The Organization of Corruption:
Political Horizons and Industrial Interests[*]

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Abstract

We study how corruption that occurs between the State and the private sector is organized. By exploiting differences in the political and industrial organization across states in Mexico, we explore how party permanency and industry structure determine the extent of corruption. Using micro-level data on extra-official payments made by firms, we find that the political clout exerted on a state government affects corruption in a non-linear manner. Specifically, corruption is more intense under high and low levels of politician and party permanency, and less intense under intermediate levels. Moreover, we find that those firms that accrue more rents in their industries are also those willing to pay more in bribes, except when political permanency seems unlikely. We relate these findings to a combination of *horizon* and *capture* effects. In the first, politicians have incentives to prey more intensively on firms as their window of opportunity shortens, and thus command larger corruption payments. In the second, entrepreneurs have incentives to bribe government officials over long and "feasible" policy horizons, and thus increase their corruption offerings. Finally, we find evidence of a *rent* effect, whereby firms enjoying substantial rents are also those more likely to corrupt officials in exchange for economic shelter.

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1   Introduction

On March 4th, 2004, the leader of Mexico City's legislative assembly, while being interviewed live by a news presenter, commented on a recent scandal that involved Mexico City's finance minister. The minister had been caught on camera, a few days before, at a black jack table in Las Vegas, placing bets that greatly exceeded his bureaucrat salary. As the congressman vehemently announced on prime time TV that the government of Mexico City would not tolerate such misbehavior and demanded exemplary punishment for his former coworker, the presenter proceeded to air another video. In this one, the congressman saw himself receiving wads of bills in the amount of $45,000 from a businessman, and stashing them in his briefcase. The money he could not get in, he stuffed in his jacket pockets. These events were part of a series of video scandals involving entrepreneurs and high public officials that captured the attention of the Mexican press for a good number of months in 2004. These videos exhibited the depth and scope of corruption between politicians and entrepreneurs in Mexico.[1]

Certainly political corruption is not new. It is both pervasive and significant in developed and developing countries alike. From campaign contributions to kickbacks in the allocation of government contracts, political corruption stretches from medium to high levels of government, penetrating the entire political structure of nations. Yet few studies have focused on political corruption and its organization in a formal way. In fact, the empirical literature on the topic remains silent on the political roots of corruption. In this paper we attempt to fill in this gap by studying how corruption responds to the political organization of government and the incentives of the private sector.

We first outline a theory of how political horizons shape politicians and entrepreneurs' incentives, thereby affecting the supply and demand for corruption. We assume that self-interested politicians are partly motivated by private benefits from their supplying of public goods to firms, which allow corruption opportunities to flourish. On the other hand, we postulate that rent-seeking entrepreneurs demand these corruption opportunities to shield themselves from competition. These two incentives, however, interact with different strengths depending on the feasibility of a policy horizon. We envision a market of public officials, through which politicians' expected permanency is shaped by political contestability, government hierarchies, or institutional constraints. If a politician's horizon is short, he should have more incentives to prey on firms, than if his horizon is long.

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[1]In the last four years alone there have been four major corruption scandals in Mexico, two of them involving dealings between high public officials and the private sector. The first concerned a large campaign contribution from the Mexican state owned oil company, PEMEX, to the party then in power, the PRI. The second scandal involved the head of the Green Party and a group of businessmen, agreeing on video on a deal involving an ecological reserve. The third involved Mexico City's finance secretary and his 17 trips to Las Vegas in 2003. The fourth is our introductory case, which involved a Mexico City congressman accepting cash from a businessman who subsequently was jailed for a construction fraud to the government of Mexico City. Two other Mexico City government officials were shown on video accepting bribes from the same businessman.

The reason being that shorter horizons increase politicians' opportunism by reducing their chances of taking advantage of their rank or misusing their office.

Conversely, in the product-market, entrepreneurs strive to secure the rents they enjoy in their respective industries. Depending upon the industrial structure, a firm may or may not amass rents. A firm benefiting from extraordinary rents has more incentives to seek government protection to preserve the status quo, ceteris paribus. This protection can take the form of contracts, licenses, favorable legislation/regulation, tariffs, subsidies, or other shelter from competition. Nonetheless, entrepreneurs face uncertainty about the feasible policy horizon of politicians. Shorter horizons decrease entrepreneurs' return on corruption investments, thus discouraging bribes to politicians. This implies that when permanency is low or unlikely, corruption is determined by the relative bargaining power of politicians vis-à-vis entrepreneurs.

We take this theory to the data. By exploiting within-country variation in political and industrial organization, as measured by party permanency and industry concentration, we assess corruption between the State and the private sector. We uncover a non-linear effect on corruption: high graft for high and low levels of party permanency, and low graft for intermediate permanency. We observe this effect for higher-level political corruption, but not for bureaucratic or administrative graft. We also find evidence of a "*rent*" effect: firms that accrue higher rents are likely to pay more bribes to politicians, but are reluctant to do so when the expected party permanency is too low. Our results also corroborate previous findings in the literature: firms that are younger, more profitable, and with closer ties to the government pay more in corruption. This paper also lends empirical support to a series of theories on the organization of corruption and its relationship with political stability (Olson 1993, Shleifer and Vishny 1993, Olson 2000, Campante, Chor and Do 2005).

The empirical literature on the causes of corruption has found several interesting differences across countries.[2] Corruption seems to be higher in countries that are sheltered from foreign competition (Ades and Di Tella 1999), countries with less economic freedom (Graeff and Mehlkop 2003), countries with lower freedom of the press (Brunetti and Weder 2003), countries that share a civil law origin and are more ethnolinguistically fractioned (Treisman 2000), countries that are more decentralized (Fisman and Gatti 2002a, Fisman and Gatti 2002b), and countries with fewer political rights or that are ex-communist regimes (Treisman 2000). Swamy, Knack, Lee and Azfar (2001) and Dollar, Fisman and Gatti (2001) find that corruption is lower in countries where women have more active roles in the economy and in government. Corruption also seems to decline with economic development, since the latter reflects improvements in education, literacy, and depersonalized ('arm's-length') relationships (Treisman 2000, Tanzi 1998).

Despite the burgeoning interest in exploring and quantifying the causes and consequences of corruption, efforts have consistently met with an obstacle: lack of detailed micro data on corruption, which by its very nature is secretive and difficult to measure. As a result, almost all of the previous studies share two fundamental features. First, they focus on cross-country variation in

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[2]Lambsdorff (1999) provides a comprehensive review of the empirical literature on the causes and consequences of corruption.

corruption. Second, the metrics used are mostly subjective aggregates: perceived levels of corruption based on surveys conducted by NGOs and risk analysts.[3] One problem that arises with country-level analyses is the difficulty in isolating the effect of nation-specific characteristics, such as institutions.[4] Similarly, the use of subjective aggregates involves confounding factors affecting corruption that obscure its true determinants. Only a handful of studies have relied on micro-level data. Svensson (2003) uses data on 176 Ugandan firms to explain the extent of bribes as a function of regulation and firm bargaining power. Olken (2004) estimates corruption in Indonesia by having engineers independently estimate the value of inputs used in road constructions. Reinikka and Svensson (2004a) and Reinikka and Svensson (2004b) expose corruption through school grants in Uganda, using public expenditure tracking surveys. Finally, McMillan and Zoido (2004) document Montesinos' trail of corruption in Peru by examining his bribe records and extortion contracts.

Our first contribution is to extend this scant literature by using a large micro-level dataset of bribes paid by firms. The data come from a proprietary cross-section survey of nearly 4,000 firms located throughout Mexico. We focus on one type of corruption: political graft, defined as a politician's acquisition of gain (money) in dishonest or questionable ways. To the best of our knowledge, no previous study has used such a large dataset. Our second and most important contribution is to fill a gap in the corruption literature by focusing on the political and industrial determinants of corruption. In particular, we study the organization of corruption between politicians and entrepreneurs.

The rest of the paper is organized as follows. Section 2 describes the historical connection between politicians and entrepreneurs and their link to corruption. Section 3 develops a simple theoretical framework to think of corruption in terms of political and industrial factors. Several predictions are outlined. Section 4 describes in detail our data set and Section 5 presents the results of our empirical analysis. Section 6 concludes.

2 Politicians and Entrepreneurs in Mexico

"No general can resist a barrage of 50,000 pesos."
— *President Alvaro Obregón (1920-1924)*

In the last two decades Mexico has evolved from being an highly centralized political regime to becoming a hybrid democracy, with scattered regions displaying intense political contestability and some others remaining strongholds of the once "official" party. From 1929 and until 1988, the Institutional Revolutionary Party (PRI) won every single presidential election, all but one seat in the senate, the totality of governorships, and held huge majorities in Congress and state legislatures.[5]

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[3]For example, Transparency International and ICRG.

[4]Bardhan (1997) notes: "A particular African country may be in some sense more corrupt than a particular East Asian country, even though the actual amount of bribe money exchanging hands may be much larger in the latter; this may be simply because rampant corruption may have choked off large parts of economic transactions in the former."

[5]In the 1960s, the Partido Popular Socialista unofficially won a gubernatorial election in the state of Nayarit. The election involved the leader of that party, Carlos Cruikshank, who "exchanged" his gubernatorial victory for a seat in the Senate. We thank Alberto Díaz-Cayeros for pointing this out.

Mexico then began to experience deep political transformation. In 1988, opposition parties, for the first time, entered the senate. Then, in 1989, an opposition party won a state governorship for the first time. In 2000, the National Action Party (PAN) won the presidency, ending 71 years of a "one-party" regime. By 2003, a three-party system had emerged at the national level. The right-wing PAN held the presidency, 30 percent of the seats in Congress, and 10 governorships. The center-right PRI held 45 percent of Congress and 18 governorships. Finally, the left-wing Democratic Revolution Party (PRD) held 20 percent of Congress plus 4 governorships.

Despite this intense political transformation at the national level, the development of political competition in Mexico has been geographically uneven. Alternance has come about in only half of the 32 Mexican states. In the other half, the PRI remains deeply entrenched and in control of government. The same is true for the state legislatures and municipalities in those deeply-rooted PRI states. Close to 20 percent of the 2,443 municipalities in the country have not experienced party turnover since 1929. At the state level, a similar pattern exists. While some states display significant plurality, with the incumbent party holding only 13 percent of the seats in the state legislature, some others remain highly controlled by the state executive, with the hold of as much as 67 percent of the local legislature seats.[6]

In these parts of the country, where contestability is nonexistent, constituencies resemble more feudal monarchies than states of a federal republic. In these places, governors act like mini-presidents of their states, without effective oversight (Díaz-Cayeros 1997). During the PRI era, when political competition occurred almost exclusively inside the party, nominated state governors invariably won their governorships in uncontested elections. Basically, obtaining party nomination amounted to winning the election. The decisions on nominations came from the president, resulting from a process of political haggling at the national level rather than as a function of the popular support of aspiring candidates. This implied that governors had frequently little say in the nomination of their successor and, by the time their six-year term concluded, a new president with a new agenda usually nominated political allies of his own to replace them. Consequently, state governors were constrained in terms of extending their political influence beyond their terms in office.[7] In fact, as Díaz-Cayeros and Langston (2004) note, "[most] politicians who reached the state executive retired from politics because the governorship marked the pinnacle of their careers. They retired engaging in profitable business ventures which often originated from their time as governors, and would frequently include businesses dependent on public contracts." Thus mutually beneficial relationships developed between governors and entrepreneurs during office terms. To governors, these provided career advancement outside of government. To entrepreneurs, these constituted important channels to influence local policy in their favor.

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[6]It is important to note that electoral contestability and political contestability are not complex equivalents. Mexico experienced periods of high political contestability during the 71 years that the PRI remained uninterruptedly in power. Significant political contests took place, especially during presidential successions, but all of them inside the PRI. On the other hand, party turnover can occur without political interests being necessarily contested as, some argue, is the case of the United States. Although we label this emergence of party turnover political contestability, we understand that the term refers to a much broader concept. We feel, however, that the difference between party and political contestability has shrunk in Mexico since the elections in 2000. Politics are since carried out increasingly through parties, which historically had not been the case for Mexico.

[7]One could even say that state governors' horizons were exogenously determined in advance; they were fixed and binding.

Industrial Protection and Corruption

Between the 1940s and the 1980s, Mexico followed a number of protectionist policies, including the partial closing of its borders to foreign investment, trade, and competition. The resilient heritage of this epoch remains today. State bureaucracies enjoy vast powers and the discretion to protect private interests. During the industrial protection era, firms became accustomed to maximizing rents in an environment that largely protected them from outside competition. This industrial scheme conformed to the incentives of the PRI for maintaining its political hegemony. To achieve this purpose, the government rewarded the private sector through public policy. Through massive market intervention the PRI created control, privilege, and dependence. Public policies such tariffs, permits, licenses, subsidies, and barriers to foreign competition, among others, implied that producers needed to court the central government in order to enlarge their market share or sometimes even operate (Weingast 2003).

Alternatively, the state has the ability not only to reward with protection from competition, but also to punish through excessive regulation, which enables extortion. Excessive regulation has been an important source of extortion of the private sector by the State. Prior to 1990, regulations in the transportation industry prohibited two-way merchandise transport—entrepreneurs could only transport from place of origin to destination, but not the other way around. This was known as "regreso vacío" or, empty return cargo. If a firm did not want to make a return trip with an empty truck, it had to bribe bureaucrats. Similarly, the passenger transportation industry amounted to a regulated oligopoly, with only five firms controlling 85 percent of the market.[8] Regulations required the authorization of the State to create a new firm in this industry. The last authorization, prior to deregulation, was issued in 1962. The end result was that new entrepreneurs were forced to become "affiliated" to existing ones, and only after paying a $10,000 sign up fee. Also, until 1990, the government controlled concessions for producing and selling of matches, and only two firms ran 80 percent of the market. Customs offices is another example, where licenses were last issued in the 1960s. As a final illustration, in order to establish a fishing cooperative, 16 bureaucratic steps needed to be fulfilled with 7 different ministries. The bureaucratic hurdles lasted between three and five years.[9]

For the above reasons, Mexico is a prime candidate for the study of the political and industrial determinants of corruption.[10] Moreover, results can be generalized to other developing countries. As widespread as corruption may look from the above descriptions, Mexico is by no means an outlier. According to World Bank estimates, Mexico lies near the median of developing countries

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[8]Salinas de Gortari (2000) provides anecdotal evidence on 15 groups or "family clans," that controlled the special transportation permits before deregulation in the 1990s. These permits earned these "families" annual profits of 37 percent of revenues or, over $450 million. It is estimated that each one of these groups obtained around $30 million in rents per year, in addition to the normal business profits.

[9]The size and influence of the Mexican government is cast in stone by way of article 25 of the Constitution stating: "National development pertains to the State in order to guaranty that it is integral, strengthens national sovereignty, and its democratic regime... The State will plan, conduct, coordinate and orient national economic activity, and will be in charge of the regulation and promotion of the activities demanded by the general interest." The Mexican State is, therefore, present in every economic transaction.

[10]An additional historical reason why Mexico is a good candidate for this study is the long tradition, shared with all Spanish Imperial jurisdictions during colonial times, of the selling and renting of public office, especially lower offices, due to lack of public resources and enforcement mechanisms.

in terms of quality of governance, political stability, and corruption control. Similarly, Mexico has consistently ranked near the median of the Transparency International Corruption Perceptions Index since 2000. In 2002, the year we use for our empirical analysis, Mexico scored 3.6 out of 10, while the median index for 102 countries in the sample was 3.8. Next we frame our discussion in terms of the organization of corruption.

3   Theoretical Framework

Our theoretical framework is based on a simple demand and supply analysis of corruption. We concentrate on graft in public-private dealings, and ignore considerations about other forms of corruption, such as embezzlement. We formalize this analysis below. We are not the first ones to approach corruption from a demand and supply perspective. In fact, our analytical framework draws in part from the pioneering work of Campante et al. (2005), but we outline important distinguishing characteristics of our model. Shleifer and Vishny (1993) also analyze corruption in the context of demand and supply of a public good. They suggest that competition between buyers and sellers for such public goods induces the spread of corruption.

To analyze corruption, first consider an [inverse] upward sloping supply curve for corruption prospects, $\mathbf{S}(c)$, driven mostly by politicians, government officials, or agencies (i.e., the State, in general). Next, consider a [inverse] downward sloping demand curve for corruption opportunities, $\mathbf{D}(c)$, driven mostly by entrepreneurs, firms, or private agents (i.e., the private sector, in general).[11] Hence,

$$\begin{aligned} \mathbf{S}(c) &= \gamma + \delta c \\ \mathbf{D}(c) &= \alpha - \beta c \end{aligned}$$

where c is the price of corruption and $\alpha, \beta, \gamma, \delta > 0$ are parameters. The interaction of demand and supply act to set the equilibrium quantity and price of corruption. By equating demand and supply of corruption, we obtain the equilibrium quantity of corruption:

$$\begin{aligned} \mathbf{S}(c^*) &= \gamma + \delta \left[\frac{\alpha - \gamma}{\beta + \delta} \right] \\ \mathbf{D}(c^*) &= \alpha - \beta \left[\frac{\alpha - \gamma}{\beta + \delta} \right] \end{aligned}$$

It is easy to see how parameters γ and α shift the supply and demand curves of corruption, and thus determine its equilibrium levels.[12] The first set of determinants (of γ) are related to the market structure where government agents operate (Shleifer and Vishny 1993, Fredriksson and Svensson 2003, Campante et al. 2005), while the second set of determinants (of α) are related to

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[11] Alternatively, demand for corruption could also be driven by the citizenry, as petty bribes to bureaucrats. We neglect here the analysis of this type of corruption.

[12] For the moment we will ignore parameters β and δ, which determine the propensities or slopes of the demand and supply curves of corruption, respectively. These parameters are, in theory, related to constraints on the preferences of the agents that set demand and supply.

the market structure where firms operate (Ades and Di Tella 1999, Laffont and N'Guessan 1999). We first posit that the key determinant of γ affecting corruption opportunities is the expected permanency of public officials or, their political horizon. Permanency, in turn, derives from the political organization where government agents operate. In this paper we do not motivate political organization, but we view it as the features from the constitutional design, the polities and their geographies, the hierarchical arrangement across distinct levels of government and, the prevailing political stability (or contestability) across different constituencies.[13] In this sense, permanency directly affects politicians incentives to extort. Increased political competition, for instance, translates to a politician into a lower likelihood of remaining in power. Given this shortfall in expected permanency, his incentives to expropriate rents from firms are stronger (Olson 1993, Olson 2000). By limiting the window of opportunity a politician has, political competition effectively induces him to shift the supply of corruption opportunities outwards—perhaps by offering public goods of interest to firms in exchange for bribes. Here we place a particular emphasis on the institutionally defined terms of office for publicly elected officials, since this is the closest approximation to the permanency or *horizon* concept we want to convey.

On the demand-side, we conjecture that the determinants of α are related to the industrial structure where firms operate. This can be illustrated with the case of a firm that enjoys monopoly rents in a given industry. Clearly the possibility of entry of a new firm threatens these rents and induces the monopoly firm to seek protection in advance from authorities or deter entry in some unofficial way. It is not uncommon for these actions to take the form of tariffs, subsidies, or privileges to acquire permits or licenses in exchange for bribes. It is not surprising to see that firms in concentrated industries, with more rents to protect, are typically the most organized lobbies and the most effective interest groups at influencing regulation. The existence of rents and the appropriation thereof creates a strong incentive to *capture* the regulator or other government agents that can ensure protection. Rents may not be the only determinant of shifts in the demand of corruption, but they may well be the most important factor.[14]

In this simple demand and supply scheme, the corruption equilibria that arise depend on the market structures where both politicians and entrepreneurs operate, as well as on their relative bargaining power. On the one hand, politicians have incentives to extort firms based on their horizons or expected permanency. On the other, entrepreneurs have incentives to capture based on their economic rents. This first effect is indeed parallel to the one proposed by Campante et al. (2005), who document a U-shape relation between corruption and political stability. In their framework, a U-shape emerges when a more stable incumbent allows the private sector to implement its projects over a reasonable horizon in exchange for bribes, and a less stable incumbent has strong incentives to extort as his chances of preying on firms diminish. At medium levels of stability, these offsetting forces yield a lower level of graft. We borrow from this theory the supply-side mechanism and extend this framework to include a fuller demand-side component.

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[13]Through this definition we contend that political organization cannot be reduced exclusively to party or electoral organization. Parties themselves are aggregations of distinct and, in some cases, diverse organizations. In order to quantify the political market structure, however, in the analysis that follows we make this—perhaps restrictive— simplification.

[14]One could also think of special technologies or human capital, which may affect firm-specific cost structures. In the end, these features are also related to the firm's ability to appropriate rents within its own industry.

In contrast to Campante et al. (2005), our demand-side effect is not only driven by the expected permanency of the incumbent, although we acknowledge it is a crucial force. In our framework, permanency interacts with industrial structure generating converging and diverging incentives along the horizon path. This is because entrepreneurs are endowed with bargaining power, which derives from the economic influence they exert over their industries. This influence generates an increasing motivation to capture as the stakes in play become larger, regardless of horizon concerns. When political permanency or stability is low, however, entrepreneurs become concerned for the return on their capture investments. When horizons are extremely short, the private sector becomes reluctant to bribe government officials. This extension in our analysis allows for industrial organization to play a role in the shaping of corruption incentives between politicians and entrepreneurs.

Although simple and tractable, the above analysis of supply and demand of corruption remains incomplete. In order to fully understand corruption equilibria, we need to add an understanding of how incentives between politicians and entrepreneurs interact within their markets. In the analysis that follows, we show how certain parameter values lead to a nonlinear relationship between corruption and political stability, and how industrial structure is important to this connection.

A Toy Model

In this section we model the market structure of politicians and entrepreneurs and their incentives for corruption. The following includes a simplification of the setting presented in Campante et al. (2005), plus it incorporates our own *rent* effect. We do not solve for equilibrium levels of corruption analytically, we simply outline the incentives of each agent in terms of their market structure. In this toy model, γ is our horizon parameter. We assume $\gamma \in [0, 1]$, which can be interpreted as the probability of the politician losing office.

First, assume an entrepreneur, E, who in the absence of dealings with the public sector, faces a competitive environment and earns normal profits. The entrepreneur can spend c amount of resources in capture or corruption activities (i.e., bribes) in order to obtain public goods that will enable her to face a less competitive environment and earn extra-normal rents. These public goods can come in the form of tax breaks, subsidies, concessions, contracts, and favorable legislation. In general, anything that places the entrepreneur at an advantage relative to her competitors. The entrepreneur will get the benefits of c after returns from investment have been realized. If she decides not to pay a bribe, she can continue with her normal course of operations, she will simply not get any additional rents. We assume that, since the bribe is paid by the entrepreneur voluntarily, there is no threat of the dealing being exposed by either party.

In order for the entrepreneur to get the rents, however, the politician must provide favorable conditions for her along the way. We can think of this as a piece of legislation that will be decided after returns have been realized, or a tax break that can be granted only after returns are realized. The entrepreneur is willing to capture as long as the politician is in a position to provide this protection within a feasible policy horizon, $(1 - \gamma)$.

We assume capture resources are increasingly costly to the entrepreneur, $\psi(c)$, with $\psi_c > 0$ and $\psi_{cc} > 0$. In particular, we make $\psi(c) = \frac{c^2}{2}$. The entrepreneur has rents $\alpha(c)$, with $\alpha_c > 0$ and

$\alpha_{cc} < 0$. She thus maximizes her expected profits given by:

$$\max_{c} \left[\pi \equiv (1 - \gamma)\alpha(c) - \frac{c^2}{2} \right]$$

This yields E's optimal capture expenditures,

$$c^* = (1 - \gamma)\alpha_c \qquad (1)$$

From this expression, we note that E will spend resources in capture activities as long as the return of 1 dollar spent in bribes equals the marginal increase in rents. However, capture expenditures are capped by the feasible policy horizon of the politician γ. This yields one of our propositions, which characterizes the entrepreneur's incentives as a function of the politician's horizon: $\frac{\partial c^*}{\partial \gamma} < 0$.

Also, a politician, P, seeks to maximize his private benefits derived from being in office. We assume the politician is self-interested and derives benefits only from revenues from the private sector. From expression 1 we can see that when the politician's horizon is short (γ is large), E will find it optimal to pay little in bribes. The politician, therefore, would like to have an additional mechanism to obtain revenue from E. In order to include this incentive of the politician, we assume that E can also be subject of extortion, r, which is an up-front payment to the politician without which she cannot operate. Extortion is different from bribery in two ways. First, E gets the benefits (avoids the costs) of extortion right away, before the return from operating is realized. Second, extortion payments do not increase the potential rents she can get.[15]

Extortion is costly to P. First, it requires effort from the politician and second, it raises the political risk because since it is *imposed* on E, she may consider the option of exposing the politician. Finally, the politician remains in power with probability $(1 - \gamma)$, but he is ousted with probability γ.

The entrepreneur's rents now become $\alpha(c, r)$, with $\alpha_c > 0$, $\alpha_{cc} < 0$, $\alpha_r < 0$, $\alpha_{rr} > 0$, and $\alpha_{cr} < 0$.[16] Note, however, that since the entrepreneur does not choose r, c^* does not change when we include extortion payments.

The politician's utility is given by,

$$U^p = r + c^* - \mu \frac{r^2}{2}$$

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[15]This is, of course, a crude simplification intended for expositional purposes. In reality, the thin line differentiating bribery and extortion is unclear. Imagine a firm that wants to conduct business without paying bribes, even if it implies facing a competitive environment and foregoing extra-normal rents. If another firm decides to pay the bribe, the first firm is placed at a disadvantage, and ultimately could be put out of business. In this sense, failing to pay a bribe implies business suicide, and thus bribery and extortion become the same.

[16]$\alpha_{cr} < 0$ means that the sensitivity of rents to bribes is reduced when extortion is higher. For example, if extortion is higher, E's available investment resources are reduced and she may not be able to acquire better (though more expensive) technologies that would increase benefits in a less competitive environment.

The politician derives gains from his relationship with the entrepreneur in two forms. First, he can expropriate an amount r from the entrepreneur as extortion. As noted above, since r is not obtained voluntarily from the entrepreneur, the politician faces political costs given by $\mu\frac{r^2}{2}$. We can think of this cost as the resources that must be spent to maintain extortion hidden. Other things constant, P will always prefer to get payment as bribes than as extortion in order to avoid the risk of being exposed. Second, the politician receives bribes c^* as a payment for accrued rents to the entrepreneur, $\alpha(c, r)$. Substituting for c^* using equation 1, the first order condition of the politician's problem yields:

$$r^* = \frac{1}{\mu}[1 + (1 - \gamma)\alpha_{cr}] \tag{2}$$

In the above expression, r^* is the optimal extortion level, which is a function of the politician's horizon, $(1 - \gamma)$, the cost of keeping extortion hidden, μ, and the sensitivity of the rents growth rate, with respect to extortion, α_{cr}. From expressions 1 and 2, we derive the following propositions.

Proposition 1: *Short horizons threaten the politician's rents due to a lower likelihood of remaining in office, and thus increase his incentives to extort entrepreneurs. The politician increases his extortion income as the probability of remaining in power decreases. This is the "horizon effect." Formally, $\frac{\partial r^*}{\partial \gamma} > 0$.*

Proposition 1 outlines the standard horizon effect, or the 'stationary' versus the 'roving' bandit tradeoff (Olson 1993, Olson 2000). The logic is that a self-interested ruler, with monopoly over taxation, will not exact his domain with excessive levies as long as he expects to remain in power for a reasonable time. His interest in revenue-maximization will dictate an optimal theft-tax that will not distort the incentives of his subjects on investment and production. When this ruler has a short horizon, however, he stops caring about his domain's incentives to invest and produce. He then becomes a 'roving bandit' with nothing to loose from pillaging his domain, as he knows he will not be around much longer. In a similar way, political competition, through its effect on politicians' perceived horizon, determines corruption. On the one hand, political stability, by stretching the permanency of a self-interested politician, motivates him to place more importance on his constituency's welfare. On the other hand, political competition increases the likelihood of the incumbent's replacement, which shortens his perceived horizon and shifts his preferences to his own well-being exclusively.

Proposition 2: *When horizons are long (γ is small), the entrepreneur has more incentives to bribe the politician because his projects may be implemented over the incumbent's longer window of opportunity. Long horizons imply corruption investments are likely to yield a high return. Conversely, the entrepreneur demands less corruption opportunities when the politician's horizon is short. Short windows of opportunity imply a lower likelihood of implementing the projects the entrepreneur pays for. This is the "capture effect." Formally, $\frac{\partial c^*}{\partial \gamma} < 0$.*

Proposition 2 describes the capture effect, which describes entrepreneurs' incentives to bribe as a function of the political horizon they face. Long horizons or high expected party permanency ensures that the projects entrepreneurs pay for will be implemented over a reasonable time frame. However, as horizons shorten or when permanency seems unlikely, the entrepreneur is less willing to invest in a corrupt relationship with the politician. An entrepreneur is only willing to pay the

politician in exchange for protection in the form of regulation or other barriers to entry. Clearly, the possibility of entry into his industry or the increase of product-market competition threatens the entrepreneur's production rents. When the expected permanency decreases, however, the politician is unable to ensure provision of effective protection, given his lower chances of keeping office. The entrepreneur is thus discouraged to make short-term corruption investments, when the expected return is low.

Proposition 3: *In equilibrium, the politician's incentives for extortion (supply-side) and the entrepreneur's incentives for bribery (demand-side) yield three regimes of corruption.*
(i) First, when horizons are short (or when political permanency is low) equilibrium corruption is high. Politicians have incentives to extort from the entrepreneur more than what the latter is willing to grant in bribes. In this case, the horizon effect dominates the capture effect.
(ii) Second, when horizons are long (or when political permanency is high) and rents are substantial, equilibrium corruption is high. In this case the entrepreneur has incentives to offer more bribes, which the politician is willing to take.
(iii) Third, with medium horizons (or when political competition is neither high nor low) equilibrium corruption is low. The politician has no incentives to increase extortion, and the entrepreneur has no incentives to increase bribes. In this case, neither the horizon nor the capture effect dominate.

The above proposition yields three different levels of corruption, as a function of the parameters of the model. In the first case, the horizon effect of the politician dominates the capture effect of the entrepreneur. In the second case, the inverse is true. The capture effect of the entrepreneur dominates the horizon effect of the politician. Finally, in the third case, neither effect dominates, leading to lower levels of corruption. In the following propositions, we explore the effects of short horizons and high product-market competition in the determination of equilibrium corruption. In addition, we introduce the effect of institutional constraints on the politician, such as checks or balances and its effect on the supply of corruption opportunities.

Proposition 4: *Substantial potential rents in the product market (α is large) create incentives for the entrepreneur to secure them by bribing the politician. These incentives are increasing in the size of potential rents. This is the "rent effect." Formally, $\frac{\partial c^*}{\partial \alpha_c} > 0$. When horizons are short (γ is large), the capture effect dominates the rent effect. Formally, $\frac{\partial c^*}{\partial \gamma \partial \alpha_c} < 0$.*

The first part of Proposition 4 puts forth the industrial organization view that entrepreneurs' incentives are directly related to the production rents they obtain within their industries (Laffont and Tirole 1993, Laffont 2000). In our view, industrial concentration or competition illustrates how these incentives are shaped. The idea is that entrepreneurs demand more corruption opportunities when there are larger rents at stake. Proposition 4 states that industrial concentration induces entrepreneurs to increase the payments made to politicians in order for them to keep competitors out of the industry and have their rents secured. In other words, an entrepreneur is willing to pay more upfront in exchange for government protection the higher the potential rents in his industry, ceteris paribus.[17]

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[17]The burden of regulation is also an important factor affecting entrepreneurial rents although, we view regulation as a supply-side instrument chosen by politicians in order to facilitate extortion.

Nonetheless, when taking political horizons into account, this rent effect is offset by the capture effect. This is the second part of Proposition 4. Over long horizons, firms reward the politician in exchange for certain, long-term protection. In contrast, over short horizons, entrepreneurs are not willing to make bribe disbursements due to a lower likelihood that the protection they pay for will in fact be provided by the incumbent's successor. In this case, the incentives for capture are reduced, regardless of the monopoly rents present in the product market. The uncertainty of whether the public goods entrepreneurs pay for will yield a return interacts with the enticement of securing large rents whenever they are available. Whether the capture or the rent effect dominates is an empirical question. In our empirical analysis, we test this proposition using an interaction term of the politician's horizon and the industrial concentration where the firm operates.

Proposition 5: *When rents are small (α is small), the politician decreases his revenues from extortion by forcing entrepreneurs to pay up the small income they make, even when horizons are long (γ is small). Formally, $\frac{\partial r^*}{\partial \gamma \partial \alpha_c} < 0$.*

The above proposition states that, in some very competitive industries, short political horizons do not necessarily lead to higher levels of corruption in equilibrium. The proposition can be interpreted in the following way. In the standard model, increased political competition (or shorter horizons) induces politicians to exact more levies on entrepreneurs. This is the case of a 'roving' politician, who no longer optimizes theft-tax in his constituency, but instead preys on everything within his reach. When the extorted entrepreneurs happen to operate in highly competitive industries, however, the politician may reduce his total corruption revenues by forcing the firm to surrender everything it has to self-sustain (Bliss and Di Tella 1997). In a figurative way, the politician forces the firm to exit the industry by taxing it excessively with corruption, and thus corruption revenues from those firms become smaller. In our empirical analysis, we test this proposition using an interaction term of the politician's horizon and the industrial concentration of highly competitive firms.

Proposition 6: *Constraints on the politician's ability to extort the entrepreneur (μ is large) can, in equilibrium, lower the incidence of corruption regardless of his horizon. Formally, $\frac{\partial r^*}{\partial \mu} < 0$.*

The idea behind this proposition is to underscore the importance of effective constraints on the bargaining power of the incumbent. For instance, checks and balances placed on the politician may lead to lower levels of corruption in equilibrium, regardless of the horizon effect. Several studies have found that more independent judiciaries, enhanced enforcement of property rights, and a stronger tradition of the rule of law diminishes corruption (Johnson, Kaufman, McMillan and Woodruff 2000, Campante et al. 2005). Independent or counterbalancing institutions impose limits on the ability of politicians to expropriate, and should thus reduce the incidence of corruption. In our empirical analysis, we also test this proposition using an interaction term of the politician's horizon and a proxy of the bargaining power of the politician.

4 Data

Corruption Survey

Our data on corruption comes from a proprietary plant-level survey designed and fully financed by the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), one of the most reputable educational institutions and also the largest private university system in Mexico. The survey titled "Survey on Governance and Entrepreneurial Development" (henceforth SGED), collected data on bribe payments made by firms as a fraction of their revenues. Specifically, firm managers were asked how much they paid in bribes made to low-level public officials (i.e., bureaucratic or administrative corruption), as well as to high-level public officials (i.e., political corruption). The survey was conducted between January and March of 2002. The sample design and fieldwork were carried out by a highly regarded market research firm in Mexico City. Finally, researchers from both ITESM and the World Bank, plus several other experts on corruption, provided advice on the design of this survey.

The survey consists of 88 questions roughly proportionally allocated across 12 sections: (1) firm characteristics; (2) obstacles to entrepreneurial development; (3) honesty of public institutions; (4) laws, policies, and regulation; (5) corruption; (6) costs of bureaucracy; (7) quality of public goods; (8) public licenses and concessions; (9) effectiveness of the judiciary; (10) unofficial economy; (11) government perception; and (12) firm financial characteristics. Only eight out of 88 questions (less than 10 percent) addressed corruption in a direct way. Thus, it seems unlikely that missing data on corruption in our survey is systematically correlated with the magnitude of unofficial payments.

Managers of 6,145 firms and plants in Mexico City and the 31 Mexican states, covering 288 out of the 2,443 municipalities in Mexico were surveyed through the SGED. The survey used a representative sample of firms and plants at the national and state levels. The firms selected were drawn from the Firm and Establishments Directory used by the National Statistics Institute (INEGI) for the implementation of the 1999 Economic Census. These cover the largest 250 companies in the country in terms of assets, and at least 327 firms from the construction, telecom, transportation, and financial sectors, all defined by INEGI as nationally representative industries. The sample also includes the 30 largest establishments in each state, plus 120 randomly selected businesses from within each state, representative of size and industry. At the state level, the target population were private firms and plants of small, medium, and large size in the manufacturing, construction, commerce, and services sectors. Size classes of firms and plants were defined according to the employment criteria described in Panel A of Table 1.

The questions in the SGED were sent in advance to respondents at firms and plants, with the purpose of giving them the opportunity to answer as accurately as possible. The methodology for collecting the data consisted of personal interviews at the firms' locations. Panel B of Table 1 shows the break up of respondents by managerial position. Out of the 6,145 firms contained in the original survey directory, 65 percent resulted in effective interviews, 23 percent were negatives, and 12 percent decided to postpone the interview.[18] After data collection, the final sample is comprised

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[18]Those firms that decided to postpone the interview are not included in our sample.

of 3,985 firms. After careful checks, we found no evidence that the 23 percent of refusals to answer our survey systematically differ in size, profitability, or are concentrated in specific industries or geographic regions.

In our empirical analysis, we control for firm observables using the answers to the sections on firm characteristics of the survey (sections 1 and 12). In these sections, firms reported detailed information on their business operations and financial statements. The data on firm attributes include items from the income statement such as sales, production costs, operational and administrative expenditures, bureaucratic costs, financial costs, and net profits. The survey also contains data on the number of employees, firm age, whether the firm imports or exports, and whether the firm enjoys any government relationship.

Micro Data on Corruption

We focus on two measures of corruption drawn from the survey. First, we use the fraction of total yearly revenues that firms report paying to low-level public officials and bureaucrats in order to obtain permits, licenses, and expediting bureaucratic procedures. This measure reflects, we believe, what the literature has come to term administrative or bureaucratic corruption. It is the answer to the following question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to **low-level** public officials?" We call this measure "low graft." It is not obvious from this phrasing whether the officials in question are truly bureaucrats or politicians instead. If they are indeed bureaucrats, then political permanency should not affect them in any significant way, given that bureaucrats and politicians perceive different horizons.[19] We take no a priori stand on this issue and defer the answer of this question to the empirical section.

Our second measure of corruption is the fraction of total yearly revenues that firms report paying to high-level public officials in order to manipulate the content of legislation, policies, and regulations. This measure is the answer to the following question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to **high-level** public officials in order to influence the content of new laws, policies, and regulations?" We call this measure "high graft," under the belief that it reflects more accurately what the literature terms grand or political corruption.[20] In each of the above two questions, respondents were told

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[19]Even if respondents were referring to bureaucrats when answering this question, we could still make the following two claims. In Mexico, politicians and bureaucrats can have the same horizon because the arrival of a new party to office typically involves the replacement of a significant part of the state and municipal bureaucracies. Similarly, bureaucrats may be forced to share graft revenues with higher-level politicians, who are in turn affected by the political turnover or the party's horizon.

[20]Article 390 of the Mexican Federal Criminal Code defines extortion as the practice of forcing, without right, someone to give, do, cease to do, or tolerate something, obtaining a profit at their expense and patrimonial loss. If committed by a public official, extortion is punishable by two to eight years in prison, plus inhabilitation for up to 5 years from public service. Bribery, on the other hand, is defined in article 222 as the practice by public officials of asking or receiving, for themselves or for others, money, gifts or promises, in order to do something—just or unjust— related to their public functions. Bribery is also defined as the spontaneous offering or giving by particulars of money, gift or promises, to public officials to do something related to their functions. Bribery is punishable by up to fourteen years in prison and fourteen years of inhabilitation. The survey was not explicit about the specific definitions of these types of corruption, and so it was up to the respondents to determine for themselves what constituted corruption.

that by "similar firm" it was meant one that "belongs to the same sector or class of economic activity as yours, and is of a similar size to yours."

For both these measures, the survey does not explicitly ask respondents to disclose their own corruption payments. This is the standard way of phrasing questions on corruption. The logic is that respondents will be more inclined to provide reliable information as long as the answer is not self-incriminating. Moreover, questions phrased in this manner are designed to be projective in nature. This means that since managers do not know exactly how much their competitors pay in bribes, they will make an approximation alluding to their own extra-legal payments. This is our interpretation of the corruption data examined from the survey. Furthermore, the distribution of answers to these questions lends support to this interpretation. We observe that a large fraction firms answered these two questions with astonishing precision (up to 3 digits!).[21] It could also be the case that respondents were answering these questions based on their understanding of the industry as a whole. In the empirical analysis, we control for industry and regional factors, which should ease the systematic noise contained in these corruption measures.

Our survey shows that close to 50 percent of the firms sampled reported making no corruption payments, at least for one of the two measures. Only 22 percent of our firms, however, reported no extra-legal payments for both measures. We believe the survey provided good incentives for firms to truthfully report, with some reliability, their extra-legal payments. Confidentiality, of course, was ensured both verbally and in written form.

Political Organization

Our survey was complemented with data on the political structure of states and municipalities. Our aim was to gather variables that reflect in as much as possible the political hold or tensions across polities. For this, we collected measures of electoral competition from the Federal Electoral Institute (IFE) since 1986.[22] All of our measures, except noted otherwise, are taken at the end of 2001, the year prior to the survey.

First, we measure the horizon of the incumbent politician. To do this, we track the number of years that an incumbent politician or, the state governor, has left in office. State elections in Mexico are staggered and this allows us to estimate the horizon effect by using the cross sectional variation in states where our firms are located and do most of their business. The interpretation of this measure is straightforward: as the horizon of the public official shortens, his ability to implement projects decreases and his window of opportunity to obtain benefits from office dissipates. This

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This is important to note since some people may contend that certain laws, taxes, or fees are extortionist, but that innocent gifts to politicians do not constitute bribes, even when they get can them what they want (and asked) from the public official. We thank John Womack for pointing this out.

[21]Several firms reported small fractions such as 0.15 percent and 0.257 percent, and several others reported significant corruption payments of 2.5 percent, 4.78 percent, 12.1 percent, and even 14.3 percent of yearly revenues. These numbers suggests two things. First, it does not appear that firms were rounding up reported numbers. Second, these numbers seem too precise for them to be just guesses of what the rest of the industry is paying in bribes. See Table 4 for summary statistics on Low and High Graft.

[22]Prior to 1989 all states were held by the PRI party. Some municipalities had been held by opposition parties since 1947.

measure is the closest we can get to the horizon effect and constitutes our best proxy of the political clout of the public official.

Second, we compute the share of seats that the incumbent party has in the legislature at the state level.[23] An incumbent with a large share of the local legislature is more likely to implement the policies of interest to the entrepreneur. The share of legislative seats, therefore, increases the grip of the state executive by increasing his scope of decision-making today, and increases the likelihood that the party will remain in power next term. One caveat of using the share of legislative seats is that it is only snapshot of the hold that a party has on the state government.[24]

Industrial Organization and Regions

We match our survey data to Herfindahl industry concentration indices constructed from the 1999 Economic Census. The indices are constructed for each industry at the 4-digit SIC code in each state. We use the indices as proxies for the rents enjoyed by firms in those particular industries. We also include to our data socioeconomic variables of states and municipalities. These draw from the National Statistics Institute (INEGI) and include per capita state GDP, total state population, state educational attainment, state government expenditures, and federal transfers to state governments. Finally, we include institutional proxies from a study conducted by the Mexican Institute of Technology (ITAM 2002) on the quality of the state judiciaries. The measures proxy for the independence, transparency, and efficiency with which the judiciary handles commercial claims and disputes.

5   Results

How does political and industrial organization affect corruption? In previous sections, we described a theory of corruption as a function of the interaction between the private sector, driven by its incentive to protect economic rents, and the State, driven by its incentive to exact revenue from the selling of public goods. This section provides empirical support to this theory by testing the predictions outlined in Propositions 1 through 6 of Section 4. On the one hand, the politician's horizon, measured by the years left in office of the state governor, is nonlinearly associated to corruption. In particular, the relationship between political horizon and amount of bribes paid by firms is U-shaped. On the other hand, entrepreneurs' rents, proxied by industry concentration, are positively associated with corruption. Finally, we establish that neither the politicians' market nor the entrepreneurs' market act independently. Their interaction determines the severity of corruption. Finally, we show that a politician's ability to implement policies (i.e., the hold on power), proxied by his control over the state legislature, exhibits the same U-shape pattern on corruption, which persists even when pitted against the politician's horizon in a horse race regression.

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[23]By law, political parties in Mexico can hold up to two thirds of the legislative seats in a state, but may not hold more than that share.

[24]One could think that for exogenous reasons a single election could be an outlier and not reflect the hold that a party has on power. In Mexico, the PRI lost several states in the 2000 election because of people's discontent with its performance in previous years, but was able to regain some in 2003.

Summary Statistics

Table 4 reports summary statistics for our two measures of corruption, as well as for the variables we include as controls in our regressions. It is worth noting the non-trivial amounts firms pay in corruption. On average, firms reported paying 2 percent of their yearly revenue in extra-legal payments to low-level officials or bureaucrats, and 3.3 percent to high-level public officials. The distribution of these payments is, however, very skewed. We mentioned earlier that more than half of these firms reported paying no bribes for either one measure of graft.[25] If we translate these numbers into monetary amounts, a median firm paid $132 dollars in low graft and $0 in high graft. If we restrict only to firms with a positive amount of graft, we find that a median firm pays over $13,000 in low graft and over $26,000 in high graft. These payments attain a maximum of $5 million and $11 million, respectively.

Table 4 also shows summary statistics for our two measures of political horizon: the share of seats in the state legislature belonging to the same party as the state incumbent, and the state governor's number of years left in power. These figures show that, on average, governors enjoy hold over the majority of their local congresses, and that the average governor has still 4 years in office. Table 4 includes each firm's industry concentration index, which appears to be relatively low. On average, the firms in our survey face a considerably competitive environment, with a Herfindahl index of 0.07. The regulatory burden, however, is considerable, with the mean perception being closer to excessive than fair (0.57, with 0 being fair and 1 excessive). The remaining variables are controls explained below. One caveat of our data set is that we do not have an equal number of observations across these control variables. For this reason, the number of observations in our regressions varies for low and high graft.

In Tables 5 and 6, we show preliminary evidence supporting the described theory on corruption. Table 5 reports mean corruption by state. States are split into three panels: governors with short horizons (1-2 years left in office); governors with medium horizons (3-4 years left in office); and governors with long horizons (5-6 years left in office). Per capita state GDP and party in power are also reported. The theory described suggests a U-shape form of corruption with respect to political horizons, which we observe in our high graft metric. Firms in states with short-term governors pay, on average, 3.57 percent of their yearly revenues in corruption, whereas firms in states with long-term governors pay 3.27 percent, on average. Firms in states with medium-term governors surrender, on average, only 2.85 percent of their yearly revenues. The difference in means between short (long) and medium horizons is statistically significant at the 5 (1) percent level. The differences in means between short and long horizons are insignificant. This pattern does not arise in low graft, which appears to be monotonically increasing in governors' horizons.

Similarly, Table 6 reports mean corruption by state, this time split into panels of governors' hold on the local congress. Panel A reports mean corruption in states where the governor holds less than the sample 25th percentile of share of seats in the local congress (i.e., low permanency states). Panel C report mean corruption in states where the governor holds more than the sample

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[25]Out of 3,985 firms in our sample, 1,668 (53 percent of firms providing information on low graft) reported paying positive amounts of bribes to low-level officials, and 1,461 (39 percent of those providing information on high graft) reported paying positive amounts of bribes to influence the content of new laws, policies, and regulations.

75th percentile of share of seats (i.e., high permanency states). Panel B reports corruption in states with shares in the middle two quintiles. The U-shape of corruption emerges once again, now in both graft metrics. Mean corruption is higher in states with low and high permanency measures than in states with medium permanency. The differences in means across panels are statistically significant. The previous two tables point to the same direction as the theory described in this paper. These measures, however, remain noisy and other factors need to be accounted for. Next we proceed to refine this analysis using a standard regression methodology.

Empirical Model

The theory presented in Section 3 suggests that long and short political horizons (high and low levels of permanency, respectively) should be correlated with higher incidence of graft, and intermediate horizons should be correlated with lower incidence of graft. In order to assess this effect, we estimate a series of simple regressions. Our baseline regression reduced-form specification is the following:

$$G_{i,j,k} = \alpha + \beta_1 P_j + \beta_2 P_j^2 + \beta_3 R_{j,k} + \beta_4 H_{j,k} + \beta_5 (H_{j,k} \times P_j) + X_{i,j,k} + Z_j + V_k + \varepsilon_{i,j}$$

where $G_{i,j,k}$ is a measure of the magnitude of extra-legal payments (graft) made by firm i in state j and industry k to public officials, measured as a fraction of yearly firm revenues, P_j is a proxy for political permanency, and P_j^2 its square. As proxies for political permanency we use the number of seats that the incumbent party had in the state legislature at the time of the survey and the number of years left in power of the state governor. $R_{j,k}$ is the regulatory burden faced by firms and H is the Herfindahl concentration index. X is a vector of firm controls, Z a vector of state controls, V is a vector of industry dummies. Finally, $\alpha, \beta_1, ..., \beta_5$ are the coefficients of the model.

In all of our regressions we include two sets of controls for firm- and state-specific attributes, which can have independent effects on corruption. The reason we do this is because certain firms are more prone to pay bribes in order to operate and some state characteristics can also facilitate the spread of corruption.

Our firm controls include profitability, since more profitable firms are far more able to offer extra-legal payments by using a larger pool of resources to bypass red tape and other bureaucratic barriers. We also include firm age under the assumption that younger firms, especially startups, have to deal with more bureaucratic hurdles than well established, more savvy, firms. We include employment size as smaller firms are more capable to avoid detection by government authorities and may be less subject to extortion (Svensson 2003). We also include a dummy if the firm is in the tradeables sector, since those firms are more likely to apply for permits and licenses, and another dummy if the government is a direct client of the firm, as more dealings with the government imply a higher likelihood of having to pay bribes. Finally, we include 101 industry dummies (4-digit SIC) in all regressions.

Our regional controls are standard in the empirical literature. We first include the log of per capita state GDP as a proxy for economic development and the state average years of schooling as

a more educated populace is more intolerant to corruption, and the log of state population because in more populous states individuals may need to resort more often to bribes to get 'ahead in the queue' for public goods (Fisman and Gatti 2002a). We include total state government expenditures as a share of state GDP to proxy for the size of government. Larger governments have more weight in the economy, leading to more interactions between government officials and individuals Mocan (2004). In addition, we include federal transfers to the state government as a share of state GDP. Federal transfers proxy for the degree of fiscal centralization. We take no a priori stands on this control since there is an ongoing debate as to whether decentralization encourages (Tanzi 1998) or mitigates (Fisman and Gatti 2002a) corruption. Finally, all regressions include robust standard errors, which are clustered by industry and state groups.

Two additional concerns are in order. First, the age of a political party may be correlated with its corruption propensity, either because of better extortion technologies (the older the more corruptible), or because of improved internal controls (the younger the more corruptible). We address this issue by including party dummies in our specification. In this way we control for party unobservables, unrelated with political contestability. Secondly, if the incidence of graft is concentrated at the federal level, then political contestability in the state should not be relevant to determine corruption in our cross section.[26] We tackle this issue by analyzing firms' reported graft levels at different levels of government. Panel C of Table 1 shows the intensity of graft at the federal, state, and municipal levels. In particular, one question from our survey asked: "How frequently do firms similar to yours make extra-official payments to influence the content of new laws, policies, and regulations in each of the following levels of government: Federal, State, and Municipal?" Bribe intensity is measured as an index. The answer to the question is an index taking values from zero (never) to 8 (very frequently). We observe that firms consider graft a significantly bigger problem at the state than at the federal level (an index value of 1.36 versus 1.20), and a significantly bigger problem at the municipal than at the state level (an index value of 1.63 versus 1.47). The differences in the index are statistically significant at the 1 percent confidence level.

The Political Horizon

In Table 7 we explore the impact of the political horizon on the incidence of graft. The horizon of a state governor is an exogenous institutional feature in Mexico. Governors are elected for six years without the possibility of reelection. At the end of 2001, 6 out of the 32 state governors were in their first year in office, 7 in their second, 10 in their third, 6 in their fourth, and 3 in their sixth. There were no state governors in their fifth year. The variation in governors' terms allows us to explore the horizon effect with great clarity. This is a direct test of the horizon effect described in Proposition 1 of Section 4, as well as the first solid empirical test of the theory presented by Olson (1993) and Olson (2000). We test whether politicians with long horizons are more prone to capture by firms and that politicians with short horizons offer (or force) more corruption opportunities

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[26]On this point Prud'homme (1995) argues that there are usually more opportunities for corruption at the local than at the federal level for two reasons: local officials generally have more discretionary power than national policy makers, and local bureaucrats and politicians are usually more likely to face pressing demands from local interest groups. Additionally, most firms in Mexico are small, and therefore essentially local. The only officials that such firms have the resources and skills to bribe are thus local.

given the little time they have left to take advantage from being in office. Proposition 3 shows that, in equilibrium, high corruption levels emerge for long and short horizons, and low corruption levels for medium horizons.

Results are shown for both bribes paid to low-level officials to circumvent bureaucratic red tape (low graft), and for bribes paid to high-level officials in order to influence the content of new laws, policies, and regulations (high graft). In columns (1) and (3), we regress low graft and high graft, respectively, on the number of years that the state governor has left in office and its square, without additional controls. Years left in office show a robust non-linear effect on the level of corruption, providing evidence of a U-shape effect of political horizons on corruption. The results differ significantly between low and high graft. For the case of low graft (column (1)), the linear term is negative and the quadratic term is positive as expected, but none of them is statistically significant. For the case of high graft (column (3)), however, the effect is not only larger, but also both terms are statistically significant at the 5 percent level. The linear term is negative and the quadratic term positive, as expected.

In columns (2) and (4), we include measures of industrial organization that are relevant to determine the levels of corruption. We include the perceived burden of regulation by firms and a proxy of state-industry concentration in the industry where the firm operates. We also explore the sensitivity of firms' bribing propensity to the political horizon. To test this interconnection, we include an interaction term of the stat-industry concentration with the years left in office for the state governor. The state and firm controls described earlier are also included. For low graft, including measures of industrial organization and state and firm controls (column (2)) does not affect the results. In other words, the politician's horizon has no significant effect on administrative corruption, which is what low graft seems to proxy for. For high graft, however, the results are quite different. Including controls (column (4)) almost triples the magnitude of both coefficients, and both become significant at the 1 percent level. These results suggest that as the years in power fade away and the horizon of the politician shortens, the incidence of high (political) corruption first decreases and then increases. We conclude this is direct evidence of a capture effect dominating over a horizon effect when horizons are long (the first few years in office). Conversely, when horizons are short (the last few years in office), a horizon effect dominates over a capture effect. The stark difference in the impact of the politician's horizon on low and high graft is indicative that low graft captures mostly bureaucratic corruption, whereas high graft quantifies political corruption.[27]

Industrial organization also has a significant impact on corruption, although affecting low and high graft differentially. For low graft, the perceived burden of regulation has a positive effect on corruption. This effect is significant at the 5 percent level. Industry concentration, on the other hand, does not appear to have any explanatory power on the level of corruption. In contrast, regulation seems to have no impact on high graft. Industry concentration, however, does have a positive effect on high graft, significant at the 10 percent level. A one standard deviation increase in industry concentration increases corruption by 2.4 percent. Even more interesting, we find an

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[27]In other words, low graft could be a function of the organization of much lower levels of government (local) and/or related to much lower government officials (small bureaucrats), which would be consistent with governor horizon having no impact on them.

interconnection between the organization of the product-market and that of the political market. The interaction coefficient is negative and significant at the 1 percent level. This indicates that the capture effect declines as the horizon of the politician shortens. In the second half of the governor's term, a one standard deviation increase in industry concentration reduces corruption by 2.9 percent. Our interpretation is that entrepreneurs make long-term investments in politicians in order to protect their rents, but do so only with officials who have considerable expected permanency in power. This finding yields support to the capture hypothesis, where firms with larger rents pay to secure protection from politicians, but are unwilling to pay to those from whom protection is uncertain.

The coefficients of state and firm controls in Table 7 corroborate stylized findings in the corruption literature, and clarify some links between corruption and our measures of low and high graft. Overall, state controls do not seem to have an impact on corruption. The log of per capita GDP enters negatively on low graft, but positively on high graft. None is statistically significant, however. Surprisingly, not only did we not find the expected negative sign of education on bribes, but in fact, there is hardly any effect. For both low and high graft, the coefficient is positive but insignificant. Conversely, government expenditures have a large negative effect on high graft. A one standard deviation increase in government expenditures decreases high graft by 49 percent of the mean, or 0.9 percent. This effect is significant at the 10 percent level. For low graft, however, the magnitude is smaller and insignificant. Federal transfers have a large positive and statistically significant impact on high graft only. A one standard deviation increase in federal transfers to the state government increases high graft by 152 percent of the mean, or 3 percent.

There are also significant differences with regards to the impact of firm controls on low and high graft. Profitability has a positive effect on both low and high graft, but the effect is significant only for low graft, at the 1 percent level. A one standard deviation increase in profitability increases low graft by 4.2 percent of the mean. This finding can be read in two (non-exclusive) ways. First, more profitable firms are more capable of offering bribes to circumvent bureaucracy. Alternatively, public officials can extort more from more profitable firms (Svensson 2003). As expected, we find that firm age reduces graft. The effect is small, but significant for both low and high graft. Employment size enters negatively on low graft only. Close ties with the government lead to more extra-legal payments. This effect is significant only for low graft. Having the government as a direct client increases low graft by 0.7 percent of the mean. This result stands in contrast to Svensson (2003), who finds no explanatory power from having the government as a client. Finally, being in the exports and/or imports (i.e., tradables) business implies paying more in bribes, but the effect is insignificant on both, low and high graft. On this point, Svensson also finds a positive and significant effect of tradables on graft.

In order to push further our hypothesis of the horizon effect, we include year dummies in our specification. Specifically, we regress both, low and high graft, on a set of dummy variables for every year in office—for the six-year term—and include our measures of industrial organization plus the usual controls.[28] The results from this specification appear in Table 9. For low graft, the

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[28]Since we do not have states whose governor was in his fifth year in office, we only have five year dummies. To maintain symmetry, we arbitrarily drop the dummy for the second year in office. We thus have dummies for the first,

year in office of the state governor have little to no effect on bribes. Only the coefficient for year four is significant (columns (2) and (3)). This confirms our intuition that low graft proxies petty or administrative corruption, which should be less reactive to the political horizon of the state incumbent. Regulation retains its explanatory power on low graft. High graft, on the contrary, offers compelling evidence of a U-shape pattern between bribes and the politician's horizon. Column (4) shows that entrepreneurs pay, on average, higher bribes in the first and last years of the administration, and lower bribes at the mid-term. The coefficient of year 1 is positive although not significant, that of year 3 is negative and significant at the 5 percent level and, finally, year 6 is positive and significant at the 5 percent level. Column (5) exchanges year 4 for year 3 as the mid-term year, showing a similar pattern. Although in this case, the coefficient of year 1 is significant at the 5 percent level, and that of year 6 at the 1 percent level. Column (6) includes both mid-term years and confirms the pattern. The first and last year coefficients (year 1 and year 6) are positive, and both mid-term year coefficients (year 3 and year 4) are negative. Only year 3 is significant, however. These results indicate that politicians prey more on firms towards the end of their terms in office. The coefficients of industry concentration and its interaction with the short horizon dummy remain of the expected sign and significant.

Political Organization and Industrial Structure

In this part, we explore the robustness of the horizon effect and analyze its interaction with the industrial structure. We deal exclusively with high graft, after having found no significant effect of horizons on low graft. In Table 11 columns (1) and (2), we run the same specification as in column (4) of Table 7, piecewise. Column (1) looks only at the first half term in office (first three years), and column (2) at the second half (last three years). The results hold strongly. In particular, for the first three years in office, corruption decreases as the horizon shortens, industry concentration has a positive effect on corruption, and this effect also decreases as the horizon shortens. This suggests that entrepreneurs are willing to pay more bribes to politicians who stay around longer to protect their interests. Column (2) illustrates a different story. During the second half term in office, corruption increases as the politician's horizon shortens, a result consistent with our previous results. Industry concentration has a negative effect on corruption, significant at the 10 percent level.

These results suggest that, towards the end of an administration, firms are unwilling to pay politicians to secure their rents. We conjecture this is the consequence of firms effectively using their bargaining power when horizons are short. If this is true, we should expect politicians to extort more from firms in less concentrated industries. The interaction term is not significant, indicating this is not the case. Column (3) shows the same model on the entire sample, this time including three interaction terms. We create a dummy for the first two years in office (long horizon) and interact it with industry concentration. We do the same with the middle two years in office (medium horizon), and with the last two years in office (short horizon). The results show that industry concentration affects corruption positively only when horizons are long; the coefficient is significant at the 1 percent level. This lends support to our capture hypothesis: when firms

third, fourth, and sixth years in office.

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enjoy rents, they will pay for protection only if the politician 'sticks around' to provide shelter. The coefficients of the interaction terms with medium and short horizons are negative, but not significant.

Share of Seats in State Legislature

In Table 12, we use the share of seats that the incumbent party has in the state legislature as our proxy for hold on power. Results are shown for both low graft and high graft. In columns (1) and (4), we regress low graft and high graft, respectively, on the share of seats held by the incumbent party (share of seats) and its square, without additional controls. The share of seats in the state legislature has a non-linear effect on the level of extra-official payments made by firms. The linear term is negative and its quadratic positive across specifications, suggesting a U-shaped effect. This implies that, high and low seat concentrations are both correlated with large extra-legal payments, and intermediate concentration with smaller payments. The linear and quadratic terms in columns (1) and (4) are significant at the 5 percent level. The magnitude of these coefficients is somewhat equivalent for low and high graft.

Columns (2) and (5) expand on this initial specifications for low graft and high graft, respectively, to include industrial concentration, firm, and regional controls. The coefficients of the share of seats and its square on low graft lose significance. In contrast, the same coefficients on high graft more than double and become significant at the 1 percent level. Share of legislative seats is a measure of the political opposition that the state incumbent faces today. It thus measures the strength of the politician's cling on power, but not necessarily how entrenched bureaucrats are. Therefore, it is not surprising to observe this metric affecting only political and not bureaucratic corruption.

Once again, we test the interactions between the political market and the products market, with the inclusion of an interaction term between industry concentration and a dummy taking the value of one if the executive does not have absolute majority in the state legislature. It captures whether industry concentration has a differential impact on corruption, depending on the politician's hold on government. Our understanding of this interaction term is the following: if entrepreneurs have rents to shelter, they should be willing to offer more bribes to politicians that can offer effective rent protection, that is, those who have a stronger hold on power and can implement policies with more certainty. An alternative interpretation is, entrepreneurs place bets on public officials who are more likely and have more scope to protect their rents via favorable policies or legislation. If any of these are true, we should observe the effect of industry concentration on corruption decline as the hold on power declines. This prediction follows naturally from Proposition 4. We find that the coefficient of the interaction term is negative, but not significant for either low or high graft. The coefficients of state controls change slightly compared to those in Table 7. Firm controls remain stable.

In Table 13, columns (1) and (2) run the same specification using a Two-Stage Least Squares estimation procedure. We use the presence of federal social relief programs in the state as instruments. Federal social programs are funded directly by the Ministry of Social Development (SEDESOL) and are implemented in state localities through community groups. Historically, social relief pro-

grams have been targeted to states or municipalities that are politically contested, and which the federal government aims to secure for its own party. If our instruments are suitable, we should first observe the presence of such programs to be correlated with the political contestability of the state government.[29]. Moreover, since these resources are federal and channeled through committees and community assemblies, we should not expect the presence of these programs to be correlated with our measures of corruption. These two facts combined make the presence of federal social programs a valid instrument for this exercise. The main results hold when we use instrumental variables.

A Horserace Regression

Since the end of the Mexican Revolution in the early 1920s, public officials at the state and federal levels are prohibited from seeking reelection of public office. Their horizon is, therefore, exogenously capped. However, a party, as an entity of its own, may be concerned with reelection. This brings up an important question: is it the party's or the politician's horizon that is driving corruption? To test the relative magnitude of different measures of permanency on corruption, we include both of our measures of hold on power and horizon plus their squares, in the same regression. We perform a horse race between them. In order to make coefficients comparable, we standardize our measures of permanency so that they are mean zero with a standard deviation of one.

Table 14 shows the results including all measures of political stability together. Columns (1) and (2) measure the impact on low graft, (1) without controls, and (2) with industrial structure, state, and firm controls. Columns (3) and (4) do the same for high graft. We confirm that party permanency affects low and high graft in very different ways, suggesting that this difference is related to the bureaucratic and political nature of our measures of corruption. In brief, political organization and petty corruption do not seem to be correlated, the latter perhaps driven by more localized government organization, and/or lower level officials. By including state and firm controls, neither share of seats nor years left in office have any impact on the incidence of bureaucratic corruption across firms (column (2)). Nevertheless, high graft presents a different pattern. Remarkably enough, both the party's hold on power and the politician's horizon play a role as determinants of high graft (column (4)). Share of seats and its square have the expected signs, and are significant at the 5 percent level. Years left in office and its square also have the expected sign, and are significant at the 1 percent level. Moreover, all coefficients are similar in order of magnitude. The measures of industrial organization exhibit the expected behavior, so do state and firm controls (not shown). Table 15 presents the results of running the same specification, but using the year dummies as a measure of the politician's horizon, instead of the linear and quadratic terms. The results hold.

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[29]A state has, on average, 6,200 localities

6 Conclusions

In this paper we document an empirical relationship between political horizons and the incidence of corruption. We first show that a decreased sense of political permanency or a thinned-out hold on power increases politicians graft. Conversely, we also show that industrial concerns are more likely to bribe under a strong sense of political permanency that is, when political horizons are long.

In particular, our evidence suggests that the relationship between political permanency and corruption is not monotonic, as in Campante et al. (2005). On the one hand, firms that do business in states with long expected political horizons pay, on average, larger bribes than firms located elsewhere. On the other hand, firms that do business in states with short expected political horizons also make more extortion payments on average, presumably forced by local politicians. Finally, in states where political permanency (or competition) is at a "happy medium" the incidence of political graft seems to be considerable much lower than at the extremes. Both of our measures of political horizons and hold on power—years left in office of the state governor and the incumbent's share of legislative seats— corroborate the findings of Campante et al. (2005). Interestingly, years left in office for a state governor and share of seats in the local legislature belonging to the same party as the state incumbent, capture a different component of political permanency. When included both in a horse race regression, their effect on corruption prevails.

With this paper we attempt to fill a gap in the empirical literature on the determinants of corruption. In particular, this paper provides a better understanding of the political determinants of corruption and the importance of political horizons in the shaping of industrial interests.

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Figure 1: **Theoretical Framework**
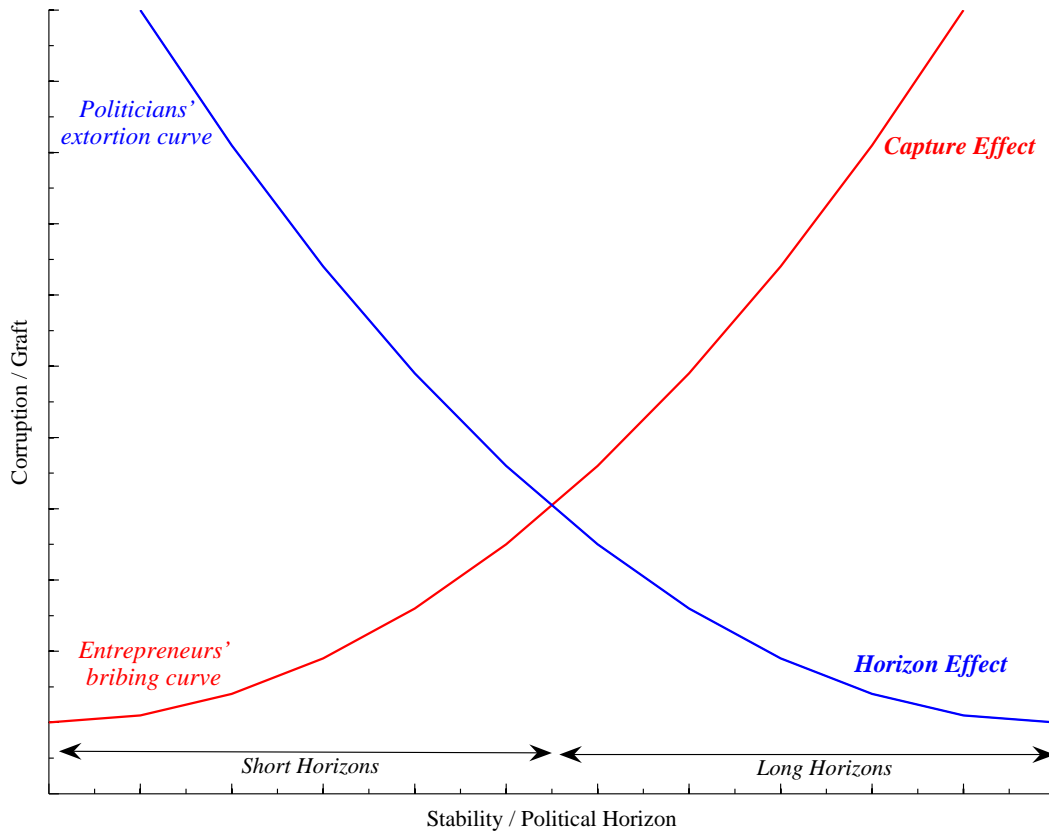
Table 1: **Survey Details**

Panel A: Industry Size Criteria for Survey Sample				
Size	*Manufacturing*	*Construction*	*Commerce*	*Services*
Small	31-100	31-50	6-20	6-50
Medium	101-500	51-500	21-100	51-100
Large	501+	251+	101+	101+

Panel B: Breakup of Survey Respondents	
Category	*Percentage*
Owner of the Firm	17%
CEO/Vice President	1%
Director / General Manager	32%
Director / Division Manager	12%
Manager, CFO, or Treasurer	21%
Person responsible or in charge	9%
Other	8%
Total	100%

Panel C: Intensity of Corruption by Government Level		
Index	*N*	*Mean*
Federal	3,898	1.2032
State	3,897	1.3613
Municipal	3,898	1.4733

t-stats for differences in means	
Federal vs. State	-3.5657
State vs. Municipal	-2.4012
Federal vs. Municipal	-5.9312

Table 2: **Variable Description**

Variable	Description	Source
Share of Seats	Percentage of the state Congress seats that the incumbent party holds at the end of 2001.	IFE
Years Left in Office	Number of years that the executive has left in office. In Mexico, state governors are elected for a period of 6 years without the possiblity of re-election.	IFE
Low Graft	Self-reported level of bribes paid to low-level officials. The survey asked: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?"	Firm Survey
High Graft	Self reported level of bribes paid to high-level officials. The survey asked: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?"	Firm Survey
Regulation	Regulation is a measure of the regulatory burden perceived by the firms in a given industry. The survey asked: "In your interaction with government institutions at the federal level, how would you rate the amount of regulations?" Possible answers ranged from 1 (fair) to 7 (excessive). The variable was rescaled to values between zero and one.	Firm Survey
Industry Concentration (HHI)	Industry concentration is calculated using the Herfindahl Hirschman Index. The index calculates the market share held by the top 10 firms in the industry. The index is calculated for each industry (4-digit SIC classification) in each of the 32 states in Mexico.	INEGI
Log of Population	Log of state population in 2001.	INEGI
Log of Per Capita GDP	Log of state per capita GDP in 2001.	INEGI
Education	State average years of schooling in 2001.	INEGI
Government Expenditures	Total state government expenditures as a share of state GDP in 2001.	INEGI
Federal Transfers	Total federal transfers to the state as a share of state GDP in 2001.	INEGI
Profitability	Profit margin, reported by the firm as after-tax income as a percentage of total revenues in 2001.	Firm Survey
Age	Number of years in operation.	Firm Survey
Size	Number of reported employees in 2002.	Firm Survey
Government Direct Client	Indicator variable taking the value one if the governmnent is a direct client of the firm.	Firm Survey
Tradables	Indicator variable taking the value one if the firm either imports or exports goods or services.	Firm Survey

Table 3: **Variable Description (Cont'd)**

Variable	Description	Source
State-Municipal Disjoint	Indicator variable taking the value one if the municipal government is held by a different party than the state government at the end of 2001.	IFE
State-Congress Disjoint	Indicator variable taking the value one if the state government is held by a different party than the majority of the state legislature at the end of 2001.	IFE
Infrastructure Program	Percentage of the localities in the state that count a federal poverty alleviation program channeling resources to states and municipalities for projects of town and village infrastructure.	SEDESOL
State Support Program	Percentage of the localities in the state that count a federal poverty alleviation program channeling resources to states for projects having to do with public services.	SEDESOL
Youth Program	Percentage of the localities in the state that count a federal poverty alleviation program channeling resources to youth committees for projects of education and entrepreneurship.	SEDESOL
Ethnic Minorities Program	Percentage of the localities in the state that count a federal poverty alleviation program channeling resources to ethnic minorities in poor areas of the country.	SEDESOL
Social Credit Program	Percentage of the localities in the state that count a federal poverty alleviation program channeling resources to committees and civic organizations to provide credit opportunities.	SEDESOL

Table 4: **Summary Statistics**

	Obs	Mean	Std. Dev.	Min	Max
Low Graft	3,175	0.020	0.043	0	0.25
High Graft	3,759	0.033	0.067	0	0.30
Share of Seats	3,985	0.51	0.13	0.13	0.67
Years Left in Office	3,985	4.11	1.45	1	6
Regulation	3,972	0.574	0.142	0	0.86
Industry Concentration (HHI)	3,469	0.071	0.159	0.00	1.00
State Population (in thousands)	3,985	3,271	2,809	424	13,100
State per Capita GDP (in US dollars)	3,985	5,704	3,534	2,374	14,641
Education	3,985	8.395	1.105	4	12
Government Expenditures	3,985	0.03	0.01	0.01	0.06
Federal Transfers	3,985	0.008	0.005	0.003	0.021
Profitability	3,575	0.071	0.075	0	0.30
Age	3,511	19	17	0	122
Size (Employment)	3,922	245	1,119	1	30,000
Government Direct Client	3,985	0.325	0.469	0	1
Tradables	3,985	0.423	0.494	0	1
State-Municipal Disjoint	3,985	0.374	0.484	0	1
State-Congress Disjoint	3,985	0.085	0.278	0	1
Infrastructure Program	3,985	0.003	0.008	0	0.043
State Support Program	3,985	0.012	0.019	0	0.087
Youth Program	3,985	0.007	0.008	0	0.041
Ethnic Minorities Program	3,985	0.001	0.006	0	0.032
Social Credit Program	3,985	0.003	0.005	0	0.027

Table 5: **Politicians' Horizons and Mean Corruption**

The following table shows mean corruption levels by state. The variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Per capita state GDP are shown in 2000 US dollars. Parties are those in power during the majority of time in 2001. T-statistics for the test of differences of means are shown at the bottom. *,**,*** indicates significant at the 10, 5 and 1 percent confidence level, respectively.

	N	Low Graft	N	High Graft	Per Capita GDP	Party
Panel A: Short Horizon (1-2 years left in government)						
B.C.N.	80	0.0160	108	0.0295	7,913	PAN
JALISCO	112	0.0207	146	0.0348	5,866	PAN
MICHOACAN	114	0.0156	128	0.0420	3,127	PRI
Short states' mean	**306**	**0.0176**	**382**	**0.0357**	**5,635**	
Panel B: Medium Horizon (3-4 years left in government)						
AGUASCALIENTES	89	0.0103	109	0.0176	7,512	PAN
CAMPECHE	102	0.0226	117	0.0547	9,751	PRI
CHIHUAHUA	104	0.0221	117	0.0397	8,176	PRI
COLIMA	87	0.0199	109	0.0334	5,583	PRI
DURANGO	82	0.0193	99	0.0176	4,924	PRI
NUEVO LEON	132	0.0150	150	0.0224	10,299	PAN
OAXACA	88	0.0176	104	0.0417	2,532	PRI
PUEBLA	108	0.0269	116	0.0230	4,197	PRI
QUERETARO	125	0.0015	131	0.0024	6,934	PAN
SAN LUIS POTOSI	134	0.0185	142	0.0410	4,069	PRI
SINALOA	108	0.0213	127	0.0198	4,220	PRI
SONORA	100	0.0150	114	0.0184	6,838	PRI
TAMAULIPAS	72	0.0153	107	0.0317	6,260	PRI
TLAXCALA	87	0.0104	100	0.0263	3,271	PRD
VERACRUZ	82	0.0385	90	0.0507	3,297	PRI
ZACATECAS	81	0.0194	115	0.0225	3,089	PRD
Medium states' mean	**1,581**	**0.0180**	**1,847**	**0.0285**	**5,685**	
Panel C: Long Horizon (5-6 years left in government)						
B.C.S.	77	0.0267	97	0.0396	7,754	PRD
CHIAPAS	79	0.0263	111	0.0515	2,374	PAN
COAHUILA	81	0.0115	111	0.0160	7,604	PRI
DISTRITO FEDERAL	141	0.0276	169	0.0404	14,641	PRD
ESTADO DE MEXICO	117	0.0275	139	0.0360	4,316	PRI
GUANAJUATO	122	0.0221	132	0.0252	4,131	PAN
GUERRERO	96	0.0240	111	0.0500	3,264	PRI
HIDALGO	101	0.0301	103	0.0446	3,283	PRI
MORELOS	99	0.0107	119	0.0395	5,184	PAN
NAYARIT	95	0.0147	104	0.0289	3,547	PAN
QUINTANA ROO	103	0.0146	107	0.0547	9,949	PRI
TABASCO	80	0.0401	111	0.0354	3,715	PRI
YUCATAN	97	0.0178	116	0.0205	4,919	PAN
Long state's mean	**1,288**	**0.0226**	**1,530**	**0.0369**	**5,745**	
All states' mean	**3,175**	**0.0198**	**3,759**	**0.0327**	**5,704**	
Panel D: t-stats for differences in means						
Short vs. medium		-0.18		1.98	**	
Short vs. long		-1.80	*	-0.31		
Medium vs. long		-2.82	***	-3.59	***	

Table 6: **Legislative Seats and Mean Corruption**

The following table shows mean corruption levels by state. The variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Share of Seats is the percentage of seats that the incumbent party held in the state legislature in 2001. Per capita state GDP are shown in 2000 US dollars. Parties are those in power during the majority of time in 2001. T-statistics for the test of differences of means are shown at the bottom. *,**,*** indicates significant at the 10, 5 and 1 percent confidence level, respectively.

	N	Low Graft	N	High Graft	Per Capita GDP	Party
Panel A: Low Permanency (Bottom quintile of share of seats)						
B.C.N.	80	0.0160	108	0.0295	7,913	PAN
CHIAPAS	79	0.0263	111	0.0515	2,374	PAN
DISTRITO FEDERAL	141	0.0276	169	0.0404	14,641	PRD
ESTADO DE MEXICO	117	0.0275	139	0.0360	4,316	PRI
QUINTANA ROO	103	0.0146	107	0.0547	9,949	PRI
TLAXCALA	87	0.0104	100	0.0263	3,271	PRD
YUCATAN	97	0.0178	116	0.0205	4,919	PAN
ZACATECAS	81	0.0194	115	0.0225	3,089	PRD
Low states' mean	**785**	**0.0206**	**965**	**0.0354**	**6,309**	
Panel B: Medium Permanency (Medium quintiles of share of seats)						
AGUASCALIENTES	89	0.0103	109	0.0176	7,512	PAN
CAMPECHE	102	0.0226	117	0.0547	9,751	PRI
CHIHUAHUA	104	0.0221	117	0.0397	8,176	PRI
COAHUILA	81	0.0115	111	0.0160	7,604	PRI
COLIMA	87	0.0199	109	0.0334	5,583	PRI
DURANGO	82	0.0193	99	0.0176	4,924	PRI
JALISCO	112	0.0207	146	0.0348	5,866	PAN
MORELOS	99	0.0107	119	0.0395	5,184	PAN
NUEVO LEON	132	0.0150	150	0.0224	10,299	PAN
OAXACA	88	0.0176	104	0.0417	2,532	PRI
QUERETARO	125	0.0015	131	0.0024	6,934	PAN
SAN LUIS POTOSI	134	0.0185	142	0.0410	4,069	PRI
SONORA	100	0.0150	114	0.0184	6,838	PRI
TABASCO	80	0.0401	111	0.0354	3,715	PRI
Medium states' mean	**1,415**	**0.0170**	**1,679**	**0.0296**	**6,356**	
Panel C: High Permanency (Top quintile of share of seats)						
B.C.S.	77	0.0267	97	0.0396	7,754	PRD
GUANAJUATO	122	0.0221	132	0.0252	4,131	PAN
GUERRERO	96	0.0240	111	0.0500	3,264	PRI
HIDALGO	101	0.0301	103	0.0446	3,283	PRI
MICHOACAN	114	0.0156	128	0.0420	3,127	PRI
NAYARIT	95	0.0147	104	0.0289	3,547	PAN
PUEBLA	108	0.0269	116	0.0230	4,197	PRI
SINALOA	108	0.0213	127	0.0198	4,220	PRI
TAMAULIPAS	72	0.0153	107	0.0317	6,260	PRI
VERACRUZ	82	0.0385	90	0.0507	3,297	PRI
High states' mean	**975**	**0.0233**	**1,115**	**0.0348**	**4,308**	
All states' mean	**3,175**	**0.0198**	**3,759**	**0.0327**	**5,704**	
Panel D: t-stats for differences in means						
Low vs. medium		1.96	*	2.14	**	
Low vs. high		-1.25		0.21		
Medium vs. high		-3.65	***	-2.00	**	

Table 7: **Politicians' Horizon and Magnitude of Corruption (OLS)**

The following table shows the impact of the number of years in office on the level of corruption. The dependent variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Years left in Office is the number of years that the incumbent has left in office. Regulation is the answer to the survey question: "In your interactions with government institutions at the federal level, how would you rate the amount of regulations." This variable is aggregated at the state-industry level. Industry concentration is the Herfindahl Hirschman index, calculated at the state-industry level. For a description of all other variables see table 1. Robust standard errors clustered by the state and industry in parenthesis. *,**,*** indicates significance at the 10, 5 and 1 percent confidence level, respectively.

Dependent Variable	Low Graft OLS (1)	Low Graft OLS (2)	High Graft OLS (3)	High Graft OLS (4)
Politician's Horizon				
Years Left in Office	-0.0012	-0.0022	-0.0066 **	-0.0193 ***
	(0.0023)	(0.0042)	(0.0033)	(0.0051)
(Years Left in Office)^2	0.0004	0.0005	0.0010 **	0.0027 ***
	(0.0003)	(0.0006)	(0.0004)	(0.0008)
Industrial Organization				
Regulation		0.0158 **		0.0054
		(0.0060)		(0.0093)
Industry Concentration		-0.0109		-0.0474 **
		(0.0086)		(0.0181)
(Industry Concentration) ×		0.0003		0.0132 **
(Years Left in Office)		(0.0023)		(0.0058)
State Controls				
Log of Population		0.0012		-0.0013
		(0.0018)		(0.0023)
Log of Per Capita GDP		-0.0037		0.0030
		(0.0041)		(0.0073)
Education		0.0005		0.0026 *
		(0.0009)		(0.0015)
Government Expenditures		0.1975		-0.5280 *
		(0.1828)		(0.2785)
Federal Transfers		-0.3968		1.3995 **
		(0.4496)		(0.7229)
Firm Controls				
Profitability		0.0423 ***		0.0231
		(0.0137)		(0.0170)
Age		-0.0001 *		-0.0002 *
		(0.0001)		(0.0001)
Size		-0.0011 *		-0.0004
		(0.0007)		(0.0011)
Government Direct Client		0.0075 ***		0.0046 *
		(0.0022)		(0.0028)
Tradables		0.0013		0.0008
		(0.0024)		(0.0029)
Industry Dummies	NO	YES	NO	YES
Party Dummies	NO	YES	NO	YES
Turning point (in years)	1.55	2.06	3.18	3.54
Sample Size	3,175	2,508	3,759	2,980
Adj - R^2	0.0033	0.0531	0.0015	0.0661

Table 8: **Politicians' Horizon and Magnitude of Corruption (Tobit)**

The following table shows the impact of the number of years in office on the level of corruption. The dependent variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Years left in Office is the number of years that the incumbent has left in office. Regulation is the answer to the survey question: "In your interactions with government institutions at the federal level, how would you rate the amount of regulations." This variable is aggregated at the state-industry level. Industry concentration is the Herfindahl Hirschman index, calculated at the state-industry level. For a description of all other variables see table 1. Robust standard errors clustered by the state and industry in parenthesis. *,**,*** indicates significance at the 10, 5 and 1 percent confidence level, respectively.

Dependent Variable	Low Graft Tobit (1)		Low Graft Tobit (2)		High Graft Tobit (3)		High Graft Tobit (4)	
Politician's Horizon								
Years Left in Office	-0.0034		-0.0080		-0.0198	***	-0.0554	***
	(0.0040)		(0.0056)		(0.0076)		(0.0111)	
(Years Left in Office)^2	0.0009	*	0.0014	*	0.0032	**	0.0079	***
	(0.0005)		(0.0008)		(0.0010)		(0.0015)	
Industrial Organization								
Regulation			0.0321	***			0.0097	
			(0.0104)				(0.0208)	
Industry Concentration			-0.0657	**			-0.1428	**
			(0.0310)				(0.0603)	
(Industry Concentration) × (Years Left in Office)			0.0106				0.0309	**
			(0.0071)				(0.0138)	
State Controls								
Log of Population			0.0039	*			-0.0018	
			(0.0021)				(0.0043)	
Log of Per Capita GDP			-0.0092				0.0064	
			(0.0063)				(0.0125)	
Education			0.0008				0.0067	**
			(0.0015)				(0.0030)	
Government Expenditures			0.1258				-1.6003	***
			(0.2640)				(0.5193)	
Federal Transfers			-0.5030				4.5373	***
			(0.6835)				(1.3550)	
Firm Controls								
Profitability			0.0810	***			0.0995	**
			(0.0190)				(0.0387)	
Age			-0.0003	***			-0.0004	**
			(0.0001)				(0.0002)	
Size			-0.0003				0.0014	
			(0.0011)				(0.0022)	
Government Direct Client			0.0134	***			0.0165	**
			(0.0032)				(0.0064)	
Tradables			0.0049				0.0025	
			(0.0032)				(0.0065)	
Industry Dummies	NO		YES		NO		YES	
Party Dummies	NO		YES		NO		YES	
Turning point (in years)	1.88		2.91		3.13		3.51	
Sample Size	3,175		2,508		3,759		2,980	
Pseudo - R^2	0.0070		0.1080		0.0157		0.1844	
Log-likelihood	1,167.55		1,029.78		-432.94		-304.26	

Table 9: **Politicians' Term Years and Corruption (OLS)**

The following table shows the impact of the number of years in office on the level of corruption. The dependent variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Year 1-Year 6 are the year in office of the incumbent executive. Regulation is the answer to the survey question: "In your interactions with government institutions at the federal level, how would you rate the amount of regulations." This variable is aggregated at the state-industry level. Industry concentration is the Herfindahl Hirschman index, calculated at the state-industry level. Firm and State Controls are the controls used in table 4. Robust standard errors clustered by the state and industry in parenthesis. *,**,*** indicates significance at the 10, 5 and 1 percent confidence level, respectively.

Dependent Variable	Low Graft OLS (1)	Low Graft OLS (2)	Low Graft OLS (3)	High Graft OLS (4)	High Graft OLS (5)	High Graft OLS (6)
Politician's Horizon						
Year 1	0.0044	0.0037	0.0017	0.0078	0.0104 *	0.0041
	(0.0040)	(0.0036)	(0.0043)	(0.0058)	(0.0058)	(0.0057)
Year 3	-0.0006		-0.0032	-0.0063 *		-0.0099 **
	(0.0025)		(0.0030)	(0.0034)		(0.0043)
Year 4		-0.0044 *	-0.0061 *		-0.0030	-0.0085
		(0.0026)	(0.0031)		(0.0046)	(0.0056)
Year 6	-0.0015	-0.0028	-0.0049	0.0126 ***	0.0143 ***	0.0079
	(0.0043)	(0.0041)	(0.0044)	(0.0047)	(0.0047)	(0.0052)
Industrial Organization						
Regulation	0.0157 **	0.0154 **	0.0157 **	0.0060	0.0051	0.0060
	(0.0061)	(0.0061)	(0.0061)	(0.0092)	(0.0092)	(0.0092)
Industry Concentration	-0.0149	-0.0129	-0.0112	-0.0521 ***	-0.0521 ***	-0.0471 ***
	(0.0092)	(0.0087)	(0.0085)	(0.0194)	(0.0190)	(0.0179)
(Industry Concentration) × (Years Left in Office)	0.0015	0.0007	0.0004	0.0150 **	0.0143 **	0.0135 **
	(0.0023)	(0.0023)	(0.0022)	(0.0058)	(0.0059)	(0.0057)
Firm Controls	YES	YES	YES	YES	YES	YES
State Controls	YES	YES	YES	YES	YES	YES
Industry Dummies	YES	YES	YES	YES	YES	YES
Party Dummies	YES	YES	YES	YES	YES	YES
Sample Size	2,508	2,508	2,508	2,980	2,980	2,980
Adj - R^2	0.0516	0.0528	0.0534	0.0293	0.0283	0.0306

Table 10: **Politicians' Term Years and Corruption (Tobit and Probit)**

The following table shows the impact of the number of years in office on the level of corruption. The dependent variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Year 1-Year 6 are the year in office of the incumbent executive. Regulation is the answer to the survey question: "In your interactions with government institutions at the federal level, how would you rate the amount of regulations." This variable is aggregated at the state-industry level. Industry concentration is the Herfindahl Hirschman index, calculated at the state-industry level. Firm and State Controls are the controls used in table 4. Robust standard errors clustered by the state and industry in parenthesis. *,**,*** indicates significance at the 10, 5 and 1 percent confidence level, respectively.

Dependent Variable	High Graft Tobit (1)	High Graft Tobit (2)	High Graft Tobit (3)	High Graft Probit (4)	High Graft Probit (5)	High Graft Probit (6)
Politician's Horizon						
Year 1	0.0177	0.0258 ***	0.0055	0.0533	0.0768 *	0.0052
	(0.0117)	(0.0113)	(0.0124)	(0.0401)	(0.0398)	(0.0335)
Year 3	-0.0219 ***		-0.0334 ***	-0.0675 ***		-0.1121 ***
	(0.0077)		(0.0087)	(0.0242)		(0.0295)
Year 4		-0.0118	-0.0296 ***		-0.0494	-0.1097 ***
		(0.0090)	(0.0101)		(0.0331)	(0.0398)
Year 6	0.0324 ***	0.0377 ***	0.0171	0.1072 ***	0.1195 ***	0.0451
	(0.0115)	(0.0114)	(0.0126)	(0.0381)	(0.0358)	(0.0378)
Industrial Organization						
Regulation	0.0112	0.0082	0.0119	-0.0090	-0.0197	-0.0098
	(0.0209)	(0.0209)	(0.0209)	(0.0637)	(0.0650)	(0.0639)
Industry Concentration	-0.1622 ***	-0.1627 ***	-0.1410 **	-0.4330 ***	-0.4232 ***	-0.3521 ***
	(0.0605)	(0.0607)	(0.0602)	(0.1394)	(0.1326)	(0.1273)
(Industry Concentration) × (Years Left in Office)	0.0376 ***	0.0356 **	0.0319 **	0.0907 ***	0.0798 ***	0.0687 **
	(0.0138)	(0.0139)	(0.0138)	(0.0348)	(0.0347)	(0.0342)
Firm Controls	YES	YES	YES	YES	YES	YES
State Controls	YES	YES	YES	YES	YES	YES
Industry Dummies	YES	YES	YES	YES	YES	YES
Party Dummies	YES	YES	YES	YES	YES	YES
Sample Size	2,980	2,980	2,980	2,980	2,980	2,980
Pseudo - R^2	0.1811	0.1727	0.1927	0.0392	0.0366	0.0408
Log-likelihood	-305.46	-308.62	-301.14	-2,019.71	-2,022.14	-2,013.30

Table 11: **Political Organization and Industrial Structure**

The following table shows the impact of the number of years in office on the level of corruption. The dependent variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Years left in Office is the number of years that the incumbent has left in office. Year 1-Year 6 are the year in office of the incumbent executive. Regulation is the answer to the survey question: "In your interactions with government institutions at the federal level, how would you rate the amount of regulations." This variable is aggregated at the state-industry level. Industry concentration is the Herfindahl Hirschman index, calculated at the state-industry level. Firm and State Controls are the controls used in table 4. Robust standard errors clustered by the state and industry in parenthesis. *,**,*** indicates significance at the 10, 5 and 1 percent confidence level, respectively.

Dependent Variable	High Graft		High Graft		High Graft		High Graft		High Graft		High Graft	
Sample	First 3 years		Last 3 years		All		All		All		All	
	(1)		(2)		(3)		(4)		(5)		(6)	
Years left in Office	-0.0069	**	0.0078	*	-0.0162	**	-0.0185	***	-0.0185	***	-0.0187	**
	(0.0033)		(0.0041)		(0.0064)		(0.0060)		(0.0060)		(0.0082)	
(Years left in Office)^2					0.0023	***	0.0026	***	0.0027	***	0.0026	*
					(0.0008)		(0.0008)		(0.0008)		(0.0014)	
Industry Concentration	0.0933	**	-0.1207	*					0.0244	*	0.0241	*
	(0.0415)		(0.0671)						(0.0135)		(0.0137)	
Years left in Office× Industry Concentration	-0.0218	*	0.0091									
	(0.0131)		(0.0121)									
Years 1 and 2 Dummy× Industry Concentration					0.0537	***						
					(0.0267)							
Years 3 and 4 Dummy× Industry Concentration					-0.0024							
					(0.0129)							
Years 5 and 6 Dummy× Industry Concentration					-0.0221							
					(0.0222)							
First 3 Years Dummy× Industry Concentration							0.0240	*				
							(0.0136)					
Last 3 Years Dummy× Industry Concentration							-0.0287		-0.0539	***	-0.0514	***
							(0.0180)		(0.0180)		(0.0182)	
Last 3 Years Dummy× Competitive Industry									-9.0681			
									(10.6410)			
Judicial Efficiency Index											-0.0006	
											(0.0006)	
Years 5 and 6 Dummy× Judicial Efficiency Index											0.0000	
											(0.0008)	
Firm Controls	YES		YES		YES		YES		YES		YES	
State Controls	YES		YES		YES		YES		YES		YES	
Industry Dummies	YES		YES		YES		YES		YES		YES	
Party Dummies	YES		YES		YES		YES		YES		YES	
Sample Size	2,009		971		2,980		2,980		2,980		2,980	
R^2	0.0723		0.1341		0.0669		0.0664		0.0667		0.0669	

Table 12: **Legislative Seats and Magnitude of Corruption**

The following table shows the impact of the share of congressional seats that the incumbent party holds on the level of corruption. The dependent variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Share of Seats is the percentage of seats that the incumbent party held in the state legislature in 2001. Regulation is the answer to the survey question: "In your interactions with government institutions at the federal level, how would you rate the amount of regulations." This variable is aggregated at the state-industry level. Industry concentration is the Herfindahl Hirschman index, calculated at the state-industry level. For a description of all other variables see table 1. Robust standard errors clustered by the state and industry in parenthesis. *,**,*** indicates significance at the 10, 5 and 1 percent confidence level, respectively.

Dependent Variable	Low Graft		Low Graft		High Graft		High Graft	
Estimation Method	OLS		OLS		OLS		OLS	
	(1)		(2)		(4)		(5)	
Political Organization								
Share of Seats	-0.0701	**	-0.0155		-0.1004	**	-0.2361	***
	(0.0347)		(0.0559)		(0.0486)		(0.0841)	
(Share of Seats)^2	0.0852	**	0.0343		0.1089	**	0.2439	***
	(0.0391)		(0.0608)		(0.0554)		(0.0884)	
Industrial Organization								
Regulation			0.0123	*			0.0118	
			(0.0064)				(0.0089)	
Industry Concentration			0.0006				0.0161	
			(0.0069)				(0.0141)	
Industry Concentration×			-0.0074				-0.0264	
Minority Dummy			(0.0212)				(0.0281)	
State Controls								
Log of Population			0.0027				0.0005	
			(0.0016)				(0.0024)	
Log of Per Capita GDP			-0.0075	*			0.0098	
			(0.0060)				(0.0093)	
Education			0.0005				0.0014	
			(0.0009)				(0.0014)	
Government Expenditures			0.3849	**			0.0755	
			(0.1868)				(0.1897)	
Federal Transfers			-0.9003	*			1.1267	
			(0.5275)				(0.7269)	
Firm Controls								
Profitability			0.0404	***			0.0241	
			(0.0139)				(0.0173)	
Age			-0.0001	*			-0.0002	**
			(0.0001)				(0.0001)	
Size			-0.0012				-0.0001	
			(0.0008)				(0.0010)	
Government Direct Client			0.0072	***			0.0045	
			(0.0025)				(0.0029)	
Tradables			0.0018				0.0027	
			(0.0025)				(0.0029)	
Industry Dummies	NO		YES		NO		YES	
Party Dummies	NO		YES		NO		YES	
Sample Size	3,175		2,508		3,759		2,980	
R^2	0.0016		0.0736		0.0012		0.0621	

Table 13: **Instrumenting for Hold on Power**

The following table shows two-stage least squares regressions of political contestability on the level of corruption. The dependent variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Share of Seats is the percentage of seats that the incumbent party held in the state legislature in 2001. Regulation is the answer to the survey question: "In your interactions with government institutions at the federal level, how would you rate the amount of regulations." This variable is aggregated at the state-industry level. Industry concentration is the Herfindahl Hirschman index, calculated at the state-industry level. For a description of all other variables see table 1. Firm and State Controls are the controls used in table 4. Robust standard errors clustered by state and industry in parenthesis. *,**,*** indicates significant at the 10, 5 and 1 percent confidence level, respectively.

Panel A: 2SLS				
Dependent Variable	Low Graft		High Graft	
	(1)		(2)	
Political Organization				
Share of Seats	-0.0544		-0.2715	***
	(0.0919)		(0.0977)	
(Share of Seats)^2	0.0828		0.2600	**
	(0.1189)		(0.1211)	
Industrial Organization				
Regulation	0.0121	*	0.0126	
	(0.0063)		(0.0089)	
Industry Concentration	0.0003		0.0159	
	(0.0067)		(0.0140)	
Industry Concentration×	-0.0087		-0.0340	
Minority Dummy	(0.0219)		(0.0298)	
R^2	0.0723		0.0613	

Panel B: First Stage				
Dependent Variable	Share of Seats		Share of Seats	
	(1)		(2)	
Infrastructure Program	-4.2304	***	-4.2210	***
	(0.2351)		(0.2138)	
State Support Program	-1.2803	***	-1.3574	***
	(0.1288)		(0.1159)	
Youth Program	-0.5766	*	-0.5323	*
	(0.3005)		(0.2723)	
Ethnic Minorities Program	-10.3683	***	-10.2658	***
	(0.3731)		(0.3244)	
Sample Size	2,508		2,980	
F	34.70		46.04	
Prob > F	0.0000		0.0000	
R^2	0.6209		0.6448	

Table 14: **Political Organization and Corruption – Horse Race**

The following table shows the impact of political contestability on the level of bribes paid by firms. The dependent variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Share of Seats is the percentage of seats that the incumbent party held in the state legislature in 2001. Years left in Office is the number of years that the incumbent has left in office. Regulation is the answer to the survey question: "In your interactions with government institutions at the federal level, how would you rate the amount of regulations." This variable is aggregated at the state-industry level. Industry concentration is the Herfindahl Hirschman index, calculated at the state-industry level. All variables are standardized to have mean zero and standard deviation one. Firm and State Controls are the controls used in table 4. Robust standard errors clustered by the state and industry in parenthesis. *,**,*** indicates significant at the 10, 5 and 1 percent confidence level, respectively.

Dependent Variable	Low Graft (1)		Low Graft (2)		High Graft (3)		High Graft (4)	
Political Organization								
Share of Seats	-0.0062		0.0060		-0.0142	**	-0.0272	**
	(0.0044)		(0.0087)		(0.0065)		(0.0111)	
(Share of Seats)^2	0.0062		-0.0037		0.0121	*	0.0247	**
	(0.0046)		(0.0083)		(0.0068)		(0.0106)	
Years left in Office	-0.0125	***	-0.0085		-0.0199	***	-0.0227	***
	(0.0045)		(0.0062)		(0.0051)		(0.0087)	
(Years left in Office)^2	0.0102	**	0.0059		0.0193	***	0.0234	***
	(0.0044)		(0.0059)		(0.0048)		(0.0078)	
Industrial Organization								
Regulation			0.0019	**			0.0011	
			(0.0009)				(0.0012)	
Industry Concentration			0.0002				0.0039	*
			(0.0010)				(0.0020)	
Industry Concentration×			0.0000				-0.0011	
Minority Dummy			(0.0009)				(0.0013)	
Industry Concentration×			-0.0008				-0.0051	***
Short Horizon Dummy			(0.0008)				(0.0016)	
Firm Controls	NO		YES		NO		YES	
State Controls	NO		YES		NO		YES	
Industry Dummies	NO		YES		NO		YES	
Party Dummies	NO		YES		NO		YES	
Sample Size	3,175		2,508		3,759		2,980	
R^2	0.0115		0.0769		0.0104		0.0686	

Table 15: **Political Organization and Corruption – Horse Race (2)**

The following table shows the impact of political contestability on the level of bribes paid by firms. The dependent variables are Low Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to low-level public officials?" and High Graft, which is the answer to the survey question: "On average, what percentage of total yearly revenues of firms similar to yours is devoted to extra-official payments made to high-level public officials in order to influence the content of new laws, policies, and regulations?" Share of Seats is the percentage of seats that the incumbent party held in the state legislature in 2001. Year 1-Year 6 are the year in office of the incumbent executive. Regulation is the answer to the survey question: "In your interactions with government institutions at the federal level, how would you rate the amount of regulations." This variable is aggregated at the state-industry level. Industry concentration is the Herfindahl Hirschman index, calculated at the state-industry level. All variables are standardized to have mean zero and standard deviation one. Firm and State Controls are the controls used in table 4. Robust standard errors clustered by the state and industry in parenthesis. *,**,*** indicates significant at the 10, 5 and 1 percent confidence level, respectively.

Dependent Variable	Low Graft (1)		Low Graft (2)		High Graft (3)		High Graft (4)	
Political Organization								
Share of Seats	-0.0072	*	0.0050		-0.0211	***	-0.0326	***
	(0.0042)		(0.0082)		(0.0062)		(0.0110)	
(Share of Seats)^2	0.0074	*	-0.0022		0.0188	***	0.0300	***
	(0.0044)		(0.0076)		(0.0064)		(0.0103)	
Year 1	0.0038	***	0.0025		0.0018		0.0006	
	(0.0014)		(0.0019)		(0.0016)		(0.0022)	
Year 3	0.0004		-0.0004		-0.0038	**	-0.0037	**
	(0.0011)		(0.0011)		(0.0015)		(0.0016)	
Year 6	0.0006		-0.0005		0.0022	*	0.0034	**
	(0.0011)		(0.0013)		(0.0013)		(0.0014)	
Industrial Organization								
Regulation			0.0018	**			0.0013	
			(0.0009)				(0.0012)	
Industry Concentration			0.0004				0.0049	**
			(0.0009)				(0.0019)	
Industry Concentration× Minority Dummy			0.0000				-0.0017	
			(0.0008)				(0.0012)	
Industry Concentration× Short Horizon Dummy			-0.0012				-0.0061	***
			(0.0009)				(0.0016)	
Firm Controls	NO		YES		NO		YES	
State Controls	NO		YES		NO		YES	
Industry Dummies	NO		YES		NO		YES	
Party Dummies	NO		YES		NO		YES	
Sample Size	3,175		2,508		3,759		2,980	
R^2	0.0106		0.0760		0.0109		0.0693	

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