DISCUSSION PAPER SERIES

No. 6962

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PUBLIC POLICY

Centre for Economic Policy Research

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ISSN 0265-8003

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Discussion Paper No. 6962
September 2008

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ABSTRACT

Lobbying, Corruption and Other Banes*

Although the theoretical literature often uses lobbying and corruption synonymously, the empirical literature associates lobbying with the preferred mean for exerting influence in developed countries and corruption with the preferred one in developing countries. This paper challenges these views. Based on whether influence is sought with rule-makers or rule-enforcers, we develop a conceptual framework that highlights how political institutions are instrumental in defining the choice between bribing and lobbying. We test our predictions using survey data for about 6000 firms in 26 countries. Our results suggest that (a) lobbying and corruption are fundamentally different, (b) political institutions play a major role in explaining whether firms choose bribing or lobbying, (c) lobbying is more effective than corruption as an instrument for political influence, and (d) lobbying is more powerful than corruption as an explanatory factor for enterprise growth, even in poorer, often perceived as highly corrupt, less developed countries.

JEL Classification: D72, E23, H26, O17 and P16
Keywords: corruption, lobbying and political institutions.

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* We thank seminar participants at BOFIT (Helsinki) and Ausschuss für Entwicklungsländer (Zurich) for valuable comments on a previous version. We also would like to thank Branko Milanovic and Torsten Persson for kindly sharing their data with us. The usual disclaimer applies.

Submitted 09 September 2008

1. Introduction

Lobbying and corruption are some of the most studied phenomena in economics and political science, yet these literatures have struggled to resolve some fundamental questions. It is clear that both lobbying and corruption have the objective of influencing public officials. What is still less clear is in exactly what the two phenomena differ, or are similar, and how they interact with each other. This paper tries to answer the following questions that still remain very much unexplored in the theoretical and empirical literatures: (a) what are the differences between lobbying and corruption? (b) Given these differences exist, what are the political and economic factors that determine the likelihood of a firm choosing to participate in lobbying vis-à-vis corruption? (c) What is the relative role of corruption and lobbying in explaining political influence? And (d) what is the relative role of corruption and lobbying in generating economic pay-offs, across firms and countries?

Answers to the first two questions remain elusive. A seminal model of lobbying, Grossman and Helpman (1994), treats lobbying as the transfer of resources from lobbyists to politicians, but these transfers could equally be interpreted as campaign contributions or even as bribes. Indeed, Coate and Morris (1999) or Yalcin and Damania (2005) are but two examples of the latter interpretation.[1] Further, even when theoretical models explicitly assume that donations from interest groups are going to be used as campaign contributions, as in Baron (1994) or Grossman and Helpman (1996), what is it that makes this lobbying and not corruption? Empirical work in both political science and economics seems to be more aware of the issue but it tends to distinguish the two phenomena solely on the basis of the

[1] See Mitchell and Munger (1991), Austen-Smith (1997), Drazen (2000), Persson and Tabellini (2000), Grossman and Helpman (2001), Lowery and Gray (2004) for surveys of the extensive theoretical work on lobbying. As mentioned, the differences between lobbying and corruption have received little attention in the theoretical literature but two exceptions are Bennedsen and Feldmann (2006) and Dahm and Porteiro (2006), who compare the choice of lobbying with monetary payments or bribing to the choice of strategic provision of information to politicians.

chosen means of influence (corruption is associated with bribes while campaign contributions or information are associated with lobbying).[2]

This paper takes the distinction between corruption and lobbying seriously but also challenges the view that the means used to exert influence is the main distinction between them. We suggest that a more interesting distinction has to do with who is being influenced and, as a consequence, with which political institutions are in place supporting this choice. In particular, we first define lobbying as all those practices that seek to influence policy-makers, such as politicians or regulators, while corruption is directed at influencing policy-enforcers, typically members of the bureaucracy. This is, of course, not the only way one should distinguish between lobbying and corruption, but it is an important one and one that has not been pursued far enough before.[3]

We claim this way of differentiating between lobbying and corruption is fruitful because it also allows the study of the interaction between the two. Harstad and Svensson (2008) argue that if we identify corruption with the process of influencing bureaucrats and lobbying with the process of influencing politicians, the two phenomena are substitutes. This is because successful lobbying of a politician will render bribing the bureaucrat redundant. Also, by pointing out that lobbying is a more expensive but more "permanent" form of influence, Harstad and Svensson argue that lobbying should be more prevalent at higher levels of development. Campos and Giovannoni (2007) present supporting evidence for the latter claim but fail to pin down the differentiating factors for lobbying vis-à-vis corruption.

In this paper, we try to expand upon this small, related literature in several ways. One

[2] Potters and Sloof (1996) survey the empirical literature on lobbying. Treisman (2007), Bardhan (1997), Aidt (2003) and Svensson (2005) survey the work on corruption.

[3] Moreover, corruption and lobbying are not the only ways of obtaining influence. Faccio (2006) shows how, particularly, in developing countries, firms can obtain political influence by having direct relationships with politicians (i.e. when top executives or shareholders are politicians).

is to put together a conceptual framework which, acknowledging that the question of whether lobbying and corruption are substitutes or complements is an important one, tries to go beyond this by arguing that political institutions are crucial in governing this distinction. Here we examine three main sets of political institutions: democracy and political stability, forms of government (e.g. presidential versus parliamentary system), and electoral rules. Because existing theoretical work tends to focus on each of these institutions separately, solving for a dynamic game-theoretic equilibrium of influence behavior encompassing this full set of institutions is beyond the scope of this paper. Instead, we present a conceptual framework and an attendant empirical investigation of which and how political institutions affect both corruption and lobbying, drawing heavily from each one of these literatures (that is, on electoral rules, forms of government and democracy and stability). Our identification strategy combines natural experiments and structural approaches.[4] On the former, we focus on the choice of a specific set of countries, the transition economies of Eastern Europe and former Soviet Union, because they provide a unique natural experiment situation. All these countries started out in 1989 with equal (or as similar as we will ever encounter) levels of political and of economic development. The variation in the type and intensity of political influence in early 1989 across these countries is minimal and the same can be said of their economic liberalization (Campos and Coricelli, 2002). Since 1989, they have followed radically different economic and political trajectories which generate the variation we here also exploit for identification. Finally, in addition to examining whether or not lobbying and corruption differ and, if so, which and how political institutions are crucial in this differentiation, we

[4] For example, our estimates of the impact electoral rules on corruption were obtained using the theoretical model and econometric specification proposed in Persson et al. (2003), and we tried to follow a similar approach for forms of government and democracy and stability. Yet, notice that in the case of Persson et al. (2003), the theory concerns the effects of electoral rules on *corruption*, not on lobbying. We thus treat lobbying and corruption as means of influence and potentially governed by a similar set of determinants. We expand on this issue in section 3 below.

also study their differential impacts in terms of both political and economic pay-offs. We investigate the relative importance of lobbying and corruption vis-à-vis the production of political influence as well as vis-à-vis enterprise performance. We are unaware of similar exercises being carried out so far.

Using 2002 survey data for about 6000 firms in 26 countries, our results suggest that lobbying and corruption are indeed fundamentally different and that political institutions play a central role in explaining these differences. We find that the enterprises that are more likely to engage in lobbying are those that are older, larger, and foreign-owned. Taking these characteristics into account, we also find that firms that favor lobbying tend to be in countries that are less politically unstable, more democratic, with a more independent media, and which have experienced more political leadership alternations. Moreover, they are also more likely to be located in federal states, with presidential systems and, within presidential systems, where the president has fewer (de jure and de facto) powers. Within parliamentary systems, lobbying seems to be more effective where there are more constraints on the executive. We also find that lobbying is more effective where the electoral system features closed lists and smaller electoral districts. Crucially, the significant determinants we find for corruption are essentially the same but with all carrying opposite signs. Finally, we also find that lobbying is a much more effective instrument for political influence than corruption and that lobbying is also a much stronger explanatory factor for firm performance than corruption, even in poorer, often perceived as highly corrupt, less developed countries.

The paper is organized as follows. In section two, we articulate the theoretical underpinnings of our empirical analysis. In section three, we describe the data and our empirical methodology while in section four we discuss our econometric results. Section five concludes.

2. How Political Institutions Determine the Choice between Lobbying and Corruption

Corruption and lobbying are, at the most fundamental level, ways of influencing public officials. While these two phenomena are normally treated in political science and economics as distinct phenomena, with mostly distinct literatures, there is still confusion and uncertainty about what their differences, if any, really are.

One potential distinction is whether or not money changes hands. This distinction can be meaningful because in many cases lobbying is not about the exchange of money and favors, but it is about the provision of information (Truman, 1951). Austen-Smith and Wright (1994), for example, show how lobbying can be the provision of policy-relevant information to politicians. Similarly, Grossman and Helpman (1999) show how endorsements can effectively influence the policy-making process. Yet, much of the lobbying literature also focuses on the provision of monetary payments to politicians.[5] In some political systems, notably the US, these payments may be perfectly legal and considered to be lobbying, while in other political systems, the same exact payments would be considered illegal and be identified as corruption.

In this paper, we introduce a clear distinction between lobbying and corruption that focuses not on the means through which influence is gained, but on who is the target (or, to put differently, who the prevalent political institutions allow to be the target.) In particular we distinguish between the case where influence is sought with those that make rules (lobbying) and the case where it is sought with those who execute them (corruption). This distinction is pursued in a recent theoretical paper by Harstad and Svensson (2008) who emphasize that it is easier for those who make rules to commit not to reverse their decisions than it is for those who execute those rules. For example, a tax inspector who takes a bribe to look the other way

[5] Grossman and Helpman (1994) and Baron (1994) are two influential examples. As noted, in these cases lobbying takes the form of monetary payments that are interpreted as campaign contributions but the payments could equally be interpreted as bribes.

cannot credibly commit not to ask for another bribe at the next available opportunity while politicians or regulators who are persuaded to change the tax rules would find it more difficult to reverse their decisions and so can assure the lobbyist that their decisions are likely to last for some time. Harstad and Svensson's model shows that since lobbying is more reliable but also more expensive than corruption, firms with lower capital levels will be more likely to rely on the latter. The other side of their argument is that, as firms grow and accumulate capital, bureaucrats will be able to ask for larger bribes, as the stakes for firms increase. At some point, the cost of corruption will be so high that firms will switch to lobbying. This process has several consequences which provide testable empirical predictions, some of which we tackle in this paper. The first is that as capital intensity in a given political system increases, lobbying tends to replace corruption. A second is that since rule makers in more stable systems will find it easier to commit to policies, lobbying should be relatively more successful in politically stable systems. We discuss these below in detail.

One of the missing features in the Harstad and Svensson framework, however, is that there is no discussion of how lobbying and corruption might be influenced by the underlying characteristics of the political system.[6] There is, by now, an extensive literature on this, both at the theoretical and empirical level, but again it is important to clarify what is meant by lobbying and corruption in each case. The biggest problem is that corruption is often defined irrespectively of whether it implicates rule makers or rule enforcers. Indeed, Treisman (2007), who surveys the empirical results with regard to the relationship between political institutions and corruption, points out that the measures of corruption used (country-levels perception of corruption) can include both what we define corruption but also what we define

[6] To be fair, this is not a specific criticism of Harstad and Svensson (2008), but a crucial deficiency of the literature as a whole and one we try to address in this paper.

as lobbying.[7] The implication is that in many cases these previous studies cannot really address the question of whether political institutions matter for lobbying and corruption.

It seems natural to imagine that political institutions have a particularly important effect on whatever definition of lobbying one has in mind but what about corruption? It is easy to see that if the distinction between lobbying and corruption is based on the means through which influence is obtained, then the distinction between corruption at the political level and the corruption of bureaucrats is blurred. This is a crucial reason why country-level perception of corruption indexes prove to be so poorly correlated with more objective measures where firms are asked to report on the size of typical bribes.[8] A second consideration is that with a distinction between lobbying and corruption based on the means of influence, it is not clear what different impact different political institutions might have. If, on the other hand, the distinction between lobbying and corruption is based on the level at which either phenomenon occurs, then, conditional on whether corruption and lobbying are substitutes or complements, one can make predictions on the impact of certain features of political institutions on corruption if one can make predictions on the impact on lobbying. More specifically, given that the theory in Harstad and Svensson (2008) and the evidence in Campos and Giovannoni (2007) both suggest that lobbying and corruption are substitutes, we discuss below what potential impacts political institutions might have on lobbying, with this often implying the opposite prediction for corruption.[9]

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[7] In particular, Treisman (2007) distinguishes between "petty" and "grand" corruption. We believe our distinction between influence directed at rule enforcers (corruption) and influence directed at rule makers (lobbying) correlates well with this distinction.

[8] See also Svensson (2005) on this point.

[9] Ultimately, the question of whether corruption and lobbying are substitutes or complements is an empirical one (and one we address in section 4 below.) We bring this distinction up front simply for clarity of exposition.

2.1 Democratization

One of the most important questions in the literatures that link lobbying and corruption with political institutions is whether the strength of the institutions themselves impacts on lobbying or corruption. In other words, how do the strengths and weaknesses of the democratic process interact with lobbying and corruption? At first, the answer to this question seems to be straightforward: stronger democracies have stronger checks and balances, voters are better able to monitor what happens at the political level, respect for the rule of law is more widespread and so democratization should help reduce both lobbying and corruption. It is easy to see, however, there must be some caveats to this simple statement. In particular, one can make the argument that in the initial phase of democratization, corruption might be encouraged because more democracy usually means less law enforcement effectiveness. Also, democracy might bring new forms of corruption, such as vote buying, which would be rather unnecessary in a more autocratic regime. More generally, many have argued (Treisman 2007, Montinola and Jackman 2002 and Sung 2004 are just three examples) that the relationship between democratization and corruption may be non-linear. To complicate matters further, the issue of what type of corruption is really intended must be taken into account. With the distinction between lobbying and corruption as defined in this paper, it is clear that these arguments tend to have more relevance for lobbying rather than corruption. Democratization is more likely to have an impact on lobbying because this is the phenomenon where the relationship between firms and politicians is direct and more sensitive to democratic institutions: bureaucrats are only very partially accountable even in the most developed democracies, while the difference between accountable and unaccountable politicians has an enormous impact on their willingness and ability to receive rents from firms.

Another democracy-related variable of interest here is whether the country has a more

or less independent media. Theoretical work (Besley and Prat 2006) has emphasized the effect of an independent media on the level of political corruption. Empirical work (e.g. Brunetti and Weder 2003) finds evidence of that relationship. As usual however, the country-level measures of corruption used so far do not capture the distinction between lobbying and corruption proposed in our paper. In light of this distinction, we expect an independent media to have a stronger negative effect on lobbying than on corruption.

2.2 Political Alternation

It is clear that many of the issues that apply to the interaction between democratization and lobbying/corruption also apply to the notion of the stability of the political system itself (Olson, 1965). There is, however, a separate notion of political stability and that has to do with how much alternation there is in the system. As pointed out above with reference to the Harstad and Svensson (2008) framework, lobbying gains effectiveness whenever there is less alternation because then legislative commitments taken by ruling politicians are more reliable. Della Porta (2004) makes the point that in a system where party identification amongst voters is low, political corruption will tend to be higher. If we put these two observations together, we might identify two opposing effects: a political system where ideologies don't matter very much is inherently more favorable to lobbying, but if we assume (as is natural to do) that weak ideologies will lead to frequent change in personnel, this will lead to less lobbying, not more and which of these effects will dominate is an issue for empirical analysis to resolve.

2.3.1 Political Institutions – Form of Government

The main focus of our analysis in this paper is, in the tradition of the political economy literature, on political institutions. We divide these into three categories: forms of government, electoral rules and the degree of federalism/centralization.

There is a certain amount of theoretical work on the impact of specific forms of

government on lobbying. Bennedsen and Feldmann (2002) argue that systems where there is no vote of confidence procedure (congressional systems), are more amenable to lobbying because in such political systems coalitions are often made on an ad-hoc basis depending on the policy in question and lobbying might be useful because it provides information about the benefits and costs a certain policy provides to different districts. This makes it easier for the policy supporters to set up a coalition. In a parliamentary system, where there is a confidence procedure, it is much more difficult to set up ad-hoc coalitions for different pieces of legislation and so the information that lobbies may provide is less useful. Helpman and Persson (2001) study how the internal organization of parliaments affects lobbying efforts. They argue that in (US-style) congressional systems, policies tend to be more unevenly distributed than in parliamentary systems and that lobbying reinforces this effect. To the extent that one can imagine lobbyists to be more likely to be the winners in the process of legislative bargaining, one can conjecture that congressional systems provide more incentives for lobbying.

Kunikova (2006) and Persson, Roland and Tabellini (1997 and 2000) both address the impact of an independent executive (a president) on lobbying.[10] The former argues that presidents are not accountable to a coalition because they cannot be removed by the legislature and because the legislature also need their cooperation in terms of the policy making process. Therefore, presidents can find it relatively easy to pursue rent-seeking activities. On the other hand, Persson, Roland and Tabellini argue that checks and balances reduce the opportunities for lobbyists to seek special favors because a system of checks and balances i) makes it clear to voters who is accountable for policy-making decisions and ii) provides a process whereby it is more difficult for different politicians to collude at the

[10] Both papers refer, implicitly or explicitly, to corruption at the political level. In particular note that while presidents have executive powers and can thus be seen as rule enforcers, attempts to influence them surely tend to address their role of rule-makers instead.

general public's expense.

2.3.2 Political Institutions – Electoral Rules

Another major institutional component that has been explored is the role of the electoral system. There is a substantial literature where the main mechanism through which electoral systems affect lobbying opportunities is that of political accountability. Persson, Tabellini and Trebbi (2003) argue that decreasing district magnitude is associated with more lobbying because as district magnitude decreases, fewer and fewer parties can hope to challenge. This gives voters less choice and makes it harder to hold politicians accountable. At the same time, closed-party lists (where voters don't have a direct choice of candidates and can only vote for a given party) also reduce accountability and make lobbying relatively more effective. Kunicova and Rose-Ackermann (2005) agree that closed-party lists are inherently more amenable to lobbying but also argue that in majoritarian systems, politics is more adversarial and less consensual because of the small number of parties and so monitoring of one side by another is stronger. In other words, in majoritarian systems we are less likely to see parties covering each other's backs and thus we should observe more accountability. Moreover, the large number of parties reduces accountability because it also makes it more difficult to attribute responsibility to specific parties or politicians. So, we should expect an unambiguously positive effect of closed lists on lobbying while for the effect of higher district magnitude (which correlates highly with proportionality) we should expect a negative effect on lobbying if the effect highlighted by Persson et al. (2003) dominates and a positive effect if the effect highlighted by Kunicova and Rose-Ackermann (2005) dominates.

2.3.3 Political Institutions – Federalism

A third major institutional characteristic is the level of (de)centralization in a given country. The recent literature, both theoretical and empirical, has so far produced contrasting results in analyzing the relationship between federalism on the one hand, and lobbying and corruption

on the other. Once again, one of the main problems has been that the literature has not taken on board the distinction between something that has a strong relationship with political institutions and something for which this relationship is weaker as the counterparts are bureaucrats, not politicians. This is particularly important here because some of the factors that have been put forward in discussing the relationship between federalism and lobbying or corruption, critically depend on this distinction. So, for example, one could argue that decentralization has a negative impact because it reduces the quality of bureaucrats while one could also argue that yardstick competition between different local entities has a positive impact.[11] Clearly, the first theory is more relevant to what we have defined as corruption, which would be likely to increase while the second theory would be more relevant to our notion of lobbying because politicians are more vulnerable than bureaucrats to pressure from voters if their locality is underperforming. Thus, we would expect that the potential effectiveness of lobbying to be reduced. Further, a decentralized system should make lobbying more difficult because a politician's ability to commit to certain policies is more limited when others (up and down in the hierarchy) can change things.

2.4 Firm Characteristics, Influence and Firm Outcomes

The analysis will also consider several variables that have to do with the specific characteristics of the enterprises in our sample. These are firm size, age, whether they are privately owned and whether they are foreign owned. With respect to firm size and age, two possible conjectures emerge. On the one hand, smaller and younger, less established firms, should be more likely to rely on corruption because they don't have the resources or have not had time to establish connections with the political establishment. On the other hand, one can

[11] A strand of the literature has identified the opposite effect on this very point. When there is great heterogeneity between different local entities, the less productive regions will lose investments and will focus on predation (Cai and Treisman 2005) or, different regions might compete by guaranteeing firms protection from the federal government (Cai and Treisman 2004).

also conjecture that it is precisely due to these drawbacks that these firms should be more likely to join a lobby group which would compensate for this. Either way, this stresses that controlling for such characteristics is essential. We also expect privately and foreign owned firms to rely less on corruption and more on lobbying.

Having discussed how different political institutions and firm characteristics affect the decision to lobby or corrupt bureaucratic officials, we also need to ask ourselves how effective these two instruments might be. In particular, which of these is more effective in obtaining political influence? Secondly, what effects do they have on firm performance? The answer to the first question should be straightforward as we have argued that lobbying is a more reliable albeit more expensive way of attempting to influence politicians. Therefore, we would expect this to be the case in our empirical. The answer to the second question is less obvious. Presumably, firms decide to use lobbying or corruption in order to improve their profitability but it is also possible that they might feel forced to do that by an institutional and economic environment that is not favorable to them. In addition, firms might be victims of a bad equilibrium where lobbying and/or corruption are so endemic that they become necessary just to keep up with competitors. Our empirical strategy will be to try to isolate the effect to see whether these influence seeking methods have a net positive or negative effect on firm performance.

3. Data and Methodology

In this section, we describe the main features of the data set and of the econometric methodology we use to test the hypotheses outlined above. Our main data source is the Business Environment and Enterprise Performance Survey (hereafter, BEEPS). This is a survey of firms that was conducted in 2002 by the European Bank for Reconstruction and Development (EBRD) and The World Bank. It covers a total of 5856 firms in 26 transition

countries which were surveyed using identical questionnaires through face-to-face interviews with firm managers and owners.[12]

The 26 countries in our sample are as follows (with the number of firms interviewed in parenthesis): Albania (132), Armenia (170), Azerbaijan (168), Belarus (250), Bosnia (156), Bulgaria (245), Croatia (173), Czech Republic (266), Estonia (152), Georgia (172), Hungary (207), Kazakhstan (250), Kyrgyzstan (170), Latvia (167), Lithuania (195), Macedonia (121), Moldova (174), Poland (488), Serbia and Montenegro (223), Romania (254), Russia (487), Slovakia (157), Slovenia (188), Tajikistan (172), Ukraine (461) and Uzbekistan (258).

In order to ensure representativeness, statistical offices in each country were contacted and the total number of firms by industry and number of employees were obtained.[13] Information was also collected from the statistical offices on the share of each industrial sector in Gross Domestic Product so that, for each country, the composition of the firms in the sample reflects differences in the relative shares of each sector in GDP as well as their firm size distribution.

Central to our analysis is the data on lobby membership and corruption. On the former, firms were asked whether or not they were a member of a trade association at the time of the interview.[14] A positive answer was coded "1," while the value of zero was given

[12] The original questionnaire, a report on sampling and implementation as well as the data set are available on-line at http://www.ebrd.com/country/sector/econo/surveys/beeps.htm

[13] The sample is representative of firms operating in the formal sector and thus having a registration number with the central authorities (in other words, it excludes those in the informal sector, and grey or second economy). The samples were drawn for each country independently.

[14] It is also possible that firms lobby directly in addition or as opposed to lobbying indirectly through a trade association or lobby group. Unfortunately, our data does not contain information on this. Further, the question as phrased does not separate trade associations from pure lobby groups when it is not unreasonable to expect that their effects may differ as the latter may tend to be more focused (contrast say an environmental lobbying group with a trade association that lobbies for a broad range of issues that are of interest to their membership). Yet "membership" is the standard way of proxying

to a negative answer. On average, about a third of the firms in our sample said they were members of a lobby group. The relatively large standard deviation indicates that these figures may vary considerably across countries. Indeed, they range from a low of 9 percent (of the firms being lobby members) in Belarus to 96 percent of Slovenian firms answering they were members at the time of the interview.[15] If we correlate lobbying membership with the level of per capita GDP (the source for the latter is the Penn World Tables 6.2 and the data refers to the log of per capita GDP at purchasing power parity for the year of the survey, 2002) we find there is a positive correlation between lobby membership and per capita GDP, but also that this correlation is not particularly high, at around 0.12. It is worthwhile mentioning that if, using the BEEPS 1999 data discussed in Campos and Giovannoni (2007), we compare levels of lobby membership in 1999 to those in 2002 we find that it seems to be rising in these economies. Moreover, this is happening while these countries post positive and high GDP growth rates and, as noted by the EBRD (2006), decreasing levels of corruption.[16] Because the firm identifiers are not provided it is not possible to link these two data sets and assess these trends in full at this moment, but it is clear to us that future research will do well in trying to understand these largely untapped and potentially important trends.

The measure of corruption we use captures firms' experience with corruption in each country. The reason for focusing on this type of measure, despite the availability of various

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for lobbying in the empirical cross-country literature (Potters and Sloof, 1996.) It is a deficiency that information on lobbying is restricted to firm membership, and does not include, *inter alia*, values of membership fees, whether it is voluntary, the matter of political campaign contributions, etc. Given that this is an issue shared by the empirical literature on lobbying, future research would do well in studying these aspects.

[15] For the sake of robustness and because Slovenian firms were obliged to be members of a trade association until the late 1990s, we re-estimated all models reported below without these firms and find that our main results were unaffected (these are available from the authors upon request).

[16] Note also that the pair-wise correlation between lobbying and corruption, on the one hand, and levels of per capita GDP, on the other, also decline from 1999 to 2002.

well-know aggregate macro measures (such as those from Transparency International), is because recent consensus among researchers in this area favors the former (Svensson, 2005). For instance, in his review, Treisman (2007, page 213) argues that: "[…] the widely-used subjective indexes are capturing not observations of the frequency of corruption but inferences made by experts and survey respondents on the basis of conventional understandings of corruption's causes. I conclude that the challenge of the next wave of research will be to refine and gather more." In this light, we focus our analysis on experience-based measures of corruption (in this case, experienced by enterprises). Our firm-level corruption measure is originally from the BEEPS data base. In our analysis, it is a dummy variable that was coded "1" if the firm answered that firms "like yours" typically pay 10% or more of total revenue per annum in unofficial payments to public officials (and zero, otherwise).[17] On average, about 20% of the firms in our sample believe that this is indeed the case in their particular countries and industries. As mentioned above, when compared with the figure given in Campos and Giovannoni (2007), this shows that the level of corruption seems to have decreased from 1999 to 2002 (recall that during the same period GDP and lobby membership are going up across the region). Again, the relatively large standard deviation indicates that these figures vary considerably across countries: they range from a low of 4 percent in Estonia (that is, 4 percent of Estonian firms say that firms there pay more than 10% of their revenue in unofficial payments) to a maximum of about 35 percent of firms in Albania and Tajikistan. A crucial clue that we are indeed capturing something inherently

[17] The cut-off value of 10% is admittedly arbitrary. In its defense, we offer that this threshold was chosen for this categorical variable as a rough estimate of expected rates of return to investment in the "average sector in the average country": if firms have to pay such a high percentage of revenues in unofficial payments to public officials it may be difficult for them to break-even. With this concern in mind, we have re-coded this variable by lowering as well as by increasing this threshold and we have also tried using dummy variables for each category (of percentage of revenue) but none of these affect qualitatively the results reported in the next section.

different with our measures of corruption and lobbying is that the simple correlation between these two measures is extremely low (at -0.047). Also of interest, is that the correlation between corruption and the level of per capita GDP is negative but not particularly high, at -0.11.

Our central hypothesis is that lobbying and corruption are fundamentally different: we have argued above that differences in political institutions significantly affect the choice firms make between lobbying and corruption. Recognizing that 'political institutions' is a multi-faceted concept, we collected data on a number of its key dimensions. More specifically, and as explained in section 2 above, we divide potential determinants in three groups: democracy and stability, forms of government and electoral rules.

In terms of democracy and stability, we collected data for how democratic is the *political process* (coded from a maximum of 1 for "democratic" to a minimum of 7 for "totally not democratic") as well as for the degree of *media independence* (coded from a maximum of 1 for "free media" to a minimum of 7 for "totally not free media").[18] From the same source, we have used an aggregate indicator of *democratization* (which actually is an average of ratings for political process, civil society, independent media, and governance.) We are also interested in understanding the role of political instability on the probability of an individual firm being a member of a lobby group and of using corrupt practices.[19] In order to capture political instability, we use a similar approach to the one for corruption in that we favor firm-based measures. They are also from the BEEPS 2002 data base and refer to the "number of working days lost due to strikes or other labor disputes" and "number of working

[18] Independent Media and Political Process are both from Freedom House's *Nations in Transit*, 2003. They are measure in a 1 to 7 continuous scale; where 1 represent the highest levels of media independence. Political process reflects national executive and legislative elections, the development of multiparty systems, and popular participation in the political process.

[19] Serra (2006) shows that there is a robust correlation between political instability and corruption. See also Damania et al. (2004).

days lost due to civil unrest." The pair-wise correlations involving these variables, with respect to lobbying and corruption, are all very small and never above .05. In addition, we have also used a measure that reflects the degree of alternation of leaders (from Hoff, Horowitz and Milanovic, 2005). The cumulative number of changes in leadership is up to the date of the survey, that is, until 2002, and is measured as follows: "In democratic political systems (whether presidential or parliamentary), a leadership change is counted when control of all veto-wielding legislative houses changes. In presidential democratic systems—where presidents have either decree powers or veto power that can be overridden only by legislative supermajorities—the president, too, must change. A change in the leadership of some but not all of the relevant veto-wielding institutions is not counted" (Hoff et al. 2005).

Our variables for forms of government encompass whether or not the country is a federal state (coded 1 if federal, zero otherwise), a categorization of the political system (coded 1 for parliamentary, 2 for semi-parliamentary dominated by parliament, 3 for semi-parliamentary dominated by the president, and 4 for presidential), and for an index of the *de jure* presidential power (Presidential Power Index). The source of these variables is Armingeon and Careja (2004). We also use a dummy variable for whether or not the country has a parliamentary system (from Keefer, 2005), as well as data for presidential veto powers[20] (from Tsebelis and Rizova, 2006) and executive constraints (from Polity IV). The Presidential Power Index reflects the extent of *de jure* powers stipulated by the national constitution. Armingeon and Careja (2004) identify 29 different powers (e.g., to dissolve the parliament, to call referendum, to call elections) and examine the text of national constitutions to assess whether or not, and the extent to which, the executive actually holds these powers. 'Executive constraints' is our *de facto* measure of executive powers (it is

[20] The index of president veto power is a dummy variable that takes the value of 1 if the answer is yes to "Can the president amend vetoed legislation?" and zero otherwise. It is thus an indicator of a *de jure* presidential power (albeit rather specific and from a more specialized source).

defined in Polity IV as a measure of "operational (de facto) independence of chief executive.") It uses a 1 to 7 scale, with 1 indicating unlimited executive authority and 7 indicating executive parity or subordination. This last measured has been used widely in comparative research (e.g., Acemoglu et al., 2001).

The variables we select to reflect electoral rules include a variable from Persson, Tabellini and Trebbi (2003) that reflects the use and extent of closed lists (*PINDP*). Notice that the country coverage is not as comprehensive as this variable is only potentially available for 10 of the 26 countries in our sample. From Keefer (2005), we obtain comparable measures but for a larger number of countries in our sample. Closed lists reflect whether or not closed lists are used, while mean district magnitude reflects the size of electoral districts.[21]

We are interested in both the way lobbying and corruption translates into political influence as well as how they affect firm performance. Our measures of influence reflect firms' perceptions in terms of whether it has influenced the content of laws and regulations affecting its operation. The source is again the 2002 BEEPS data base. Our measure is a binary variable coded 1 if the firm answered "yes", and zero if it answered "no." We find that 24 percent of the firms answer yes to this question on influence, with the relatively large standard deviation suggesting large cross-country variation: from 14 percent in the Czech Republic to 54 percent in Albania. The pair-wise correlations between corruption and lobbying, on the one hand, and influence, on the other, are also not high, being around -0.04 for the former and about 0.27 for the latter.

[21] "The weighted average of the number of representatives elected by each constituency size, if available." If not, we use the number of seats divided by the number of constituencies (if both are known). If the constituencies are the provincial or state divisions, we use the number of states or provinces to make this calculation for as long as we know this number and the number of seats. If the only information we have on the number of constituencies comes from the Inter Parliamentary Union (IPU), and the constituencies are not the states/provinces, then we use IPU's number to calculate the Mean District Magnitude for 1995, and leave all unknowns blank."

Firm performance is measured in terms of growth of sales, as originally asked in the BEEPS questionnaire. Managers were asked to estimate the rate of growth of their firms' sales in real terms between 1999 and 2002. Given that firms in different sectors (from manufacturing and services) are present in our sample, sales growth is a much better measure of performance than employment or labor productivity in the sense that these are less likely to be intentionally under- or over-reported and so it should be measured with less error.

From the BEEPS 20002 data set, we also obtain various auxiliary variables to capture different characteristics of the firms. These are the year in which the firm started production, the size of the firm in terms of full-time employees, whether or not the largest shareholder is a foreign company (domestic private ownership being the excluded category as there are no state-owned firms in the sample) and, as mentioned, as a measure of firm performance, we focus on the rate of growth of sales between 1999 and 2002. The year in which the average firm started operating is 1987 (this is because of a few old firms in the sample, the oldest one from year 1800), yet the median starting year is 1994. As explained above, the majority of the firms sampled are small privately-owned enterprises, so it is not surprising to see that the share of medium sized firms (classified in the original questionnaire as having more than 50 and less than 249 full time employees) is around 14 percent of the total and that of large firms (having more than 250 full time employees) is about 18 percent. By the same token, the share of foreign-owned firms is about 16 percent. The average growth rate of sales in the period 1999 to 2002 is 24 percent, but the relatively large standard deviations suggests that there a few extreme cases, and the data indeed shows that the fastest growing firm experiences an increase of 990 percent in the value of its sales over the period (not surprisingly, an oil firm in Azerbaijan).

We now turn to the econometric methodology. There are four main questions of interest: (a) what are the factors that determine the likelihood of a firm being a member of a

lobby group? (b) What are the factors that determine the likelihood of a firm using corrupt practices? (And, of course, how different are the answers from (a) from the answers from (b)?) (c) What is the relative role of corruption and lobby membership in explaining the probability of a firm seeing itself as influential vis-à-vis government laws and regulations? And (d) what is the relative role of corruption and lobby membership in explaining the variation in firm performance in terms of sales growth across countries? As explained above, the dependent variable in (a), (b) and (c) are dichotomous variables. In question (a), it takes the value of 1 if the firm is a lobby member and of zero if not. In question (b), it takes the value of 1 if the firm uses corrupt practices, zero otherwise. In question (c), it takes the value of 1 if the firm perceives itself as influential, zero otherwise.

Because our focus is on which political institutions affect corruption and lobbying (and whether the same institutions affect them differently), our lobbying and corruption equations have similar specifications (set of explanatory variables). Further, because both corruption and lobbying are measured as dummy variables, the estimation method is also the same. Thus we estimate the following maximum likelihood probit equation for lobbying or for corruption:

$$P(Y_{ic}=1)=\Phi(\beta_0 FS_{ic}+\beta_1 Age_{ic}+\beta_2 Ownerpriv_{ic}+\beta_3 Ownerfor_{ic}+\beta_4 GDP_c+\delta P_{ic}+\pi V_{ic}) \qquad (1)$$

where Y_{ic} refers to lobbying or corruption. $lobbying_{ic}$ is a binary variable indicating whether firm i in country c is a member of a lobby group, while $corruption_{ic}$ is a binary variable indicating whether a firm pays more than 10% of its annual revenues on bribes; FS_{ic} is firm size (measured in number of full-time employees); Age_{ic} is the year the firm started to operate; $Ownerpriv_{ic}$ is whether the firm has private owners; $Ownerfor_{ic}$ is whether the firm has foreign owners; GDP_c is real per capita GDP in the country in which the firm is located; P_{ic} is a vector of political institutions variables (as discussed above, covering democracy and stability, forms of government and electoral rules); V_{ic} is a vector of auxiliary control

variables (including our measures of corruption or lobbying e.g. $corruption_{ic}$ when $lobbying_{ic}$ is the dependent variable and vice-versa); and Φ is the cumulative standard normal distribution function.

The next model we estimate is for political influence and uses the following probit equation:

$$P(INFLUENCE_{ic} = 1) = \Phi(\delta_0 lobbying_{ic} + \delta_1 corruption_{ic} + \eta W_{ic}) \quad (2)$$

where $influence_{ic}$ is a binary variable indicating whether firm *i* (in country *c*) perceives itself as influential vis-à-vis laws and regulations; $lobbying_{ic}$ is the binary variable defined above; $corruption_{ic}$ is our measure of corruption (which can be country-level or alternatively firm-based); W_{ic} is a vector of auxiliary control variables (including per capita GDP, firm ownership and measures of political instability); and Φ is the cumulative standard normal distribution function.

A similar specification to that in the influence equation is used for firm performance (sales growth), yet because the dependent variable in this case is continuous, we estimated it by Ordinary Least Squares instead:

$$Performance_{ic} = \delta_0 lobbying_{ic} + \delta_1 corruption_{ic} + \eta W_{ic} + \varepsilon_{ic} \quad (3)$$

where $Performance_{ic}$ is a continuous variable reflecting the rate of growth of sales in real terms between 1999 and 2002 of firm *i* (in country *c*); $lobbying_{ic}$ is the binary variable defined above; $corrupton_{ic}$ is our measure of corruption (which can be country-level or alternatively firm-based); and W_{ic} is a vector of auxiliary control variables (including per capita GDP, firm ownership, headquarters location and measures of political instability).

In these latter models (influence and firm performance) we are naturally concerned about the potential endogeneity of lobby membership and corruption. The issue regards the possibility that (at least) one of the explanatory variables (i.e., corruption or lobbying) in the influence (or performance) equation is endogenous. Firms may be more likely to join lobby

groups if and when such groups are perceived to be influential or if they learn that lobbying delivers large benefits in terms of performance. By the same token, firms may be more likely to bribe if, ceteris paribus, they expect this to give them more clout, with better performance also a possible expression of this increased influence. It is therefore important to address the possibility that our probit estimates might be inconsistent. In order to take this issue into account, we apply the Instrumental Variables estimator. Below we estimate the influence equation (equation 2 above) and the performance equation (equation 3 above) treating corruption and/or lobbying as an endogenous variable. We carry this out using equation (1) as the baseline first-stage regression and check whether the results are robust to changes in the instrument set.

4. Econometric Results

In this section we present and discuss our econometric results in three stages: firstly, we investigate whether political institutions do indeed affect lobbying and corruption according to the hypotheses we spell out above and whether they affect lobbying and corruption differently in a significant way (Tables 1 to 5). Secondly, we study how lobbying and corruption generate political influence and whether one of these two is more effective in doing so (Tables 6 and 7). Thirdly, we study how lobbying and corruption affect firm performance and whether one of the two is more powerful in so doing (Tables 8 and 9).

Tables 1 to 5 report our results for the various determinants of lobbying and corruption. There are two sets of general findings worth highlighting. One is that corruption never turns out to be an important determinant of lobbying, and vice-versa, the choice of lobbying never seems to be an important determinant of corruption. A second set of findings refer to the controls we use: we find evidence that older, larger and foreign firms are systematically associated with lobbying, while (independently) younger, smaller and

domestic firms are systematically associated with corruption. Interestingly, once these factors are taken into account, there is no systematic pattern with respect to per capita GDP. That is, per capita income can show a positive or a negative effect on corruption and/or on lobbying conditional on different sets of political institutions. The next question is, then, which and how political institutions affect corruption and lobbying.

The role of democracy and political instability as determinants of lobbying and corruptions are examined in Tables 1 and 2, respectively. It is nothing short of remarkable how contrasting these two sets of results are. On the one hand, we find that lobbying is more likely in more democratic countries, where the media is more independent and in contexts in which the overall political process is more democratic. Recall that the variable political process refers specifically to the transparency of national executive and legislative elections, the development of multiparty systems, and the extent and intensity of popular participation in the political process. Although this factor (and an independent media) are obviously part of the overall democracy variable, as explained above we are interested in checking how instrumental these individual components turn out to be in differentiating between lobbying and corruption. Table 2 shows that democracy, independent media and political process are negatively and significantly associated with corruption, in exact contrast to the same results for lobbying. Also we find that political instability does not seem to exert a significant effect on the decision to lobby (we report a firm-based measure reflecting days of work lost due to worker strikes), while we find that instability is a somewhat important driver of corruption: firms that experience a large number of days of work lost due to strikes tend to pay a high share of their annual revenues in bribes. In short, political instability breeds corruption, but it does not seem to breed lobbying.

Of course, political instability does not need to be violent, organized or of a localized nature. As explained in detail in the previous section, we believe that alternation of political

groups in power is an equally important aspect that may have important consequences in terms of the choices firms make between bribing and lobbying. In line with our previous discussion about the roles of rule-makers and rule-enforcers, we find that political alternation is detrimental to lobbying efforts yet beneficial for firms that favor corruption as a means of exerting political influence.

Forms of government are another potentially important determinant of the choices firms make in terms of lobbying and corruption. We present these results in Tables 3 and 4. We again find a remarkable degree of contrast between the two sets of results. We find evidence that lobbying blossoms in contexts in which the executive has more limited formal powers, less veto powers and more binding *de facto* constraints (Table 3). By the same token, we can see that corruption tends to increase in contexts in which the executive has less limited formal powers, more veto powers and less binding *de facto* constraints (Table 4). We also find evidence that federal or decentralized states are less conducive to corruption and more conducive to lobbying. When we use a rough measure of whether or not the political system is mostly parliamentary, we find somewhat surprisingly that this is associated with less lobbying and with more corruption. However, a finer depiction of this key feature of the political institutional framework reveals that actually lobbying thrives in pure parliamentary and pure presidential systems and that it weakens both in semi-parliamentary and semi-presidential systems. Interestingly, we obtain exactly the opposite result for corruption: the latter increases in the two mixed systems and decreases in the two pure cases (pure parliamentary and pure presidential system.) We think this result offers a new and interesting way to approach the discussion on the possible non-linearity of the effects of political institutions on the choice between lobbying and corruption, discussed in section 2 above.

Table 5 shows our results for another set of political institutions that inspired much recent research, namely electoral rules. Both PINDP and the "Closed List" results seem to

confirm the prediction that closed lists reduce accountability for politicians and thus are more conducive to lobbying. The result for corruption, however, does little to reinforce the pattern we have found so far (driven by substitutability) in which the coefficients for lobbying and corruption tend to go in opposite directions. For district magnitude, the results seem to be in line with Persson, Tabellini and Trebbi (2003) which emphasizes the positive effect of district size on reducing lobbying.

In sum, the results in Tables 1 to 5 show that: (a) lobbying and corruption are very different according to the views expressed by our large and representative sample of firms in 26 countries; (b) some firm characteristics are important to understand their differences, in particular, older, larger and foreign firms are systematically more likely to engage in lobbying while their younger, smaller and domestic counterparts are systematically more likely to engage in corruption; (c) once these firm characteristics are taken into account, there is little support for a consistent effect of the level of per capita GDP in determining lobbying and corruption choices; and (d) political institutions, however, seem instrumental in explaining these differences: firms that are more likely to engage in lobbying are those located in federal states, with presidential systems and, within presidential systems, where the president has fewer (de jure and de facto) powers. Within parliamentary systems, lobbying is more effective where there are more constraints on the executive. Finally, we find that lobbying is also more effective where the electoral system features closed lists and has smaller districts. Crucially, the significant determinants we find for corruption are the same, with the extremely few exceptions noted above, but carry the exact opposite signs. It is on this basis that we claim that corruption and lobbying should be better understood as substitutes.

Once this relationship between lobbying and corruption is established, the natural question that follows is whether any one of them is systematically more powerful or effective

in terms of political as well as of economic performance. Table 6 examines their relative importance in terms of the production of political influence and indeed the main finding is that firms in our sample systematically point to lobbying as the most effective way of exerting political influence. As the table shows, the coefficient on corruption is never significant and, in a few cases, even suggests that corrupt firms are less influential, lending some further support to the notion of substitutability between the two. Taking the specification in column 6, and evaluating at the mean, the fact that the firm is a lobbying member increases the probability of a firm perceiving itself as influential by around 19.4%. In terms of firm characteristics, the results are also reassuring: we find that older and larger firms tend to see themselves as more influential, while foreigners and those located in richer countries do not necessarily do. In terms of various political institutions, we note that firms in parliamentary systems, in federal states, and where the executive enjoys a larger range of *de jure* powers, also tend to perceive themselves as more influential.

One major concern regarding these results is that lobbying, corruption and influence are jointly determined. Table 7 tries to address such concerns by jointly estimating our influence and corruption equations (column 1), by jointly estimating our influence and lobbying equations (column 2), and in the remaining columns, by jointly estimating our influence, lobbying and corruption equations. As it is clear from the table, using Instrumental Variables Probit does little to affect our main result that lobbying is a much more effective mean of producing political influence than corruption. Moreover, this conclusion is not only robust to whether we model only corruption as endogenous, only lobbying, or both, but also to changes in the instrument set in terms of which dimension we select to capture political institutions (in columns 1 to 3 we use parliamentary and days lost to strikes, while in column 4 we use mean district, in column 5 political process, in column 6 political alternation and in column 7 independent media.) The diagnostic statistics provided in Table 8 all show that in

no case the set of instruments could be considered invalid or irrelevant.[22]

So far, we established that not only lobbying and corruption are very different, but the former is much more effective in generating political pay-offs. The natural question is: but what about the economic pay-offs? In section 2 we suggested that lobbying is both the instrument of choice for more successful firms but whether the impact of lobbying or corruption is larger may be more difficult to assess. The measure of economic pay-offs or economic performance we use is the growth rate of the firm's sales in the three years before the survey interviews took place (that is, between 1999 and 2002.)

Table 8 has our baseline results for the case of firm performance while in Table 9, as before, we try to address concerns about biases introduced by the possibility that corruption, lobbying and sales growth are jointly determined. As it can be seen in Tables 8 and 9, the main result is that lobby members grow faster. The result remains after we incorporate the aforementioned endogeneity concerns. Using column 7 from table 8, a lobby member on average, between 1999 and 2002, grew 15 percentage points faster than a non-lobbying member over the same period. Keeping in mind that the average firm grew 24% in this period, the impact of lobbying is substantial. Equally important is the result the coefficient on corruption is (again) never statistically significantly different from zero indicating that the use of bribes does not seem to matter with respect to sales growth.

We also find that younger firms systematically grow faster, but that this can not be said when considering firm size or ownership. In terms of political institutions, those firms that have grown faster, tend to be located in countries where the media is independent, but also where the executives face less *de jure* and *de facto* constraints, in presidential systems,

[22] For the sake of completeness, we also run the following robustness exercise. If we exclude lobbying from all these specifications, the coefficient on corruption is never statistically significant. If we exclude corruption from all these specifications, the coefficient on lobbying is still always positive and statistically significant.

and in countries in which the degree of centralization tend to be higher (that is, in non-federal states).

In sum, we first established that corruption and lobbying are different, and that their differences can be understood in light of deeper differences in the political institutions in which these firms operate. If they differ, the question that follows is which one is preferable for firms. In this regard, we find, present and discuss substantial and systematic evidence supporting the notion that lobbying is more robustly associated with higher political and economic pay-offs (influence and sales growth, respectively) than corruption. The fact that many of the countries in which our firms operate are often identified as some of the most corrupt places in the world stacks the cards against our hypothesis and reinforces our main findings.

5. Conclusions

This paper tries to clarify the economic and political determinants and roles of lobbying and corruption. In doing so we challenged a commonly held view that they differ by the means used to obtain influence, while we argue that the fundamental difference has to do with where influence is being sought. For us, lobbying is all the actions taken to obtain influence with rule-makers while corruption is all the action taken to influence rule-enforcers. We provide a conceptual framework in which we show how our distinction allows us a rich set of predictions on the relationship between these phenomena, on how they are affected by different political institutional set-up and how important they are for the success of firms.

Using 2002 survey data for almost 6000 firms in 26 developing countries, we show that political institutions play a significant role in explaining how they differ. More specifically, we divided potential determinants in three groups: democracy and stability, forms of government and electoral systems. We find that the firms that are more likely to

engage in lobbying are those that are older, larger, and foreign-owned, and tend to be in countries that are less politically unstable, more democratic, with more independent media, and more leadership alternations since 1989. We also find that the firms that are more likely to engage in lobbying are those located in federal states, with presidential systems and, within presidential systems, where the president has fewer (de jure and de facto) powers. Within parliamentary systems, lobbying is more effective where there are more constraints on the executive. We find that lobbying is also more effective where the electoral system features closed lists and has smaller district magnitude. Crucially, the significant determinants we find for corruption are the same but carry the exact opposite sign, with extremely few exceptions. On this basis, we claim that corruption and lobbying and substitutes in our sample. Further, we find confirmation that lobbying, seems to be a much more effective instrument for political influence than corruption. More surprisingly, we also find that lobbying is a much stronger explanatory factor of firm performance than corruption, and this even in poorer, less developed countries.

One main challenge for future research on these issues is that while more precise data at firm level on corruption is beginning to be available, data on lobbying at the firm level is still very sketchy. A very important issue, for example, is that with the existing data we cannot distinguish between firms who lobby directly in addition or as opposed to lobbying indirectly through a trade association or lobby group, nor can we separate trade associations from pure lobbies. Further, in the paper we have stressed the extreme importance of differentiating between lobbying and corruption with respect to their targets and not the means used. But once this crucial distinction is understood, a question does remain of how different means of lobbying can perform in specific institutional contexts. On this count, progress at both theoretical and empirical level is needed and would be extremely important.

References

Acemoglu, Daron, Simon Johnson and James A. Robinson (2001) "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*, 91, 5, 1369-1401.

Aidt, T. (2003) "Economic analysis of corruption: A survey", *Economic Journal* 113 (491), F632-F652.

Armingeon, K. and R. Careja, "Comparative Data Set for 28 Post-Communist Countries, 1989-2004," Institute of Political Science, University of Berne, 2004.

Austen-Smith, D. and J. R. Wright, (1994) "Counteractive lobbying," *American Journal of Political Science* vol. 38, n. 1, pp. 25-44

Austen-Smith, D., (1997) "Interest Groups: Money, Information and Influence" in D.C. Mueller, ed., *Perspectives on Public Choice,* 296-321. Cambridge University Press.

Bardhan, P. (1997) "Corruption and development: A review of issues", *Journal of Economic Literature*, vol. 35, pp. 1320–1346.

Baron, D. (1994), "Electoral Competition with Informed and Uninformed Voters", *American Political Science Review,* vol. 88, pp. 33-47.

Baldwin, R.E. and F. Robert-Nicoud (2002) "Entry and asymmetric lobbying: Why governments pick losers" NBER Working Paper 8756.

Beck, T., G. Clarke, A. Groff, P. Keefer, and P. Walsh (2001) "New tools in comparative political economy: The database of political institutions" *World Bank Economic Review* 15: 165-176.

Bennedsen, M. and S. Feldmann (2006), "Informational Lobbying and Political Contributions", *Journal of Public Economics 90 (4-5):*631-656.

Besley, T. and A. Prat, (2006) "Handcuffs for the Grabbing Hand? The Role of the Media in Political Accountability", *American Economic Review*, 96(3): 720-736.

Bischoff, I. (2003), "Determinants of the Increase in the Number of Interests Groups in Western Democracies: Theoretical Considerations and Evidence from 21 OECD Countries." *Public Choice* vol. 114, pp. 197-218.

Brunetti, A. and B. Weder, (2003) "A Free Press is Bad News for Corruption", *Journal of Public Economics,* 87: 1801-1824.

Cai, H. and D. Treisman (2005) "Does Competition for Capital Discipline Governments? Decentralization, Globalization, and Public Policy" *American Economic Review*, 95: 817-830

Cai, H. and D. Treisman (2004) "State Corroding Federalism", *Journal of Public Economics*, 88: 819-43.

Campos, N. and F. Coricelli (2002), "Growth in Transition: What We Know, What We Don't, and What We Should," *Journal of Economic Literature*, Vol. XL (3), pp. 793–836.

Campos, N and F Giovannoni, "Lobbying, Corruption and Political Influence," *Public Choice* 131 (1): 1-21, March 2007

Coate, S. and S. Morris (1999), "Policy Persistence" *American Economic Review* 89: 1327-1336.

Dahm, M. and Porteiro, N. (2004), "The Carrot and the Stick: Which is the Lobby's Optimal Choice?" Working Paper, Kellogg School of Management.

Damania, R., Fredricksson, P.G. and M. Mani (2004), "The Persistence of Corruption and Regulatory Compliance Failures: Theory and Evidence" *Public Choice* vol. 121, pp. 363-390.

Drazen, A. (2000), *Political Economy in Macroeconomics*, Princeton University Press.

Della Porta, D. (2004), "Political Parties and Corruption: Ten Hypotheses on Five Vicious Circles", *Crime, Law and Social Change,* 42: 35-60.

Faccio, M. (2006), "Politically Connected Firms", *American Economic Review* vol. 96: 369-386.

Frye, T. (2002) "Capture or Exchange: Business Lobbying in Russia." *Europe-Asia Studies* vol. 54, pp. 1017-1036.

Goldberg, P. and G. Maggi (1999), "Protection for Sale: An empirical investigation," *American Economic Review* vol. 89, pp. 1135-1155.

Grossman, G. and E. Helpman (1994), "Protection for Sale." *American Economic Review* vol. 84, pp. 833-850.

Grossman, G. and E. Helpman (1996), "Electoral Competition and Special Interest Politics" *Review of Economic Studies* vol. 63, pp. 265-286.

Grossman, G. and E. Helpman (1999), "Competing for Endorsements". *American Economic Review* vol. 89, pp. 501-524.

Grossman, G. and E. Helpman (2001), *Special Interest Politics,* MIT Press.

Harstad, B. and J. Svensson (2008) "From Corruption to Lobbying and Economic Growth". Mimeo. Northwestern University.

Hellman, J. and D. Kauffman (2002) "The Inequality of Influence". Mimeo, World Bank.

Helpman, E. and T. Persson (2001) "Lobbying and Legislative Bargaining". *Advances in Economic Analysis and Policy,* vol. 1, issue 1, article 3.

Hoff, K., Horowitz, S. and B. Milanovic (2005) "Political Alternation as a Restraint on Investing in Influence: Evidence from Transitions Countries," World Bank, mimeo.

Kaufmann, D., Kraay, A. and Zoido-Lobaton, P. (1999), "Aggregating governance indicators," Policy Research Working Paper # 2195, The World Bank.

Keefer, P, "DPI2004: Database of Political Institutions," Washington DC, The World Bank, mimeo, July 2005.

Kunicova, J. (2006) "Political Corruption. Another Peril of Presidentialism?" Mimeo.

Kunicova, J. and S. Rose-Ackerman (2005) "Electoral Rules and Constitutional Structures as Constraints on Corruption", *British Journal of Political Science,* 35:573-606.

Li, Shaomin and Judy Jun Wu, "Why China Thrives Despite Corruption," *Far Eastern Economic Review*, 170 (3), April 2007.

Mitra, D., Thomakos, D. and M. Ulubasoglu (2002), "`Protection for Sale' in a Developing Country: Democracy vs. Dictatorship" *Review of Economics and Statistics* 84: 497-508.

Mitchell, W. and M. Munger (1991), "Economic Models of Interest Groups: An Introductory Survey," *American Journal of Political Science*, 35: 512-546.

Lowery, D. and V. Gray (2004), "A Neopluralist Perspective on Research on Organized Interests," *Political Research Quarterly*, 57: 163-175.

Montinola, G. and Jackman, R.W. (2002), "Sources of Corruption – A Cross Country Study", *British Journal of Political Science,* 32: 147-170.

Olson, M. (1965), *The Logic of Collective Action: Public Goods and the Theory of Groups,* Harvard University Press.

Persson, T. and G. Tabellini (2000), *Political Economics*, MIT Press.

Persson, T. and G. Tabellini (2003), *The Economic Effects of Constitutions*, MIT Press.

Persson, T., G. Roland and G. Tabellini (1997), "Separation of Powers and Political Accountability", *Quarterly Journal of Economics* 112: 1163-1202.

Persson, T., G. Roland and G. Tabellini (2000), "Comparative Politics and Public Finance", *Journal of Political Economy* 108: 1121-1161.

Persson, T., Tabellini, G. and F. Trebbi (2003), "Electoral Rules and Corruption", *Journal of the European Economic Association,* 1: 958-989

Potters, J. and R. Sloof (1996) "Interest Groups: A Survey of Empirical Models That Try To Assess Their Influence", *European Journal of Political Economy* vol. 12, pp. 403-442.

Recanatini, F., Prati, A. and G. Tabellini (2005) "Why are some Public Agencies Less Corrupt than Others? Lessons for Institutional Reform from Survey Data". Mimeo.

Rivers, Douglas, and Quang Vuong (1988), "Limited Information Estimators and Exogeneity Tests for Simultaneous Probit Models," *Journal of Econometrics* vol. 39, pp. 347-366.

Serra, Danila (2006) "Empirical determinants of corruption: A sensitivity analysis," *Public Choice* 126: 225–256

Sobel, R. and T. Garrett (2002) "On the Measurement of Rent Seeking and Its Social Opportunity Cost," *Public Choice* vol. 112, pp. 115-136.

Solanko, L. (2003) "Why favor large incumbents? A note on lobbying in transition", BOFIT Working Paper, N.6.

Sung, H.-E. (2004) "Democracy and Political Corruption: a Cross-National Comparison", *Crime, Law and Social Change,* 41:179-194.

Svensson, J. (2003) "Who Must Pay Bribes and How Much? Evidence from a Cross Section of Firms", *Quarterly Journal of Economics* vol. 118, n. 1, pp. 207-30.

Svensson, J. (2005) "Eight Questions about Corruption", *Journal of Economic Perspectives* vol. 19, n. 3, pp. 19-42.

Tsebelis, G and T. Rizova, "Presidential Conditional Agenda Setting in the Former Communist Countries," *Comparative Political Studies* 40 (10): 1155-82, 2006

Treisman, D. (2007), "What Have We Learned About the Causes of Corruption From Ten Years of Cross-National Empirical Research?" *Annual Review of Political Science 2007*, 10: 211-244.

Truman, D. (1951), *The Governmental Process*, New York: Knopf.

Yalcin, E. and R. Damania (2005) "Corruption and Political Competition". World Bank, Mimeo.

Table 1.
Democracy and Stability as Determinants of Lobbying:
Probit Estimates for A Sample of Firms in 26 Countries, 2002
(Dependent Variable is a Dummy for Lobby Membership, with yes equal to 1, zero otherwise)

	(1)	(2)	(3)	(4)	(5)
Corruption	0.0624	0.0443	0.0443	0.0564	0.0521
	[0.061]	[0.066]	[0.066]	[0.061]	[0.062]
Year started	-0.0038***	-0.00262**	-0.00262**	-0.00383***	-0.00349***
	[0.0012]	[0.0011]	[0.0011]	[0.0012]	[0.0012]
Medium size	0.507***	0.474***	0.474***	0.517***	0.493***
	[0.053]	[0.055]	[0.055]	[0.051]	[0.054]
Large size	0.747***	0.713***	0.713***	0.743***	0.728***
	[0.093]	[0.11]	[0.11]	[0.092]	[0.097]
Foreign-owned	0.279***	0.319***	0.319***	0.280***	0.277***
	[0.069]	[0.075]	[0.075]	[0.072]	[0.071]
Per capita GDP (log)	-0.478***	0.493***	0.714***	1.011***	0.178***
	[0.0086]	[0.014]	[0.013]	[0.013]	[0.012]
Democracy (NiT)	-0.210***				
	[0.0052]				
Independent media		-0.479***			
		[0.0097]			
Political process			-0.457***		
			[0.0092]		
Work days lost-strikes				0.00128	
				[0.0064]	
Cumulative Alt.					-0.0858***
Political Leadership					[0.0048]
Constant	12.02***	2.57	0.455	-1.026	5.178**
	[2.43]	[2.22]	[2.20]	[2.41]	[2.41]
Observations	5856	4918	4918	5665	5568

Notes: Robust standard errors in brackets, clustered at country level. *** p<0.01, ** p<0.05, * p<0.1 Democracy, Independent Media and Political Process are measured in inverse scale (e.g., lower values indicate more democratic countries) and their common sources is Freedom House's *Nations in Transit*. Work days lost-strikes reflects the answer from the firms in this sample to a question about how many work days were lost last year because of (legal or illegal) worker strikes (source is BEEPS 2002). Cumulative changes of ideological and political leadership are from Hoff et al (2005) and reflect the cumulative number of such changes since 1989.

Table 2.
Democracy and Stability as Determinants of Corruption:
Probit Estimates for Sample of Firms in 26 Countries in 2002
(Dependent Variable is Corruption defined as whether firm spends more than 10% of revenue in bribes)

	(1)	(2)	(3)	(4)	(5)
Lobbying	0.0505	0.0391	0.0391	0.0432	0.0414
	[0.059]	[0.067]	[0.067]	[0.058]	[0.061]
Year started	0.00725***	0.00679**	0.00679**	0.00735***	0.00712***
	[0.0027]	[0.0030]	[0.0030]	[0.0027]	[0.0027]
Medium size	-0.253***	-0.273***	-0.273***	-0.258***	-0.248***
	[0.081]	[0.096]	[0.096]	[0.083]	[0.083]
Large size	-0.522***	-0.504***	-0.504***	-0.538***	-0.517***
	[0.10]	[0.11]	[0.11]	[0.10]	[0.11]
Foreign-owned	-0.147**	-0.162**	-0.162**	-0.131**	-0.140**
	[0.059]	[0.066]	[0.066]	[0.057]	[0.061]
Per capita GDP (log)	0.0916***	-0.386***	-0.412***	-0.304***	-0.542***
	[0.015]	[0.018]	[0.021]	[0.020]	[0.013]
Democracy (NiT)	0.0207***				
	[0.0060]				
Independent media		0.0566***			
		[0.011]			
Political process			0.0540***		
			[0.011]		
Work days lost-strikes				0.0113*	
				[0.0063]	
Cumulative Alt.					0.0730***
Political Leadership					[0.0060]
Constant	-16.22***	-11.30*	-11.05*	-13.15**	-10.83**
	[5.25]	[6.00]	[6.01]	[5.51]	[5.40]
Observations	5856	4918	4918	5665	5568

Notes: Robust standard errors in brackets, clustered at country level. *** p<0.01, ** p<0.05, * p<0.1. Democracy, Independent Media and Political Process are measured in inverse scale (e.g., lower values indicate more democratic countries) and their common sources is Freedom House's *Nations in Transit*. Work days lost-strikes reflects the answer from the firms in this sample to a question about how many work days were lost last year because of (legal or illegal) worker strikes (source is BEEPS 2002). Cumulative changes of ideological and political leadership are from Hoff et al (2005) and reflect the cumulative number of such changes since 1989.

Table 3.
Forms of Government as Determinants of Lobbying:
Probit Estimates for Sample of Firms in 26 Countries in 2002
(Dependent Variable is a Dummy for Lobby Membership, with yes equal to 1, zero otherwise)

	(1)	(2)	(3)	(4)	(5)	(6)
Corruption	0.0564	0.0564	0.0641	0.0575	0.0558	0.0564
	[0.061]	[0.061]	[0.062]	[0.064]	[0.064]	[0.061]
Year started	-0.00383***	-0.00383***	-0.00333***	-0.00278***	-0.00264**	-0.00383***
	[0.0012]	[0.0012]	[0.0012]	[0.0011]	[0.0011]	[0.0012]
Medium size	0.517***	0.517***	0.519***	0.511***	0.495***	0.517***
	[0.051]	[0.051]	[0.053]	[0.054]	[0.053]	[0.051]
Large size	0.743***	0.743***	0.747***	0.739***	0.733***	0.743***
	[0.092]	[0.092]	[0.095]	[0.099]	[0.10]	[0.092]
Foreign-owned	0.280***	0.280***	0.281***	0.306***	0.313***	0.280***
	[0.072]	[0.072]	[0.074]	[0.072]	[0.073]	[0.072]
Per capita GDP (log)	1.158***	0.178***	0.181***	0.373***	0.752***	0.190***
	[0.011]	[0.012]	[0.012]	[0.011]	[0.0089]	[0.0082]
Work days lost-strikes	0.00128	0.00128	0.00117	0.00573	0.0039	0.00128
	[0.0064]	[0.0064]	[0.0065]	[0.0066]	[0.0060]	[0.0064]
Federal	0.266***					
	[0.014]					
Parliamentary system		-0.286***				
		[0.013]				
Political system			-0.264***			
(semi parliamentary)			[0.0083]			
Political system			-0.609***			
(semi presidential)			[0.013]			
Political system			0.291***			
(presidential)			[0.012]			
Presidential Power Index				-0.0421***		
				[0.0016]		
Executive constraints					0.381***	
					[0.0043]	
Presidential veto						-0.816***
						[0.0075]
Constant	-2.482	5.746**	4.418*	1.642	-3.466*	5.653**
	[2.40]	[2.43]	[2.26]	[2.08]	[2.06]	[2.40]
Observations	5665	5665	5512	5296	5200	5665

Notes: Robust standard errors in brackets, clustered at country level. *** p<0.01, ** p<0.05, * p<0.1. Federal is a dummy variable that takes the value of 1 if the country's constitutions determines it to be a federal state, zero otherwise (the source is Armingeon and Careja, 2004). Parliamentary system is a dummy variable that takes the value of 1 if the country's constitutions determines it to be a parliamentary state, zero otherwise (the source is Keefer, 2005). Political system is a categorical variable from Armingeon and Careja (2004) that classifies political systems into four types: parliamentary (the reference category above), semi parliamentary, semi presidential, and presidential. Armingeon and Careja (2004) also provide the Presidential Power Index which reflects 29 powers given to the president by the country's constitution. The level of constraints on the Executive is from the Polity IV data set. Presidential veto is a dummy variable that takes the value of 1 if the president has extensive veto power, zero otherwise (the source is Tsebelis and Rizova, 2006).

Table 4.
Forms of Government as Determinants of Corruption:
Probit Estimates for Sample of Firms in 26 Countries in 2002
(Dependent Variable is Corruption defined as whether firm spends more than 10% of revenue in bribes)

	(1)	(2)	(3)	(4)	(5)	(6)
Lobbying	0.0432	0.0432	0.0517	0.0452	0.0443	0.0432
	[0.058]	[0.058]	[0.060]	[0.062]	[0.063]	[0.058]
Year started	0.00735***	0.00735***	0.00724***	0.00725**	0.00718**	0.00735***
	[0.0027]	[0.0027]	[0.0028]	[0.0029]	[0.0029]	[0.0027]
Medium size	-0.258***	-0.258***	-0.268***	-0.263***	-0.266***	-0.258***
	[0.083]	[0.083]	[0.085]	[0.087]	[0.088]	[0.083]
Large size	-0.538***	-0.538***	-0.552***	-0.531***	-0.528***	-0.538***
	[0.10]	[0.10]	[0.11]	[0.11]	[0.11]	[0.10]
Foreign-owned	-0.131**	-0.131**	-0.137**	-0.145**	-0.147**	-0.131**
	[0.057]	[0.057]	[0.059]	[0.061]	[0.062]	[0.057]
Per capita GDP (log)	-0.459***	-0.534***	-0.535***	-0.402***	-0.337***	-0.319***
	[0.022]	[0.013]	[0.013]	[0.015]	[0.015]	[0.0097]
Work days lost-strikes	0.0113*	0.0113*	0.0116*	0.0135*	0.0136*	0.0113*
	[0.0063]	[0.0063]	[0.0063]	[0.0070]	[0.0071]	[0.0063]
Federal	-0.283***					
	[0.015]					
Parliamentary system		0.197***				
		[0.017]				
Political system			0.284***			
(semi parliamentary)			[0.014]			
Political system			0.631***			
(semi presidential)			[0.017]			
Political system			-0.198***			
(presidential)			[0.018]			
Presidential Power Index				0.0149***		
				[0.0029]		
Executive constraints					-0.117***	
					[0.0096]	
Presidential veto						0.307***
						[0.021]
Constant	-11.61**	-11.28**	-10.87*	-12.04**	-11.67**	-13.03**
	[5.52]	[5.49]	[5.62]	[5.72]	[5.76]	[5.43]
Observations	5665	5665	5512	5296	5200	5665

Notes: Robust standard errors in brackets, clustered at country level. *** p<0.01, ** p<0.05, * p<0.1. Federal is a dummy variable that takes the value of 1 if the country's constitutions determines it to be a federal state, zero otherwise (the source is Armingeon and Careja, 2004). Parliamentary system is a dummy variable that takes the value of 1 if the country's constitutions determines it to be a parliamentary state, zero otherwise (the source is Keefer, 2005). Political system is a categorical variable from Armingeon and Careja (2004) that classifies political systems into four types: parliamentary (the reference category above), semi parliamentary, semi presidential, and presidential. Armingeon and Careja (2004) also provide the Presidential Power Index which reflects 29 powers given to the president by the country's constitution. The level of constraints on the Executive is from the Polity IV data set. Presidential veto is a dummy variable that takes the value of 1 if the president has extensive veto power, zero otherwise (the source is Tsebelis and Rizova, 2006).

Table 5.
Electoral Systems as Determinants of Lobbying and of Corruption:
Probit Estimates for Sample of Firms in 26 Countries in 2002
(Dependent Variable is a Dummy for Lobby Membership, with yes equal to 1, zero otherwise, or
Corruption defined as whether firm spends more than 10% of revenue in bribes)

	Lobbying			Corruption		
	(1)	(2)	(3)	(4)	(5)	(6)
Corruption	0.0204	0.0745	0.0126			
	[0.036]	[0.071]	[0.046]			
Lobbying				0.0139	0.061	-0.00182
				[0.034]	[0.066]	[0.041]
Year started	-0.0039***	-0.0036***	-0.00407***	0.00820*	0.00732**	0.00738***
	[0.0014]	[0.0012]	[0.0013]	[0.0046]	[0.0032]	[0.0028]
Medium size	0.560***	0.541***	0.548***	-0.236*	-0.273***	-0.225***
	[0.039]	[0.058]	[0.044]	[0.13]	[0.097]	[0.078]
Large size	0.828***	0.729***	0.823***	-0.515***	-0.626***	-0.492***
	[0.078]	[0.11]	[0.055]	[0.14]	[0.13]	[0.095]
Foreign-owned	0.346***	0.287***	0.315***	-0.0673	-0.112**	-0.146**
	[0.088]	[0.080]	[0.068]	[0.062]	[0.054]	[0.059]
Per capita GDP (log)		-0.273***	1.074***		0.0624***	-0.306***
		[0.0086]	[0.012]		[0.012]	[0.016]
Work days lost-strikes	0.000634	-0.00115	0.000809	0.0125	0.0102	0.0110*
	[0.0057]	[0.0060]	[0.0065]	[0.0086]	[0.0071]	[0.0063]
Ballot Structure (*PINDP*)	-0.682***			0.0116		
	[0.024]			[0.024]		
Closed List		0.201***			0.194***	
		[0.012]			[0.021]	
Mean District Magnitude			-0.0142***			0.00387***
			[0.000089]			[0.00020]
Constant	6.873**	8.847***	-0.77	-17.25*	-16.29***	-13.18**
	[2.78]	[2.39]	[2.51]	[9.14]	[6.32]	[5.58]
Observations	3072	4945	5417	3072	4945	5417

Notes: Robust standard errors in brackets, clustered at country level. *** p<0.01, ** p<0.05, * p<0.1. PINDP is from Persson et al. (2003) and reflects the ballot structure (use and extent of closed lists). Closed list and Mean District Magnitude are from Keefer (2005). Closed list is a dummy variable that takes the value of 1 of closed lists are used, zero otherwise.

Table 6.
Lobbying and Corruption as Determinants of Political Influence:
Probit Estimates for Sample of Firms in 26 Countries in 2002
(Dependent variable is whether firm sees itself as influential vis-à-vis government)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lobbying	0.670***	0.650***	0.670***	0.668***	0.649***	0.670***	0.668***
	[0.057]	[0.061]	[0.057]	[0.063]	[0.060]	[0.057]	[0.063]
Corruption	-0.0149	-0.0308	-0.0149	-0.0213	-0.0196	-0.0149	-0.0213
	[0.074]	[0.073]	[0.074]	[0.079]	[0.073]	[0.074]	[0.079]
Year started	-0.0065***	-0.00639***	-0.00647***	-0.00613***	-0.00648***	-0.00647***	-0.00613***
	[0.00100]	[0.0010]	[0.00100]	[0.0011]	[0.0010]	[0.00100]	[0.0011]
Medium size	0.414***	0.403***	0.414***	0.380***	0.400***	0.414***	0.380***
	[0.063]	[0.067]	[0.063]	[0.071]	[0.066]	[0.063]	[0.071]
Large size	0.713***	0.707***	0.713***	0.737***	0.706***	0.713***	0.737***
	[0.078]	[0.083]	[0.078]	[0.086]	[0.082]	[0.078]	[0.086]
Foreign-owned	0.112*	0.107*	0.112*	0.127**	0.104*	0.112*	0.127**
	[0.061]	[0.062]	[0.061]	[0.062]	[0.061]	[0.061]	[0.062]
Per capita GDP (log)	-0.479***	0.0315*	0.0182	-0.0543***	0.0648***	0.016	-0.0621***
	[0.011]	[0.017]	[0.023]	[0.018]	[0.019]	[0.015]	[0.021]
Work Days Lost	0.00539	0.00770*	0.00539	0.0111	0.00854**	0.00539	0.0111
(Strikes)	[0.0040]	[0.0041]	[0.0040]	[0.0070]	[0.0043]	[0.0040]	[0.0070]
Parliamentary(dummy)	0.641***						
	[0.030]						
Constraints on		-0.00946					
executive		[0.0077]					
Federal			0.336***				
			[0.015]				
Independent media				0.0169			
				[0.010]			
Presidential Power Index					0.0109***		
					[0.0028]		
Elect system (modified prop)						-0.454***	
						[0.022]	
Elect system						-0.792***	
(mixed)						[0.019]	
Elect system (majoritarian)						-0.625***	
						[0.020]	
Democratic political process							0.0161
							[0.0100]
Constant	15.69***	11.12***	11.31***	11.34***	10.85***	12.12***	11.41***
	[1.93]	[2.14]	[2.05]	[2.26]	[2.14]	[2.01]	[2.26]
Sector fixed-effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed-effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5665	5200	5665	4811	5296	5665	4811
R-squared	0.1802	0.1551	0.166	0.1594	0.1596	0.166	0.1594

Notes: Robust standard errors in brackets, clustered at country level. *** p<0.01, ** p<0.05, * p<0.1. Dependent variable is political influence (which takes the value of 1 if firms sees himself as influential vis-à-vis government rules and regulations, and zero otherwise).

Table 7.
Potential Endogeneity of Lobbying and Corruption as Determinants of Political Influence:
Instrumental Variables Probit Estimates for Sample of Firms in 26 Countries in 2002
(Endogenous variable is whether firm sees itself as influential vis-à-vis government)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lobbying	0.644***	1.901***	1.789***	1.236**	0.512*	0.905***	0.512*
	[0.067]	[0.43]	[0.48]	[0.54]	[0.29]	[0.32]	[0.29]
Corruption	3.5	-0.0318	1.679	1.856	1.784	1.831	1.784
	[2.82]	[0.058]	[2.50]	[2.44]	[1.55]	[2.38]	[1.55]
Year started	-0.0111***	-0.00508***	-0.00737**	-0.00824***	-0.00851***	-0.00856***	-0.00851***
	[0.0039]	[0.0013]	[0.0036]	[0.0029]	[0.0023]	[0.0032]	[0.0023]
Medium size	0.636***	0.206**	0.332	0.433***	0.530***	0.491***	0.530***
	[0.19]	[0.090]	[0.21]	[0.099]	[0.12]	[0.16]	[0.12]
Large size	1.080***	0.406***	0.612*	0.730***	0.965***	0.848***	0.965***
	[0.31]	[0.12]	[0.33]	[0.16]	[0.18]	[0.25]	[0.18]
Foreign-owned	0.214*	0.00439	0.0644	0.098	0.199**	0.145	0.199**
	[0.11]	[0.067]	[0.11]	[0.079]	[0.081]	[0.092]	[0.081]
Per capita GDP	-0.0508	-0.476***	-0.361*	-0.215**	0.193	-0.132	0.193
(log)	[0.19]	[0.11]	[0.21]	[0.094]	[0.17]	[0.14]	[0.17]
Constant	20.78***	12.45***	15.82***	16.96***	13.63***	16.62***	13.63***
	[6.14]	[2.45]	[5.59]	[5.20]	[3.56]	[5.23]	[3.56]
Sector fixed-effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed-effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F Corruption Equation	10.85		11.12	11.14	10.36	11.12	10.36
{p-value}	{0.0000}		{0.0000}	{0.0000}	{0.0000}	{0.0000}	{0.0000}
F Lobbying Equation		44.22	45.39	49.63	45.68	45.39	45.68
{p-value}		{0.0000}	{0.0000}	{0.0000}	{0.0000}	{0.0000}	{0.0000}
Observations	5665	5665	5665	5417	4811	5665	4811
Wald chi2	587.28	668.05	587.28	604.67	502.41	619.38	502.41
{p-value}	{0.0000}	{0.0000}	{0.0000}	{0.0000}	{0.0000}	{0.0000}	{0.0000}

Standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1
Instruments, columns 1 to 3: all above plus parliamentary, and days lost to strikes. To this list, column 4 adds mean district, column 5 political process, column 6 political alternation and column 7 independent media.
The rows labeled F Lobbying (or Corruption) Equation reports the p-value associated with the null hypothesis that the instruments are jointly insignificant in the first-stage regression.

Table 8.
Lobbying and Corruption as Determinants of Firm Performance (Sales Growth)
OLS Estimates for Sample of Firms in 26 Countries in 2002
(Dependent variable is firms sales growth from 1999 to 2002)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lobbying	13.02***	13.98***	13.02***	15.03***	13.55***	13.02***	15.03***
	[2.87]	[3.12]	[2.87]	[3.13]	[3.10]	[2.87]	[3.13]
Corruption	0.86	1.03	0.86	1.496	1.028	0.86	1.496
	[2.28]	[2.41]	[2.28]	[2.61]	[2.39]	[2.28]	[2.61]
Year started	0.349***	0.358***	0.349***	0.378***	0.360***	0.349***	0.378***
	[0.058]	[0.061]	[0.058]	[0.062]	[0.061]	[0.058]	[0.062]
Medium size	8.622***	8.914***	8.622***	9.013***	8.578***	8.622***	9.013***
	[2.50]	[2.68]	[2.50]	[2.92]	[2.65]	[2.50]	[2.92]
Large size	15.02***	15.56***	15.02***	15.59***	15.47***	15.02***	15.59***
	[4.08]	[4.38]	[4.08]	[4.80]	[4.33]	[4.08]	[4.80]
Foreign-owned	9.880***	9.936***	9.880***	9.597**	10.14***	9.880***	9.597**
	[3.07]	[3.29]	[3.07]	[3.49]	[3.25]	[3.07]	[3.49]
Per capita GDP (log)	15.06***	6.238***	0.5	0.917	6.498***	2.795***	-1.308
	[0.53]	[0.71]	[0.93]	[0.89]	[0.77]	[0.48]	[0.95]
Work Days Lost	-0.103	-0.0268	-0.103	0.0136	-0.0729	-0.103	0.0136
(Strikes)	[0.30]	[0.37]	[0.30]	[0.64]	[0.36]	[0.30]	[0.64]
Parliamentary(dummy)	-4.617***						
	[0.64]						
Constraints on		-5.686***					
executive		[0.37]					
Federal			-4.623***				
			[0.63]				
Independent media				4.839***			
				[0.35]			
Presidential Power Index					1.594***		
					[0.099]		
Elect system (modified prop)						8.693***	
						[0.91]	
Elect system						15.70***	
(mixed)						[0.61]	
Elect system (majoritarian)						33.75***	
						[1.00]	
Democratic political process							
							[0.33]
Constant	-818.4***	-741.5***	-695.4***	-778.8***	-793.0***	-727.3***	-757.4***
	[114]	[123]	[116]	[127]	[123]	[116]	[127]
Sector fixed-effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed-effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	5665	5200	5665	4811	5296	5665	4811
R-squared	0.06	0.06	0.06	0.06	0.06	0.06	0.06

Notes: Robust standard errors in brackets, clustered at country level. *** p<0.01, ** p<0.05, * p<0.1. Dependent variable is the growth rate of sales of the firm between 1999 and 2002.Robust standard errors in brackets (country clustered).

Table 9.
Potential Endogeneity of Lobbying and Corruption as Determinants of Firm Performance (Sales Growth)
Instrumental Variables Estimates for Sample of Firms in 26 Countries in 2002
(Endogenous variable is firms sales growth from 1999 to 2002)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Lobbying	13.88***	73.64***	75.58***	70.38***	76.60***	75.58***	76.60***
	[2.86]	[22.6]	[21.8]	[20.6]	[23.3]	[21.8]	[23.3]
Corruption	-17.32	-0.208	-25.8	-17.62	-25.18	-25.8	-25.18
	[38.7]	[2.91]	[39.3]	[38.7]	[40.6]	[39.3]	[40.6]
Year started	0.353***	0.406***	0.442***	0.445***	0.440***	0.442***	0.440***
	[0.079]	[0.052]	[0.075]	[0.074]	[0.089]	[0.075]	[0.089]
Medium size	8.480**	-1.454	-3.196	-3.001	-2.054	-3.196	-2.054
	[3.44]	[4.88]	[5.12]	[5.23]	[5.53]	[5.12]	[5.53]
Large size	14.97***	0.313	-2.671	-1.362	-1.184	-2.671	-1.184
	[5.35]	[8.64]	[8.70]	[9.11]	[9.42]	[8.70]	[9.42]
Foreign-owned	9.976**	4.97	3.888	4.936	2.86	3.888	2.86
	[3.74]	[3.18]	[3.86]	[4.01]	[4.72]	[3.86]	[4.72]
Per capita GDP	2.182	-12.35**	-14.06**	-12.46**	-22.45***	-14.06**	-22.45***
(log)	[1.80]	[5.81]	[5.48]	[5.26]	[7.76]	[5.48]	[7.76]
Constant	-717.8***	-732.6***	-787.0***	-805.3***	-700.9***	-787.0***	-700.9***
	[145]	[113]	[147]	[143]	[173]	[147]	[173]
Sector fixed-effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed-effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
F Corruption Equation	10.85		11.12	11.14	10.36	11.12	10.36
{p-value}	{0.0000}		{0.0000}	{0.0000}	{0.0000}	{0.0000}	{0.0000}
F Lobbying Equation		44.22	45.39	49.63	45.68	45.39	45.68
{p-value}		{0.0000}	{0.0000}	{0.0000}	{0.0000}	{0.0000}	{0.0000}
Observations	5665	5665	5665	5417	4811	5665	4811

Standard errors in brackets *** p<0.01, ** p<0.05, * p<0.1
Instruments, columns 1 to 3: all above plus Parlamentary, and days lost to strikes. To this list, column 4 adds mean district, column 5 political process, column 6 ideological alternation and column 7 independent media.
The rows labeled F Lobbying (or Corruption) Equation reports the p-value associated with the null hypothesis that the instruments are jointly insignificant in the first-stage regression.