), listed bidding (*zhaobiao*) and English auction (*paimai*). Bilateral agreements are essentially negotiated behind closed doors and thus they represent the least transparent transaction method that is most likely subject to manipulation. For this reason, it was banned in 2002 by the No. 11 regulation (“Regulation on the Transaction Method of Leasehold Sale of Land by Local Government”) issued by the Ministry of Land and Resources. From then on (and as of now), the law requires that every land transaction involving the local government as the seller use open auctions. However, as with many other policies in China, officials are often able to find ways to circumvent these requirements. Land policy is no exception, as illustrated by an *Asian Times* report (in June

2008), pointing out the inefficacies of the policy formulated to curb corruption in the land market. For instance, after auditing land sales in 11 prefectures, the National Audit Office of China concluded the following:

*“Chinese government efforts to clean up land sales, a major source of official corruption..., face a rethink... . . . according to an investigation published by the National Audit Office (NAO) last week. ... Some prefectures have given a flexible interpretation to the rules and the auction system has often existed in name only, resulting in a lack of competition among developers and the winning developer being able to secure the land at below its true market value.”<sup>2</sup>*

However, the central government’s effort to combat corruption has only made corrupt officials more cautious, rendering the detection of their illegitimate activities more difficult. Indeed, to reduce the prospects of being detected, firms make use of the revolving door to rewarding corrupt officials for providing firms with a price discount when they were in charge of selling land, as well as recruiting former officials as directors to help establish connections with those officials currently in charge of land sales.

To curb corruption in the primary land market, in 2005, the central government began to launch a series of “surprise audits”. Altogether, four rounds of surprise inspections were conducted in 2005, 2007, 2009 and 2011 in a total of 585 counties and/or prefectures. Each round of inspections lasted between 10 and 18 months.

## **4 Data Sources and Variable Construction**

We obtain our data mainly from two sources. The first source of data is the annual reports released by firms listed on the Shenzhen and Shanghai stock exchanges from 2000 to 2012, a good portion of which we have acquired from three major data vendors in China: Wind Information, China Stock Market and Accounting Research (CSMAR), and RESSET. These

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<sup>2</sup>The English translation of the original report is cited from Cai et al. (2013).



annual reports contain the resumes of both the high-profile executives (including the CEO, the vice CEO, the financial director and the human resources director) and the board directors of each firm, as well as various productivity and performance measures of the firms. Information on the compensation and shareholding of directors and senior executives is also included. Altogether, there were a total of 2,665 publicly listed firms in China during 2000-2012. We cross-check the data provided by these vendors and then construct a comprehensive dataset of all the directors and high-profile executives.

The second source of data pertains to information on land transactions between 2000 and 2012, as released by the Ministry of Land and Resources, which can be obtained from the website of the Land Transaction Monitoring System (<http://www.landchina.com/>). The Law of Land Management requires prefectural governments to report information on each land transaction in their jurisdictions, including the size of the land parcel, total payment, transaction date, names of both the seller and the buyer, location of the land parcel (both the area code and precise address), method of transaction (e.g., English auction, Dutch auction and so on), a 3-digit industry code describing land usage, quality score of each land parcel rated by the official in charge before the transaction took place (based on a 20-point scale), legal floor area ratio, and other fine details. In total, 1,126,269 land parcels changed hands during the 2000-2012 period.

We then match the firm data with the land transaction data based on a firm's full name, including its subsidiaries. Of the 2,665 publicly listed firms in China, 1,673 (62.78%) purchased land in the primary land market from 2000 to 2012. The 30,871 land transactions conducted by these 1,673 listed firms involve a total payment of 1,536 billion RMB (or 224 billion US dollars at the 2017 price), which accounts for 12.31% of total land payments.<sup>3</sup> In addition, we have collected transaction data on the land parcels purchased by these firms in the secondary land market. The total payment for the 5,211 transactions in this market amounted to 15 billion RMB, accounting for 1% of the total trading volume in the same

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<sup>3</sup>1 RMB is approximately 0.15 USD.

period.

### ***Describing the Data on Board Directors and Senior Executives***

Panels A and B of Table 1 report the summary statistics of the board directors and senior executives, respectively, in our sample of land-purchasing firms. As panel A shows, as many as 91.3% of board directors are not former officials. The officials-turned directors who joined the board soon after their current employers purchased land in their jurisdiction account for 1.6% of all the directors, and the officials-turned directors without involvement in previous land transactions with the firms account for 7.1%. In other words, among all the officials-turned directors, approximately 16.4% were involved in land transactions with their current employer before joining the firms.

The average annual compensation is approximately 114 thousand RMB for those who had not been involved in a firm's previous land purchases and is approximately 209 thousand RMB for those who had likely been involved. The annual compensation is comparable to that of the annual wages of public officials. The average age of these officials-turned directors is 54 years, so they are approximately 6 years older, on average, than board directors who are not former officials. These officials-turned directors are more likely to be delegates of the Chinese People's Political Consultative Conference (CPPCC) or National Party Congress (NPC) and the members of the Chinese Communist Party (CCP), which in previous studies has been frequently employed as a measure of political connections (Li et al., 2008). These officials turned directors are also more likely to have connections with banks. Similar patterns are found among the executives (panel B of Table 1). Once again, former officials account for less than 4% of all executives who do not differ much in age from their nonofficial peers. As with the board directors, the senior executives who are former officials are more likely to be delegates of the CPPCC or NPC as well as have connections with banks.

[Table 1 about here]

### ***Measuring Land Quality***

The prices of land can vary enormously by location, associated facilities and other char-

acteristics representing quality, which we attempt to control for in the regressions using a number of measures. The first pertains to the quality scores of subjective evaluations made by the local officials in charge of land sales. A major concern with this measure is that the quality scores are subject to manipulation by the local officials. The second measure is the average district land prices.<sup>4</sup> However, while this can proxy for the quality of land in the district as a whole, it masks much of the variation among land parcels within the same district.

To construct a more accurate measure of land quality, we compare the land parcels purchased by the listed firms with those purchased by the non-listed firms in the same neighborhood (e.g., within a 500-meter radius) in the same year.<sup>5</sup> This requires matching land transactions on a parcel-by-parcel basis between the two types of firms in the same year within a well-defined radius, for example, a 5-kilometer, a 1-kilometer, or a 500-meter radius, as illustrated in Figure 2. Doing so allows us to make a fair comparison (more on this below).

[Figure 2 about here]

### ***Using the Variation in the Timing and Location of Surprise Land Audits***

We make use of four rounds of unannounced audits conducted between 2005 and 2011 as a quasi-natural experiment to examine the possible, discontinuous changes in officials' behavior during the auditing period. Given that the risks of providing discounts to firms in those periods increase incommensurately, officials would refrain from offering favors. However, that does not imply that they would stop selling land altogether—especially for those transactions not involving price discounts. Following Ferraz and Finan (2008, 2011), we collect the exact dates of the auditing campaigns as they were conducted in the 585 counties and/or prefectures between 2005 and 2011.

### ***Land Prices and Quality by Subsequent Recruitment and Auditing/Nonauditing***

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<sup>4</sup>A city typically consists of three to six districts.

<sup>5</sup>Note that non-listed firms purchased approximately 30 times more land parcels than listed firms in the full sample.

## *Periods*

Table 2 first shows the average logged unit prices of land purchased by the listed firms. Specifically, the left-hand column presents the average price paid by firms having recruited local officials to their board in the three years after a transaction took place, whereas the right-hand column gives the price paid by those firms without such recruitment. It is plain to see that the former paid 25.4% lower prices on average. In the second row, we compare the land transactions of non-listed firms within a 500-meter radius of those transactions of the listed firms with recruitment (left-hand column), with those of the non-listed firms within the corresponding 500-meter radius of the listed firms but without recruitment. Here we find that the parcels comparable in quality to those purchased by the firms that subsequently recruited local officials fetched 30.7% higher prices on average than the parcels purchased by firms without such recruitment, suggesting that the former tended to purchase land parcels in more prime locations but paid lower prices (e.g., they paid 5,690 instead of 6,266 *yuan*). This implies that controlling for the quality of land yields an even higher price discount.

[Table 2 about here]

We further examine whether the pattern shown in Table 2 differs by period. The upper panel of Table 3 presents the average land price in the nonauditing periods when neither firms nor officials were subject to auditing pressure, whereas the lower panel tabulates the average land price in the auditing periods. As expected, firms that subsequently recruited local officials obtained a discount of up to 35.1% in neighborhoods that were 28.9% more expensive. In the auditing periods, however, these firms paid 15.4% more on average than those without recruitment, presumably because it would be far more difficult for the former to accept favors without arousing suspicion during the auditing periods.

[Table 3 about here]

Table 4 presents the summary statistics of the variables for land transactions (panel A) and firms' characteristics (panel B). Columns (1) and (2) of panel A, respectively, report the means and standard deviations of the full sample of land transactions in the primary

market, columns (3) and (4) report the subsample of transactions followed by the recruitment of a local official into the firm's board, and columns (5) and (6) report the transactions not followed by such recruitment. For the full sample, the average land price is 1,066 RMB per square meter, which conceals a substantial variation (the standard deviation is 2,168 RMB). On average, land parcels purchased before a local official joining a firm tend to be larger and cost less per square meter than those whose purchases were not followed by the entry of a local official into a firm's board. In addition, transactions followed by the recruitment of officials turned directors are less likely to be carried out through English auctions and listing auctions and are more likely to be conducted through methods that are more prone to corruption, such as bilateral agreement and invited bidding.

As a comparison, columns (7)-(10) of Table 4 further report the means and standard deviations of the variables concerning transactions followed by the recruitment of nonlocal official directors from the transaction locality and not followed by such recruitment. This comparison does not yield similar patterns as that in the case of the recruitment of local official directors. In particular, the transactions followed by the recruitment of nonlocal official directors fetch slightly lower prices than the transactions not followed by such recruitment, but the average vicinity prices of the transacted land parcels are also lower. It is unclear whether firms received more favorable prices before a former official not from the transaction locality entered the board.

Panel B of Table 4 provides the descriptive statistics for firm characteristics. It is worth noting that for firms having land transactions followed by the recruitment of local officials turned directors, a larger percentage of their shares is owned by state and foreign shareholders. Such firms also have fewer employees than firms without the recruitment of local officials turned directors following transactions. Moreover, 43.8% of transactions followed by the recruitment of local officials turned directors occurred in firms' registration or headquarter cities, and this proportion is 15.6% for transactions not followed by such recruitment.

[Table 4 about here]

## 5 Is Directors' Recruitment Conditioned on Previous Land Transactions?

Our first goal is to examine whether a firm's decision to recruit a former official into its board as a director depends on his/her involvement in a previous land transaction with the firm, in general, and whether it occurred in the auditing period, in particular.

We adopt the method used by Bayer et al. (2008) to examine whether the propensity of a firm recruiting a director from a specific prefecture, compared to the same firm's propensity to recruit a director from other prefectures in the same year, is higher if the firm had land purchases in that prefecture within the past three years, and whether the difference in the propensity (if any) changes if the purchases occurred during the auditing period. To do so, we construct a sample of pairs of each director and each prefecture. Overall, we have 6,863,648 pairs of observations. The regression is specified as follows:

$$\begin{aligned}
 LocalOfficial_{icjt} = & \beta_0 + \sum_{l=1}^3 \beta_l Purchase_{cjt-l} + \sum_{l=1}^3 \gamma_l Purchase_{cjt-l} \times Audit_{ct-l} \\
 & + \tau_{jc} + \psi_{jt} + \omega_{ct} + \zeta_{ijct},
 \end{aligned} \tag{1}$$

where  $LocalOfficial_{icjt}$  equals 1 if director  $i$  in firm  $j$  who is *newly* appointed in year  $t$  is a former high-ranking official having served in prefecture  $c$ , and 0 otherwise;  $Purchase_{cjt-l}$  equals 1 if firm  $j$  purchased land from prefecture  $c$  in year  $t-l$ , and 0 otherwise; and  $l = 1, 2, 3$ . To eliminate the possible confounding effects associated with the unobserved characteristics of prefectures, firms, and years, we control for the prefecture-by-firm, firm-by-year, and prefecture-by-year fixed effects:  $\tau_{jc}$ ,  $\psi_{jt}$ , and  $\omega_{ct}$ , respectively. We include only three lags of land purchases in the specification because the term of board directors is limited to only three years, not to mention that only a few transactions occurred more than three years prior to the appointment of a new director insofar as our data are concerned. All standard errors are clustered at the prefecture-firm level.

In specification (1),  $\delta_l$  ( $l = 1, 2, 3$ ) measures how having previous land transactions in-

creases the likelihood of having an official-turned director from the transaction prefecture;  $\gamma_l$  ( $l = 1, 2, 3$ ) measures whether the relationship between previous land purchases and the hiring of officials-turned directors depends on whether the pertinent transaction occurred in the nonauditing period when firms likely received favors. If firms' reward to former officials is adjusted based on the favors granted by those officials, we would expect  $\gamma_l$  to be negative.

Table 5 presents the estimation results. Before estimating Equation (1), we first examine whether an official's likelihood of being hired as a director depends on the firm's past land purchases by excluding the interaction terms between the indicators for auditing periods and the indicators for past land purchases. We add as independent variables the dummy variables indicating if a firm had purchased land in the prefecture previously overseen by the officials-turned directors in the past one, two, or three years, one by one. Columns (1)-(3) of Table 5 report the results, showing that the likelihood of hiring former officials from a prefecture where a firm had purchased land in the past year as a new board director is 2.7-4.0 percentage points higher than that of recruiting an official from a prefecture where the firm had not purchased land. Land purchases two or three years ago also increase the likelihood of appointment, albeit to a lesser extent.

[Table 5 about here]

However, for what purpose do firms hire former officials involved in previous land transactions? Do they do so primarily to reward them or with the hopes of benefiting from future land purchases? We address these questions by estimating Equation (1) which includes interactions between the indicator variables for land purchases in the previous three years and the indicator variable for whether the land purchases occurred during the auditing periods ( $Purchase_{cjt-l} \times Audit_{ct-l}$ ,  $l = 1, 2, 3$ ). Column (4) of Table 5 reports the pertinent estimates. Consistent with our conjecture, all of the interactions between the land purchase indicators and the auditing indicator ( $Purchase_{cjt-l} \times Audit_{ct-l}$ ,  $l = 1, 2, 3$ ) are negative, with a magnitude offsetting half of the positive effects of past land purchases on the expected recruitment.

We further study the overall effect of land purchases in the past three years by replacing the three indicators with one overall indicator for all three years. Columns (5) and (6) report the results without and with the interaction between this indicator and the indicator *Audit*, respectively. While land purchases in the past three years increase the likelihood of hiring a former official in the transaction prefecture by approximately 4.6 percentage points, compared to that of hiring a former official from other prefectures without transactions, previous land purchases made in the auditing period only increase this likelihood by less than half—2.1 percentage points. Note that the unit of observation in this specification is each pair of a newly appointed director and a prefecture. The average likelihood of having a director from a particular prefecture is small given the limited size of the board. The mean of the outcome variable in this specification is 1.5%, and the standard deviation is 12.21%. Compared to the mean, our estimated coefficients indicate that having land purchases in a specific prefecture in the nonauditing period makes a firm twice more likely to recruit a former official from this prefecture into its board.

One concern regarding the above result is that previous land transactions may be positively correlated with the likelihood of purchasing land in the same prefecture in the future. Should that be the case, our result would merely capture firms' efforts to build political connections aimed at facilitating future transactions, rather than rewarding former patrons. To address this concern, we add as controls the three-year leads of land purchases in Equation (1). The result is shown in column (7) of Table 5. While planned land purchases increase the likelihood of hiring former officials from the relevant local government, the effect of previous land purchases on this likelihood remains robust, and the magnitude of the effect does not change, suggesting that our finding is not driven by planned land purchases.

Thus, these findings demonstrate that the politician-director revolving door serves two purposes. First, consistent with the previous literature, firms hire former officials to develop connections for facilitating future deals. The second and more novel finding is that, perhaps as a signal firms' commitment to remunerate their future patrons, the revolving door also



serves as a mechanism for firms to reward their former patrons.

An alternative explanation is that firms recruit board directors from transaction prefectures or strategic reasons, especially to exploit their local information or knowledge to facilitate the development of purchased land. To test whether this consideration drives our result, we conduct a placebo test by examining the likelihood of hiring a local nonofficial. We estimate specifications similar to those for columns (5) and (6) of Table 5, with the outcome variable being  $LocalNonofficial_{ijct}$ , which equals 1 if director  $i$  newly recruited by firm  $j$  from prefecture  $c$  in year  $t$  was not an official, and 0 otherwise. Columns (8) and (9) of Table 5 report the results. Past land purchases in a specific prefecture reduce the likelihood of recruiting a nonofficial from the transaction prefecture if the purchases occurred in the nonauditing period, while the likelihood of such recruitment increases if the purchases occurred in the auditing period. This finding is not supportive of the hypothesis that firms hire former officials for their local knowledge.

## 6 Is the Compensation and Shareholding of Officials Turned Directors Conditioned based on Past Land Purchases?

Next, we examine whether a firm remunerates a director conditioned based on the possibility of having received favors from him/her in previous land purchases. Again, we exploit the fact that the unannounced audits make it more difficult for officials to provide firms with favorable treatment. The baseline regression for compensation can be specified as follows:

$$\begin{aligned}
& \text{Log}(AnnualCompensation)_{icjt} \\
& = \rho_0 + \rho_1 ExOfficial_{ijc} + \rho_2 PastLandPurchase_{icj} \\
& + \rho_3 ExOfficial_{ijc} \times PastLandPurchase_{icj} \\
& + \rho_4 ExOfficial_{ijc} \times PastLandPurchase_{icj} \times Audit_{icj} \\
& + Z_{ijct}\sigma_1 + \phi_j + \omega_c + \mu_t + \epsilon_{ijct},
\end{aligned} \tag{2}$$

where  $\text{Log}(\text{AnnualCompensation})_{icjt}$  is the logged annual compensation in year  $t$  of director  $i$  who worked in prefecture  $c$  before joining firm  $j$ ;  $\text{PastLandPurchase}_{icj}$  is an indicator for firm  $j$  having purchased land in director  $i$ 's past work prefecture  $c$  within three years before she/he joined firm  $j$ ;  $\text{ExOfficial}_{ijc}$  is an indicator that takes the value of 1 if director  $i$  was an official in the local government in prefecture  $c$  before entering firm  $j$ ; and  $\text{Audit}_{icj}$  indicates that the past land purchase made by firm  $j$  within three years before director  $i$  entered the firm occurred during the auditing period. A vector of director and firm characteristics is controlled for, including the director's age, gender, years of schooling, CPPCC membership, NPC membership, CCP (Chinese Communist Party) membership, connections to banks, proportions of the firm's shares owned by the state, foreign parties, and the board, and the size of employment. We also control for firm and year fixed effects. All standard errors are clustered at the firm level.

In Equation (2),  $\rho_1$  measures the general premium enjoyed by an official-turned director;  $\rho_2$  measures the benefits obtained by a nonofficial director from a prefecture where the firm purchased land before he/she entered the firm. We are particularly interested in  $\rho_3$ , which measures the extra premium that the officials-turned directors can obtain if the firm had purchased land in their jurisdiction in the nonauditing period. That is,  $\rho_3$  measures the "commission" that the firm provides to its former patron. If the firm adjusts the "commission" based on favor provided by the director while in office, we would expect that "commission" to be smaller or vanish if the land purchase occurred in the auditing period. Therefore,  $\rho_4$ , which measures the effect of audits on the "commission", is expected to be negative.

Before estimating Equation (2), we first examine whether past land purchases in directors' former work cities differently affect the compensation of the officials-turned directors and nonofficial directors. Column (1) of Table 6 first reports the estimates. The officials turned directors obtain a 5.1% larger compensation package than that of other directors. The coefficient on the interaction term  $\text{ExOfficial}_{ijt} \times \text{PastLandPurchase}_{icjt}$  shows that, if a

firm had purchased land in the jurisdiction of a former official, who is now a director of the firm, then that director enjoys an additional premium of 14.1% over the other officials-turned-directors. In contrast, the insignificant coefficients on the variable  $PastLandPurchase_{icjt}$  show that even if the nonofficial directors had previously worked in the prefectures where the firms had purchased land and even where they may have provided local information, these directors do not enjoy such a premium. This finding further confirms that the extra compensation premium only accrues for those directors who were officials in the prefectures where land purchases were made.

[Table 6 about here]

Does this extra compensation premium reflect a reward to the patrons for providing preferential treatment in previous land transactions? We turn to estimate the full model, as specified in Equation (2), which includes an indicator variable for the director being a former official who was involved in the firm's previous land transactions that occurred in the auditing periods ( $ExOfficial_{ijt} \times PastLandPurchase_{icjt} \times Audit_{ct}$ ). As reported in column (2) of Table 6, while involvement in previous land transactions increases officials turned-directors' compensation by approximately 27.8%, the same involvement during the auditing period yields zero benefits for these officials turned directors (the sum of the coefficients,  $0.278 + (-0.303) = -0.025$ , is not significantly different from zero). We further include firm-by-year fixed effects to eliminate possible confounding influences. The results remain robust (column (3) of Table 6). In other words, the officials turned directors whose ability to provide firms with favors is greatly limited due to the surprise audits do not enjoy the extra commission enjoyed by patron directors. This finding provides strong support for our hypothesis that firms reward corrupt officials by remunerating them more generously.

Finally, we examine whether similar patterns can be found among senior executives. Columns (4)-(6) of Table 6, which replicate the specifications in columns (1)-(3) using the sample of senior executives, show that previous land purchases tend to increase officials turned executives' compensation, but the effect does not differ between purchases in and out

of the auditing period. This result is more likely to suggest that executives are rewarded for their capability of striking a land deal but not for the potential favors received from the deal. This finding suggests that a more important channel for firms to reward corrupt officials is by hiring them as board directors instead of as senior executives.

This compensation is arguably only a small proportion of the rewards to board directors. In reality, some firms provide directors with a handsome amount of company shares. We further examine whether officials-turned directors' shareholding depends on their previous involvement in land transactions with the firm using a similar specification as that in Equation (2).

The results are reported in Table 7. Column (1) shows that, on average, officials-turned directors hold 17.6% fewer shares than do nonofficial directors. This result is not surprising because firms usually hire officials-turned directors as independent directors who are not major shareholders. Interestingly, officials-turned directors' involvement in previous land transactions with the current employer entitles them to hold 50.4% more shares than their peer officials-turned directors who had not been involved in such land transactions.

[Table 7 about here]

We further investigate whether the larger number of shares held by those officials-turned directors is also patterned upon whether the land purchases were made in the auditing period by including the three-way interaction term among the indicators for past land purchase, former officials and auditing ( $ExOfficial_{ijc} \times PastLandPurchase_{cjt} \times Audit_{ct}$ ). The result (presented in column (2) of Table 7) shows that the officials-turned directors who had been involved in the firm's past land purchases enjoyed 80% more shares than officials-turned directors without such involvement, if the transactions occurred in normal times; these benefits vanish, however, if the land purchases occurred in the auditing period. To eliminate the potential confounding factors at the firm-by-year level, we further control for the firm-year fixed effects in column (3) of Table 7. The results remain robust.

A main concern is that firms are more likely to provide stronger incentives to those em-

employees most capable of enhancing firms performance and that such unobserved capabilities may be correlated with these employees' past involvement in land transactions. To address this concern, we apply the same estimation strategy to high-ranking executives who have influenced firms' operations more than the directors. Presented in columns (4)-(6) of Table 7, the result shows a different pattern from what we found for board directors. While executives involved in past land purchases hold 10.8% more shares (significant only at the 10% level), there is no difference between officials-turned and nonofficial directors in this regard, and as such, the observed premium is more likely to capture the effect of executives' ability. Moreover, the premium does not depend on whether the land parcel was purchased in the auditing period or not (Column (5)) and disappears once firm-year fixed effects are controlled for. Thus, the contrast between the board directors and executives lends further support to our conjecture that recruiting officials-turned directors is one way to reward those officials for having provided favors to their clients while in office.

Concerns may still remain that firms may hire such officials-turned directors mainly to facilitate future transactions, instead of reciprocating the favors received in the past. To address this, we add as controls the interaction terms between the indicator *ExOfficial* and the three-year leads of land purchases in Equation (2). The results are shown in Table 8. Note that the size of the sample used for regressions in Table 8 is smaller than that for Table 7 because of the inclusion of the lead terms. Nevertheless, the effect of past land purchases on officials-turned directors' compensation and shareholding remains robust, and the magnitude is even larger, suggesting that our finding is not driven by planned land purchases.

[Table 8 about here]

Based on the above estimates, we can calculate the size of the extra benefits accrued for an official-turned director who had likely provided favors to the firm in land transactions, namely, the likely patrons turned directors. Those likely patrons turned directors had 27.8% higher compensation than those who failed to provide favors. Given that the average annual

compensation of a director is approximately 159,659 RMB (Table 1), a likely patron turned director enjoys a compensation premium of 133,150.6 RMB ( $= 27.8\% \times 159,659 \times 3$ ) more than that of their colleague who failed to provide favors before joining the firm. In addition, a likely patron turned director holds 80% more company stock shares than his/her colleague who failed to provide favors. Given that the average value of shares held by an official turned director is approximately 5.58 million RMB (Table 1), it is estimated that a patron turned director owns an extra share value of 4.46 ( $= 5.58 \times 80\%$ ) million RMB more than their peer officials-turned directors without involvement in land transactions in normal times. Adding up the compensation premium and the share-holding premium, a likely patron turned director obtains approximately 4.60 million RMB more than other directors, a similar magnitude as the annual compensation of a CEO in a publicly listed firm and 40 times the annual revenue from the privileged pension scheme for a mayor-level official.

Overall, we find strong evidence that firms' rewards to former officials through the revolving door highly depends on the possibility of having received favors from those officials in the past.

## **7 Did Officials Turned Directors Give Favors to Their Prospective Employers?**

In light of this extraordinarily large premium (in both compensation and company shares), we specifically examine the favors that these officials-turned directors may have provided to firms when they were still government officials by examining the prices, the methods and the quantity of transactions.

### **Price discounts and future employment**

We first compare the prices of the land parcels connected to the subsequent recruitment of the official in charge of the sale with those standalone transactions. We also examine the price differentials (if any) between these two types of transactions in the auditing period.

Our main specification is as follows:

$$\begin{aligned}
\log(\text{price})_{ijct} &= \beta_0 + \beta_1 \text{PreHiring\_LocalOff}_{ijct} + \beta_2 \text{PreHiring\_localNonOff}_{ijct} \\
&+ \beta_3 \text{PreHiring\_NonlocalOff}_{ijct} + \beta_4 \text{Audit}_{ct} \\
&+ \beta_5 \text{PreHiring\_LocalOff}_{ijct} \times \text{Audit}_{ct} \\
&+ \beta_6 \text{PreHiring\_LocalNonOff}_{ijct} \times \text{Audit}_{ct} \\
&+ \beta_7 \text{PreHiring\_NonLocalOff}_{ijct} \times \text{Audit}_{ct} \\
&+ \phi_1 \text{LPC}_{jct} + \phi_2 \text{LE}_{jct} + \phi_3 \text{GPC}_{jt} + X\gamma + \lambda_t + \rho_j + \theta_c + \mu_{ijct} \quad (3)
\end{aligned}$$

where the dependent variable  $\log(\text{price})_{ijct}$  is the logged unit price of land parcel  $i$  purchased by firm  $j$  in city  $c$  at year  $t$ ;  $\text{PreHiring\_LocalOff}_{ijct}$  is an indicator variable for land transaction  $i$  in prefecture  $c$  at time  $t$  occurring within 3 years before a former official from city  $c$  joined the board of firm  $j$ ;  $\text{PreHiring\_LocalNonOff}_{jct}$  and  $\text{PreHiring\_NonLocalOff}_{jct}$  are indicators for land transaction  $i$  in prefecture  $c$  at time  $t$  occurring within 3 years before a nonofficial director from the same city and an official turned director from a different city, respectively, joined the board of firm  $j$ ; and  $\text{Audit}_{ct}$  is an indicator for city  $c$  being audited in year  $t$ .  $X$  is a vector of control variables including the characteristics of land parcels, firms and cities. The fixed effects of firms, cities and years are all included. In various specifications, we also control for the higher dimensions of fixed effects such as firm-by-year fixed effects.

To distinguish the patronage provided by director-to-be officials from the bargain achieved through existing board directors as of the pertinent transactions, we further control for various measures of connections constructed based on the existing board directors. For instance, we define locality-specific political connection ( $\text{LPC}_{jct}$ ) as the kind of connection derived from an official who has worked in the local government in city  $c$  at time  $t$  before joining a firm, whereas general political connection ( $\text{GPC}_{jt}$ ) is a connection associated with a board member having worked in a local government in general. We also construct a measure

of local experience,  $LE_{jct}$ , a variable indicating that a director on the board of firm  $j$  had previously worked in locality  $c$ . All standard errors are clustered at the prefecture level.

Table 9 presents the estimation results. Column (1) of Table 9 shows the result of estimating Equation (3) without including the interaction terms between the *Audit* indicator and the three indicators of the pre-hiring period of local officials, local nonofficials and nonlocal officials (*PreHiring\_LocalOff*, *PreHiring\_LocalNonOff*, *PreHiring\_NonLocalOff*). We find that the price of a land parcel whose purchase is followed by the hiring of a local official from the locality where the transaction took place is 14.2% lower than that of other parcels purchased by the same firm. The estimate is statistically significant at the 1% level. The result implies that a local official who intends to join a firm later is inclined to provide a price discount over the land that he/she had the authority to sell. In contrast, land parcels purchased before any local nonofficial or nonlocal official joins a firm's board are not associated with such price discounts, suggesting that the estimated price discount prior to a local official joining the board arises from his/her patronage.

The effect of the existing board members is also worth noting. The coefficient on the locality-specific political connection measure ( $LPC_{jct}$ ) is statistically significant and reveals that having a director who has connections with the pertinent local government selling the land parcel helps the firm obtain an extra discount of 14.9%. This result is consistent with the findings in the previous literature that firms with directors connected to the government tend to receive favorable treatment. The novelty of our findings is that, even after controlling for this connection effect of existing directors, we still find strong patronage effects arising from director-to-be officials.

[Table 9 about here]

To validate the rationale underlying the identification strategy in Sections 5 and 6, we examine whether the price discount may change during the auditing period by estimating Equation (3). Reported in column (2) of Table 9, the coefficient of *PreHiring\_LocalOff* shows that a land transaction that took place immediately before the hiring of a local official



in charge of the sale is 17.3% less expensive than other land purchases if it took place in the nonauditing period. In contrast, land purchases that preceded the hiring of an official from a jurisdiction other than where the land was purchased, or a local nonofficial, received no price discounts. The pattern is the opposite if the transaction occurred in a surprise audit period. As shown by the negative coefficient of the interaction term  $PreHiring\_LocalOff \times Audit$ , firms pay 40.9% more for those land transactions prior to the hiring of local officials in the auditing period than for other transactions.

The coefficient on  $PreHiring\_LocalOff \times Audit$  is of a greater magnitude than that on  $PreHiring\_LocalOff$ , probably because there are unobservable reasons for a firm to purchase land in a certain year, even when the city is being audited, and when the price of land is high. To correct for this type of selection problem, we further control for the firm-by-year fixed effects. The results are reported in column (3) of Table 9. We find that the price of land purchased in the nonauditing period, which is followed by the hiring of a local official, is 18.3% lower than that not succeeded by such hiring. The coefficient on  $PreHiring\_LocalOff \times Audit$  is positive and comparable in magnitude to the coefficient on  $PreHiring\_LocalOff \times Audit$ , indicating that, for transactions that occurred during the auditing period the price discount that local officials provide to their prospective employer vanishes completely.

Concerns remain that the estimated price discounts provided by director-to-be officials may reflect the difference in the quality of the land parcels from those purchased under other circumstances. For instance, land sold immediately before an official leaving office may tend to be of lower quality, or it may be located in a faraway corner in the city. To address this concern, we control for the average neighborhood prices within a 5 km radius, a 1 km radius and a 500 m radius. Reported in columns (4)-(6) of Table 9, we find that the price discount remains significant, with the magnitude ranging from 13.0% to 19.3%.

## The Transparency of transactions and future employment

It is worth noting that we control for the methods of transaction in all the specifications above. Thus the above estimates are conservative estimates of favor received by firms which hired local officials later. As mentioned in Section 3, local officials can grant more favor to firms by choosing less transparent methods of transaction than English auctions, which leave smaller room for price discounts. Therefore we further examine whether the choice of transaction methods is affected by likelihood of relevant officials being hired into the firm's board later. We estimate models similar to Equation (3) with the outcome variable being an indicator to English auction. Columns (1) and (2) of Table 10 report respectively the results without and with the higher-dimension firm-by-year fixed effects. During non-auditing period the likelihood of transactions being conducted through English auction is 2.3 percentage points lower if the transaction is followed by the hiring of a local official into the land-purchasing firm's board for the same firm in the same year. And this effect completely disappears during the auditing period. This finding supports our conjecture that local officials extend favor to their prospective employers by choosing less transparent methods of transactions.

[Table 10 about here]

One alternative explanation is that the unit price tend to be lower for larger parcels of land. We examine whether the size of land parcels transacted before a firm's hiring of local officials from the transaction city differs from the size of other land parcels purchased by the same firm in the same year. Columns (3) and (4) in Table 10 report the estimates without and with the higher-dimensional firm-by-year fixed effects. Overall the land parcels transacted right before the hiring of a local official into the firm's board are marginally larger than those not followed by such hiring and it does not differ between the auditing and non-auditing periods. This result does not support the statement that firms purchasing larger land parcels receive more favorable prices.

Besides the price discounts, local officials may also grant favor to their prospective em-

employers at the extra-margin, namely, more land will be sold to the prospective employers. To test for this hypothesis, we compute the total area of land purchased by each firm in each city every year and examine whether the total area purchased depends on the firm's subsequent hiring of a local official from the pertinent city. Columns (5) and (6) of Table 10 present the estimation results without and with higher-dimension firm-by-year fixed effects. The results show that, during non-auditing periods, for each firm in a given year, the total area purchased from a particular city with subsequent hiring of a local official into the firm is 3% higher than areas purchased from cities without such hirings. Combined with results in columns (3) and (4) of Table 10, this result shows that local officials would sell more land but not necessarily larger parcels of land to their prospective employers.

### **Retirement age and favors to firms**

Who are more likely to become patrons for firms? If local officials exchange favors for after-office corporate employment opportunities, we would expect that officials have stronger incentives to engage in such exchanges as they approach the retirement age. Thus we further examine whether the transactions involving an official close to his/her retirement age are different from those involving no such officials. We first study the unit price of land. The result is reported in column (1) of Table 11. Other things being controlled for, the price of land parcels transacted through an official within three years prior to his/her retirement is approximately 12.5% lower than that of land parcels purchased by the same firms in the same year but not involving officials close to retirement. To account for the differences in land quality, we also examine the price ratio of the neighborhood price (within the 5-km radius of the parcel) to the price of the pertinent land parcel. The result, reported in column (2) of Table 11, shows that the neighborhood-own price ratio is approximately 24% higher if the transaction involved an official within 3 years prior to his/her retirement. Columns (3) and (4) of Table 11 show that transactions conducted involving officials close to retirement are 5.1% less likely to be conducted through the most transparent method, i.e. English

auction, and 7.7% more likely through the least transparent way, i.e. bilateral agreement. We also find that land sold by officials close to retirement are more likely to be of commercial usage, which typically implies higher profits for the purchasing firm (Column (4) of Table 11). Those findings consistently corroborate our hypothesis that officials grant favors to firms in exchange for the potential after-office benefits.

[Table 11 about here]

## 8 Robustness Checks

Concerns may still remain that our results may be confounded with unobservable, time-varying firm characteristics specific to a locality. For instance, a firm may have unobservable advantages in a certain locality, which facilitate the land transactions there and lead to a subsequent pay increase for the new directors. To address this concern, we examine board directors' compensation and shareholding based on previous transactions in the secondary market by applying a similar strategy as that employed in Sections 5 and 6.

Table 12 reports the results of directors' compensation and shareholding. As shown in columns (1)-(3) of Table 12, board directors' compensation is not affected by a firm's land purchases in the secondary market prior to their joining the board. Columns (4) and (5) show that a director, on average, holds more firm shares if she/he joined the board right after the firm's land purchase in the secondary market in her/his prefecture. However, this shareholding premium does not differ between the nonofficial directors and officials-turned directors, nor is it affected by whether the purchase occurred in the auditing period. Moreover, after controlling for the firm-year fixed effects, this premium disappears. The lack of correlation between directors' reward and previous land transactions in the secondary market further confirms our results in Sections 5 and 6 that such board directorship is used as a form of postponed rewards for corrupt officials.

[Table 12 about here]

Next we examine whether a firm enjoyed price discounts in the secondary market prior to

a local official's entry into the board. If the result in Section 6 is driven by some unobserved time-varying firm advantages in a certain locality, we would expect to see similar price discounts in the secondary market, even though the seller is not the local government. We re-estimate Equation (3) using the secondary market transactions. As shown in column (1) of Table 13, firms do not obtain price discounts for the secondary market transactions before a local official joins the board as a director, a finding that applies to transactions in both normal times and during the auditing period, after controlling for the measures of the existing board composition and firm-year fixed effects (columns (2) and (3) of Table 11). In columns (4)-(6) of Table 13, we further control for the neighborhood prices within a 5 km, 1 km, and 500 m radius, respectively, and we still do not find that firms that recruited local officials into the board are able to enjoy price discounts in the secondary market prior to recruitment.

[Table 13 about here]

## 9 Conclusion

In this paper, we study how listed firms use the revolving door to lure public officials into corruption deals which favor firms in the context of China's primary land market. We first show that firms condition the likelihood of recruiting former officials to the board of directors and the generosity of compensation on the favor that those officials provided to the firms while they are still in office. If an official has been involved in a firm's land purchase in the nonauditing period, this official is twice as likely to be recruited into the firm's board as a director, on which condition she/he enjoys a compensation that is 27.8% higher and holds 80% more firm shares compared to those without involvement in land purchases and those whose involvement in land purchases occurred in the auditing period. In response to such incentive schemes, officials tend to sell land to their prospective corporate employers by an approximately 17% price discount, especially when they are close to their retirement age. They are also found to sell more land and use less transparent methods of transactions to

their prospective employers. Those favorable treatments vanished if the transaction occurred in the auditing period, which explains why firms do not reward as much those officials turned directors who are involved in transactions in the auditing period.

Our paper provides direct evidence on the link between the source of private returns to political office and politician behavior, which helps us understand how politician behavior is shaped by different economic and political institutional arrangements. Our finding also has implications for the regulations regarding the politician-business revolving door. Regulations aimed at reducing corruption through the revolving door are usually centered on ridding the former politicians of their influence *after* they leave office. If, as our finding shows, corporate employment opportunity is used as a form of postponed reward for politicians' corrupt behavior displayed before they left office, and as long as the firms can commit to such a reward, then the effect of regulations on curbing corruption would be greatly compromised. The fight against corruption thus begs for more regulatory innovation.

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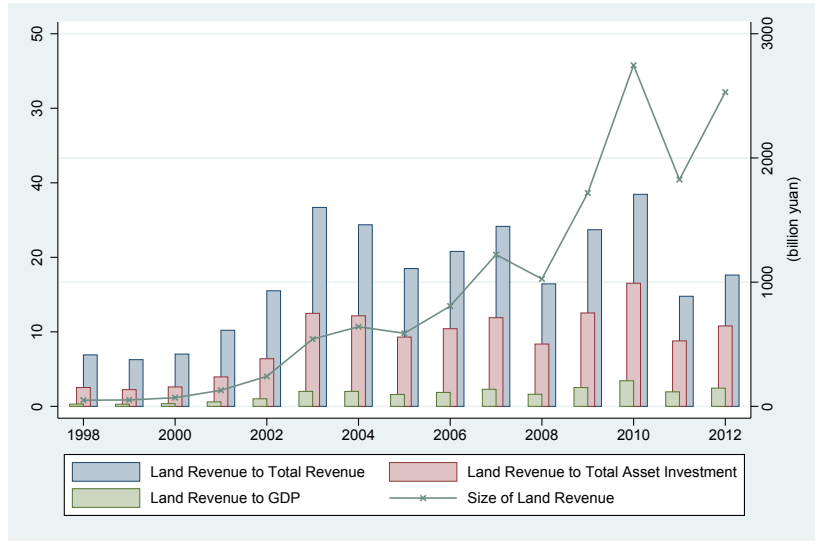


Figure 1. Percentage of Directors of China's Listed Firms Who are Retired Bureaucrats, by Sector

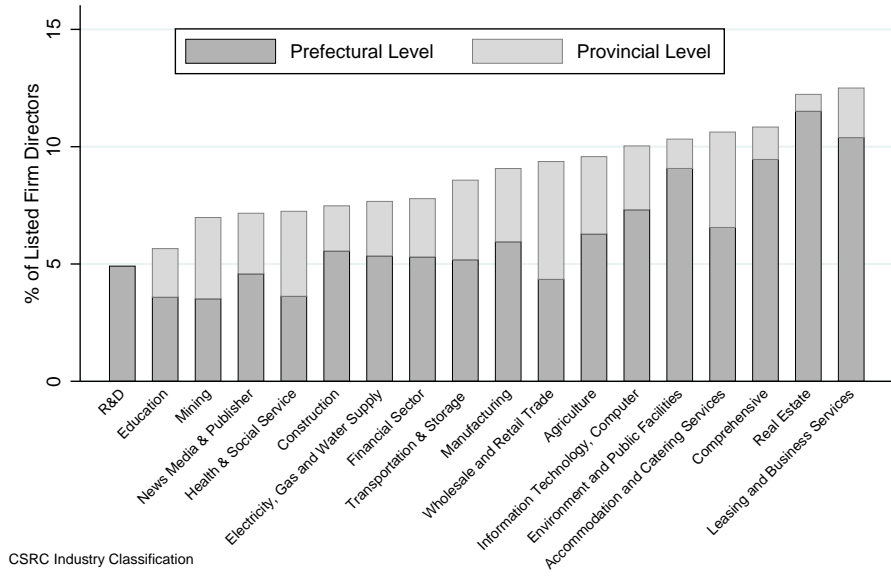


Figure 2. Geographic Distribution of Land Parcels Sold in Shanghai in 2010  
 —An Example of How to Construct the Market Value Measures

Table 1. Summary Statistics of Directors and Executives' Characteristics

	Politician=0		Politician=1	
	Previous land purchase =yes	Previous land purchase =no	Previous land purchase =yes	Previous land purchase =no
<b>Panel A: Board directors</b>	<b>N=150,080</b>	<b>N=2,712</b>	<b>N=11,639</b>	
Annual Compensation ( <i>guan</i> )	91.3% 162287.9 (415438)	1.6% 209207.1 (446812.2)	7.1% 114214.3 (282413.9)	
Year of Educations	17.734 (2.444)	17.564 (2.216)	17.639 (2.383)	
Age	48.226 (9.027)	55.121 (9.030)	53.174 (9.900)	
Male	88.14% (0.323)	92.04% (0.271)	91.03% (0.286)	
CPPCC Deputy	2.99% (0.170)	7.30% (0.260)	5.52% (0.228)	
NPC Deputy	2.39% (0.153)	5.46% (0.227)	5.09% (0.220)	
CCP Member	22.63% (0.418)	35.79% (0.479)	31.96% (0.466)	
Bank Connections	6.50% (0.247)	7.71% (0.267)	7.23% (0.259)	
Doubles as an Executive	12.84% (0.335)	9.66% (0.295)	6.51% (0.247)	
<b>Panel B: Executives</b>	<b>N=65,592</b>	<b>N=662</b>	<b>N=1,888</b>	
Annual Compensation ( <i>guan</i> )	96.2% 358596.9 (568994.3)	1.0% 520294.7 (480322.4)	2.8% 340617.5 (560175.4)	
Year of Educations	17.422 (2.194)	17.551 (2.168)	17.589 (2.288)	
Age	45.392 (7.064)	48.474 (7.930)	47.335 (7.806)	
Male	87.85% (0.327)	93.96% (0.238)	89.78% (0.303)	
CPPCC Deputy	0.99% (0.099)	5.59% (0.230)	3.92% (0.194)	
NPC Deputy	0.67% (0.081)	2.27% (0.149)	3.55% (0.185)	
Party Member	22.61% (0.418)	37.65% (0.485)	33.25% (0.471)	
Bank Connections	3.13% (0.174)	7.85% (0.269)	7.04% (0.256)	
Doubles as a Board Director	29.38% (0.456)	39.58% (0.489)	40.15% (0.490)	

Table 2. Land Price and Quality by Subsequent Director Recruitment

	Purchase Followed by Hiring of Local-official Directors =1	Difference =0
Average Land Price (logged)	5.690 (0.023)	5.944 (0.012) -0.254*** (0.027)
Average Vicinity Price Within 500m Radius (logged)	6.266 (0.022)	5.959 (0.011) 0.307*** (0.025)

Notes: Standard errors are reported in the brackets. Average vicinity price is the average price of land parcels purchased in the same year and in the vicinity within a 500-meter radius matched to the sample used in the first row.

Table 3. Land Price and Quality by Subsequent Director Recruitment, by Auditing/Nonauditing Period

	Purchase Followed by Hiring of Local-official Directors		Difference	
	=1	=0		
Audit = 0	Average Price (logged)	5.498 (0.023)	5.849 (0.012)	-0.351*** (0.028)
	Average Vicinity Price within 500m Radius (logged)	6.152 (0.023)	5.862 (0.012)	0.289*** (0.026)
Audit = 1	Average Price (logged)	6.625 (0.066)	6.472 (0.031)	0.153* (0.097)
	Average Vicinity Price within 500m Radius (logged)	6.824 (0.071)	6.496 (0.027)	0.328*** (0.061)

Notes: Standard errors are reported in the brackets. Average vicinity price is the average price of land parcels purchased in the same year and in the vicinity within a 500-meter radius matched to the sample used in the first row.

Table 4. Summary Statistics of Land and Firm Characteristics

Primary Land Market										
Variables	Full Sample (N=30871)		followed by hiring local officials (N=5479)		not followed by hiring local officials (N=26674)		followed by hiring nonlocal officials (N=20340)		not followed by hiring nonlocal officials (N=11813)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Panel A										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Land Price per $m^2$ (RMB)	1066.281	2168.499	816.2811	1592.19	1118.95	2267.854	931.6224	2132.24	1147.517	2186.13
Size of Area (hectare)	5.514	9.478	7.072	10.633	5.186	9.183	4.496	9.102	6.128	9.647
Size of Payment ( $10^5$ RMB)	5152.845	12891.770	5695.938	13037.730	5038.429	12858.140	4210.522	12194.050	5721.322	13262.960
Land Quality	12.552	6.470	12.413	6.544	12.581	6.454	12.647	6.464	12.495	6.472
Average District Land Price	987.447	1081.754	1061.672	1184.992	971.809	1058.083	793.078	951.164	1104.704	1137.480
<u>Transaction Methods</u>										
- By Agreement	32.31%		34.21%		31.91%		42.98%		25.87%	
- Listing Auction	59.78%		57.52%		60.26%		50.56%		65.35%	
- English Auction	5.60%		5.40%		5.64%		4.34%		6.36%	
- Invited Bidding	2.31%		2.87%		2.19%		2.12%		2.42%	
Average Price $\leq$ 5km Radius	978.825	1172.079	1010.360	1167.030	971.706	1173.127	843.965	1096.166	1056.244	1206.757
Average Price $\leq$ 1km Radius	975.103	1566.446	1094.856	1773.699	946.629	1511.659	825.771	1423.466	1060.823	1636.817
Average Price $\leq$ 500m Radius	908.330	1536.805	1055.682	1766.550	873.062	1474.408	755.809	1377.918	996.193	1614.812
Panel B										
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Firm Total Asset (log)	24.593	2.364	23.415	2.129	24.841	2.336	25.114	2.318	24.279	2.336
Firm Net Profits (log)	24.002	2.859	22.836	2.588	24.248	2.853	24.372	2.969	23.780	2.767
Number of Employee (log)	9.739	2.344	8.870	2.078	9.922	2.356	10.212	2.462	9.453	2.222
Firm State Share	0.192	0.277	0.204	0.268	0.189	0.278	0.301	0.322	0.125	0.220
Firm Foreign Share	0.007	0.047	0.009	0.055	0.007	0.046	0.006	0.040	0.008	0.051
CPPCC Members	0.022	0.038	0.019	0.035	0.023	0.039	0.028	0.047	0.019	0.032
NPC Deputy	0.018	0.034	0.023	0.042	0.017	0.032	0.017	0.031	0.018	0.036
Banking Connections	0.057	0.064	0.045	0.058	0.059	0.065	0.071	0.072	0.049	0.058
Headquarter or Registered Location	0.205	0.404	0.438	0.496	0.156	0.363	0.113	0.316	0.260	0.439

Table 5. Effect of Past Land Purchases on the Recruitment of Retired Local Officials

Outcome variable:	Hiring Local Officials = 1							Hiring Local Non-Officials = 1	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
$Purchase_{t-1}$ ( $\beta_1$ )	0.040*** (0.003)	0.034*** (0.003)	0.027*** (0.003)	0.032*** (0.004)			0.074*** (0.006)		
$Purchase_{t-2}$ ( $\beta_2$ )		0.027*** (0.004)	0.021*** (0.003)	0.026*** (0.004)			0.060*** (0.008)		
$Purchase_{t-3}$ ( $\beta_3$ )			0.018*** (0.004)	0.023*** (0.004)			0.031* (0.013)		
$Purchase_{t-1} * Audit_{t-1}$ ( $\gamma_1$ )				-0.017** (0.006)					
$Purchase_{t-2} * Audit_{t-2}$ ( $\gamma_2$ )				-0.018** (0.007)					
$Purchase_{t-3} * Audit_{t-3}$ ( $\gamma_3$ )				-0.021* (0.010)					
Purchase in Past 3 Years ( $\beta_4$ )					0.039*** (0.004)	0.046*** (0.004)		-0.063*** (0.004)	-0.066*** (0.005)
Purchase in Past 3 Years*Audit ( $\gamma_4$ )						-0.025*** (0.007)		0.010 (0.008)	
$Purchase_t$							0.079*** (0.005)		
$Purchase_{t+1}$							0.066*** (0.004)		
$Purchase_{t+2}$							0.047*** (0.004)		
$Purchase_{t+3}$							0.033*** (0.003)		
$\beta_1 + \beta_2 + \beta_3 + \gamma_1 + \gamma_2 + \gamma_3$				0.026 (0.018)					
$\beta_4 + \gamma_4$						0.021*** (0.007)			
Prefecture-Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Prefecture-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Observations	6863648	5994439	5199227	5199227	5199227	5199227	3330547	5199227	5199227
Adjusted R-squared	0.597	0.612	0.638	0.638	0.638	0.638	0.572	0.920	0.920

Notes: Standard errors in parentheses, clustered at the prefecture-firm level; \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.

Table 6. Directors' Annual Compensation and Past Land Purchase, 1999-2012

Outcome variable	Log of Annual Compensation					
	Board Directors			High-ranking Executives		
	(1)	(2)	(3)	(4)	(5)	(6)
Former Official	0.051** (0.019)	0.051** (0.019)	0.061** (0.019)	-0.026 (0.021)	-0.026 (0.021)	-0.030 (0.022)
Past Land Purchase	-0.010 (0.010)	-0.011 (0.010)	0.064 (0.049)	-0.004 (0.009)	-0.004 (0.009)	0.037 (0.053)
Past Land Purchase*Former Official ( $\rho_3$ )	0.141*** (0.031)	0.278*** (0.035)	0.254*** (0.046)	0.054 (0.028)	0.076* (0.034)	0.081 (0.057)
Past Land Purchase*Former Official*Audit ( $\rho_4$ )		-0.303*** (0.056)	-0.302*** (0.063)		-0.045 (0.040)	-0.043 (0.063)
Profit	0.009 (0.005)	0.009 (0.005)		0.038*** (0.006)	0.038*** (0.006)	
Years of Education	0.018*** (0.002)	0.018*** (0.002)	0.017*** (0.002)	0.001 (0.002)	0.001 (0.002)	0.001 (0.002)
Age	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001* (0.001)
Male	-0.092*** (0.015)	-0.092*** (0.015)	-0.094*** (0.015)	-0.036*** (0.010)	-0.035*** (0.010)	-0.032*** (0.010)
CPPCC Member	0.054 (0.029)	0.054 (0.029)	0.051 (0.029)	-0.040 (0.045)	-0.040 (0.045)	-0.009 (0.036)
NPC Deputy	0.133*** (0.029)	0.133*** (0.029)	0.132*** (0.030)	-0.003 (0.038)	-0.003 (0.038)	-0.001 (0.035)
Bank Connections	0.032 (0.023)	0.032 (0.023)	0.030 (0.024)	0.001 (0.023)	0.001 (0.023)	0.004 (0.023)
$\rho_3 + \rho_4$		-0.025 (0.049)	-0.047 (0.060)		0.031 (0.026)	0.038 (0.056)
Control Variables	Yes	Yes	Yes	Yes	Yes	No
Firm Fixed Effects	Yes	Yes	No	Yes	Yes	No
Year Fixed Effects	Yes	Yes	No	Yes	Yes	No
Firm-year Fixed Effects	No	No	Yes	No	No	Yes
Number of Observations	164431	164431	164431	68142	68142	68142
Adjusted R-squared	0.179	0.179	0.170	0.129	0.130	0.174

Notes: Control variables include concurrent posts, state share, foreign share, board share and firm size. Standard errors in parentheses, clustered at the firm level; \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.



Table 7. Directors' Annual Shareholding (Year End) and Past Land Purchase, 1999-2012

	Log of Annual Shareholding (Year End)					
	Board Directors			High-ranking Executives		
	(1)	(2)	(3)	(4)	(5)	(6)
Former Official	-0.176 (0.105)	-0.177 (0.105)	-0.190 (0.106)	0.477* (0.215)	0.477* (0.215)	0.530* (0.219)
Past Land Purchase	0.030 (0.044)	0.028 (0.044)	0.251 (0.288)	0.108 (0.078)	0.108 (0.078)	0.451 (0.320)
Past Land Purchase*Former Official ( $\beta_1$ )	0.504** (0.177)	0.800** (0.246)	0.936*** (0.246)	0.229 (0.216)	0.190 (0.251)	0.126 (0.284)
Past Land Purchase*Former Official*Audit ( $\beta_2$ )		-0.652* (0.283)	-0.685* (0.306)		0.076 (0.308)	0.158 (0.366)
$\beta_1 + \beta_2$		0.148 (0.199)	0.251 (0.264)		0.267 (0.278)	0.283 (0.324)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	No	Yes	Yes	No
Year Fixed Effects	Yes	Yes	No	Yes	Yes	No
Firm-Year Fixed Effects	No	No	Yes	No	No	Yes
Number of Observations	201858	201858	201858	86292	86292	86292
Adjusted R-squared	0.292	0.292	0.286	0.494	0.494	0.521

Notes: Control variables include years of education, age, gender (male=1), CPPCC member, NPC deputy, bank connections, concurrent posts, state share, foreign share, board share and firm size. Standard errors in parentheses, clustered at the firm level; \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.

Table 8. Directors' Annual Compensation, Annual Shareholding (Year End) and Future Land Purchase, 1999-2012

	Board Directors			
	Log of Annual Compensation (1)	Log of Annual Compensation (2)	Log of Annual Shareholding (Year End) (3)	Log of Annual Shareholding (Year End) (4)
Former Official	0.081*** (0.022)	0.079*** (0.022)	-0.101 (0.121)	-0.104 (0.121)
Past Land Purchase	0.027 (0.051)	0.032 (0.052)	0.069 (0.303)	0.077 (0.302)
Past Land Purchase*Former Official	0.163*** (0.046)	0.291*** (0.050)	0.865*** (0.222)	1.147*** (0.260)
Past Land Purchase*Former Official*Audit		-0.296*** (0.063)		-0.649* (0.307)
<i>LandPurchase<sub>t</sub></i> *Former Official	-0.081** (0.029)	-0.075** (0.029)	-0.382** (0.137)	-0.368** (0.137)
<i>LandPurchase<sub>t+1</sub></i> *Former Official	-0.030 (0.021)	-0.022 (0.020)	-0.160 (0.093)	-0.143 (0.092)
<i>LandPurchase<sub>t+2</sub></i> *Former Official	0.021 (0.020)	0.021 (0.020)	-0.046 (0.089)	-0.047 (0.089)
<i>LandPurchase<sub>t+3</sub></i> *Former Official	-0.004 (0.023)	-0.010 (0.023)	0.071 (0.120)	0.060 (0.121)
Control Variables	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	No	No
Year Fixed Effects	Yes	Yes	No	No
Firm-Year Fixed Effects	No	No	Yes	Yes
Number of Observations	164431	164431	201858	201858
Adjusted R-squared	0.169	0.170	0.286	0.286

Notes: Control variables include years of education, age, gender (male=1), CPPCC member, NPC deputy, bank connections, concurrent posts, state share, foreign share, board share and firm size. Standard errors in parentheses, clustered at the firm level; \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.

Table 9. Revolving Door, Land Auditing and Prior Land Transaction Price

	(1)	(2)	(3)	(4)	(5)	(6)
	Log of Land Price (yuan/square meter)					
Pre-Hiring Local Official	-0.144** (0.052)	-0.175*** (0.051)	-0.238*** (0.057)	-0.210*** (0.056)	-0.206*** (0.046)	-0.166*** (0.045)
Pre-Hiring Local Non-Official	0.024 (0.037)	0.031 (0.038)	0.002 (0.054)	0.018 (0.054)	0.059 (0.059)	0.048 (0.064)
Pre-Hiring Non-Local Official	-0.025 (0.031)	-0.040 (0.034)	-0.048 (0.085)	0.011 (0.082)	0.052 (0.090)	0.105 (0.084)
Audit		0.099 (0.051)	0.109* (0.043)	0.104* (0.048)	0.145** (0.053)	0.133* (0.055)
Pre-Hiring Local Official*Audit		0.411*** (0.108)	0.380** (0.134)	0.429** (0.143)	0.467*** (0.134)	0.438** (0.143)
Pre-Hiring Local Non-Official*Audit		-0.039 (0.096)	-0.052 (0.130)	-0.030 (0.128)	-0.041 (0.137)	0.004 (0.165)
Pre-Hiring Non-Local Official*Audit		0.076 (0.054)	0.022 (0.066)	-0.028 (0.070)	-0.071 (0.081)	-0.111 (0.083)
General Political Connections	-0.033 (0.034)	-0.028 (0.034)				
Local Experience	-0.018 (0.040)	-0.016 (0.039)	-0.028 (0.049)	-0.030 (0.057)	0.012 (0.067)	-0.000 (0.070)
Locality-specific Political Connections	-0.179** (0.056)	-0.213*** (0.057)	-0.182* (0.077)	-0.189* (0.089)	-0.271*** (0.078)	-0.284*** (0.082)
Average Price within 5 km Radius				0.286*** (0.016)		
Average Price within 1 km Radius					0.264*** (0.019)	
Average Price within 500 m Radius						0.264*** (0.019)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Land Usage Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
City Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	No	No	No	No
Firm Fixed Effects	Yes	Yes	No	No	No	No
Firm*Year Fixed Effects	No	No	Yes	Yes	Yes	Yes
Number of Observations	30871	30871	30871	25791	20552	18470
Adjusted R-squared	0.697	0.699	0.734	0.720	0.732	0.738

Notes: Control variables include dummy of registration or headquarter city, area of land (log), transaction method, land quality, average land price within the district, firm total asset (log), logged firm net profit, number of employees (log), state share and foreign share. Standard errors in parentheses, clustered at the prefecture level; \* p<0.05, \*\* p<0.01, \*\*\* p<0.001; constant terms are not reported.

Table 10. Revolving Door, Land Auditing and Quantity and Methods of Land Transactions

	Transaction Level			Firm-Prefecture Panel Level		
	(1)	(2)	(3)	(4)	(5)	(6)
	English Auction	Land Area (square meter, log)	Total Land Area			
Hiring Local Official in Future 3 Years (LO)	-0.020* (0.008)	-0.023+ (0.013)	0.066 (0.054)	0.100+ (0.057)	0.031*** (0.003)	0.032*** (0.003)
Hiring Local Non-official in Future 3 Years (L-NO)	-0.012 (0.009)	-0.037* (0.017)	0.084 (0.067)	0.182* (0.078)	-0.001 (0.001)	-0.001 (0.001)
Hiring Non-local Official in Future 3 Years (NL-O)	-0.013 (0.008)	-0.015 (0.018)	0.044 (0.062)	0.036 (0.100)	-0.000 (0.000)	-0.002 (0.003)
Audit Period	-0.006 (0.013)	-0.026+ (0.015)	-0.111+ (0.065)	-0.096 (0.062)	-0.001* (0.000)	-0.001* (0.000)
LO*Audit Period	0.022 (0.026)	0.096* (0.041)	0.084 (0.155)	-0.053 (0.179)	-0.075*** (0.006)	-0.076*** (0.006)
L-NO*Audit Period	0.020 (0.027)	0.012 (0.036)	-0.146 (0.175)	-0.341+ (0.197)	-0.002 (0.003)	-0.002 (0.003)
NL-O*Audit Period	0.005 (0.025)	0.027 (0.022)	-0.088 (0.102)	-0.055 (0.099)	0.001* (0.000)	0.001+ (0.000)
General Political Connections ({jt})	-0.002 (0.012)		-0.015 (0.050)		-0.000 (0.000)	
Local Experience ({cjt})	-0.014 (0.016)	-0.024 (0.022)	-0.062 (0.101)	-0.011 (0.142)	2.957*** (0.076)	2.950*** (0.076)
Locality-specific Political Connections ({cjt})	0.009 (0.020)	-0.039 (0.031)	-0.093 (0.103)	-0.206+ (0.122)	0.014*** (0.003)	0.015*** (0.003)
Firm-Prefecture Fixed Effects	YES	YES	YES	YES	YES	YES
Firm-Year Fixed Effects	No	YES	No	YES	No	YES
Year Fixed Effect	YES	No	YES	No	YES	No
Other Controls	No	No	YES	YES	YES	YES
Land Usage Fixed Effects	No	No	YES	YES	YES	YES
Clustered at Prefecture Level	YES	YES	YES	YES	YES	YES
Observations	30871	30871	30871	30871	4822518	4822518
Adjusted R-squared	0.456	0.469	0.788	0.798	0.458	0.458

Notes: Control variables include dummy of registration or headquarter city, area of land (log), but only in columns (5)-(6); land quality, average district land price, firm total asset (log), logged firm net profit, number of employees (log), state share and foreign share. Standard errors in parentheses; \* p<0.01, \*\* p<0.05, \*\*\* p<0.001; constant terms are not reported.

Table 11. Revolving Door, Land Auditing and Quantity and Methods of Land Transactions

	Land Price (yuan/square meter, log)	Price Gap (2)	English Auction (=1) (3)	Bilateral Agreement (=1) (4)	Commercial-residential Usage (=1) (5)
1-3 years before retirement	-0.206*** (0.050)	0.351*** (0.067)	-0.054** (0.021)	0.077*** (0.019)	0.103** (0.032)
Locality-specific Political Connections	-0.280+ (0.156)	0.127 (0.205)	-0.034 (0.032)	-0.008 (0.050)	0.042 (0.046)
Local Experience	0.103 (0.148)	0.147 (0.193)	-0.031 (0.022)	-0.036 (0.040)	-0.020 (0.041)
Firm-Prefecture Fixed Effects	YES	YES	YES	YES	YES
Firm-Year Fixed Effects	YES	YES	YES	YES	YES
Other Controls	YES	YES	YES	YES	YES
Land Usage Fixed Effects	YES	YES	YES	YES	NO
Clustered at Prefecture Level	YES	YES	YES	YES	YES
Observations	30871	25791	30871	30871	30871
Adjusted R-squared	0.782	0.472	0.470	0.673	0.687

Notes: Control variables include dummy of registration or headquarter city, area of land (log, not in column (2)), land quality, average district land price. Standard errors in parentheses; \* p<0.01, \*\* p<0.05, \*\*\* p<0.001; constant terms are not reported.

Table 12. Directors' Annual Compensation, Annual Shareholding (Year End) and Past Land Purchase, Secondary Market 1999-2012

	Board Directors					
	Log of Annual Compensation			Log of Annual Shareholding (Year End)		
	(1)	(2)	(3)	(4)	(5)	(6)
Former Official	0.072*** (0.018)	0.072*** (0.018)	0.085*** (0.019)	-0.085 (0.104)	-0.085 (0.104)	-0.069 (0.105)
Past Land Purchase	0.024 (0.024)	0.024 (0.024)	0.170 (0.117)	0.383** (0.139)	0.382** (0.139)	0.508 (0.526)
Past Land Purchase*Former Official	-0.054 (0.058)	-0.052 (0.059)	0.077 (0.108)	-0.204 (0.296)	-0.210 (0.301)	0.570 (0.924)
Past Land Purchase*Former Official*Audit		-0.023 (0.097)	0.000 (0.088)		0.062 (0.331)	0.021 (0.345)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm Fixed Effects	Yes	Yes	No	Yes	Yes	No
Year Fixed Effects	Yes	Yes	No	Yes	Yes	No
Firm-Year Fixed Effects	No	No	Yes	No	No	Yes
Number of Observations	166879	166879	166879	209739	209739	209739
Adjusted R-squared	0.178	0.178	0.170	0.294	0.294	0.293

Notes: Notes: Control variables include years of education, age, gender (male=1), CPPCC member, NPC deputy, bank connections, concurrent posts, state share, foreign share, board share and firm size. Standard errors in parentheses, clustered at the firm level; \* p<0.05, \*\* p<0.01, \*\*\* p<0.001.

Table 13. Revolving Door, Land Auditing and Prior Land Transaction Price in Secondary Market

	Log of Land Price (yuan/square meter)					
	(1)	(2)	(3)	(4)	(5)	(6)
Pre-Hiring Local Official	0.022 (0.354)	0.021 (0.370)	0.141 (0.216)	-0.128 (0.236)	-0.181 (0.199)	-0.128 (0.236)
Pre-Hiring Local Non-Official	-0.012 (0.206)	-0.003 (0.204)	0.146 (0.220)	0.131 (0.154)	0.062 (0.174)	0.131 (0.154)
Pre-Hiring Non-Local Official	0.060 (0.147)	0.064 (0.164)	-0.094 (0.199)	0.565*** (0.108)	0.549*** (0.135)	0.565*** (0.108)
Audit		-0.097 (0.318)	-0.072 (0.317)	0.313 (0.231)	0.220 (0.318)	0.313 (0.231)
Pre-Hiring Local Official*Audit		0.091 (0.587)	-0.030 (0.585)	-0.348 (0.777)	0.397 (0.496)	-0.348 (0.777)
Pre-Hiring Local Non-Official*Audit		-0.179 (0.562)	0.185 (1.961)	-0.585 (1.047)	-0.582 (1.302)	-0.585 (1.047)
Pre-Hiring Non-Local Official*Audit		-0.124 (0.312)	-0.298 (0.386)	-0.643* (0.290)	-0.514 (0.389)	-0.643* (0.290)
General Political Connections	-0.142 (0.169)	-0.137 (0.171)				
Local Experience	-0.259 (0.235)	-0.261 (0.236)				
Locality-specific Political Connections	0.040 (0.383)	0.029 (0.380)				
Average Price within 5 km Radius				0.712*** (0.063)		
Average Price within 1 km Radius					0.605*** (0.074)	
Average Price within 500 m Radius						0.712*** (0.063)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Land Usage Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
City Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	No	No	No	No
Firm Fixed Effects	Yes	Yes	No	No	No	No
Firm*Year Fixed Effects	No	No	Yes	Yes	Yes	Yes
Number of Observations	3694	3694	3694	3694	3694	3694
Adjusted R-squared	0.618	0.618	0.505	0.669	0.607	0.669

Notes: Control variables include dummy of registration or headquarter city, area of land (log), land quality, firm total asset (log), logged firm net profit, number of employees (log), state share and foreign share. Standard errors in parentheses, clustered at the prefecture level; \* p<0.05, \*\* p<0.01, \*\*\* p<0.001; constant terms are not reported.