Comments welcome
September 21, 2008

Stealing from Thieves:

Firm Governance and Performance when States are Predatory

Art Durnev and Larry Fauver*

JEL classification: G15 (International Financial Markets), G32 (Financing Policy; Financial Risk and Risk Management; Capital and Ownership Structure), G38 (Government Policy and Regulation), K22 (Corporation and Securities Laws), K42 (Illegal Behavior and Enforcement of Law)

Keywords: Managerial Incentives, Corruption, Expropriation, Property Rights Protection, Taxes, Governance, Disclosure, and Valuation

* Art Durnev, Assistant Professor of Finance, Desautels Faculty of Management, McGill University, 1001 Sherbrooke Street West, Montreal, Quebec H3A 1G5, Canada. Tel: (514) 398-5394. Fax (514) 398-3876. Email: art.durnev@mcgill.ca.

Larry Fauver, Assistant Professor of Finance and Research Fellow, Corporate Governance Center, University of Tennessee, 424 Stokely Management Center, Knoxville, TN 37996-0540, U.S. Tel: (865) 974-1722. E-mail: lafauver@utk.edu.

We are grateful for helpful comments and suggestions by Reuven Brenner, Francesca Carrieri, Susan Christoffersen, Adolfo De Motta, Amrita Nain, and Vihang Errunza, and to the participants at the McGill University Desautels Faculty workshop. Art Durnev's research is supported by the Institut de Finance Mathématique de Montréal (IFM2). We are thankful to Nick Bradley, Ian Byrne, George Dallas, Laurie Kizik, and Paul Wanner for sharing with us data on CLSA governance scores, S&P transparency rankings, and ISS governance quotients. Burcin Col provided excellent research assistance.

Stealing from Thieves:

Firm Governance and Performance when States are Predatory

Art Durnev and Larry Fauver

Abstract

We investigate how predatory government policies (expropriation, lack of property rights protection, corruption, crime) interact with managerial incentives in shaping firm governance structure. Our model shows that owners have lower incentives to encourage value-maximization by managers if the government is likely to expropriate firm profits. This result emerges because it is more difficult for governments to seize firm profits that managers have already stolen and hidden from the owners. The model also demonstrates that the positive valuation effect of stronger firm governance is lower in states with more predatory governments. We test these predictions using several distinct data sets on firm governance and disclosure practices, and the business and financing obstacles firms face due to government intervention. The empirical results are consistent with the model's predictions. Specifically, we find that firms located in countries with more predatory governments practice weaker governance and disclose less information. Further, the previously documented positive relation between firm governance and firm performance is weaker or disappears altogether when governments pursue predatory policies. Finally, in countries with more predatory governments, firm-specific characteristics are less important in explaining variation in governance and firms have more similar governance structures.

"Even those companies that are well run and are making a lot of money don't wish to audit themselves in keeping with international accounting principles because if they do the government will take what they are making away."

Black and Kraakman (1996) quoting investment banker Boris Jordan in Moscow (Russia)

The progressive globalization of capital and product markets has put pressure on companies to practice better governance, regardless of their location on the world map. Recent studies show that good governance (whether imposed by laws or implemented on an elective basis) yields higher returns for shareholders, making the effort of improving governance worth the cost (see, for example, La Porta et al. (2002); Doidge, Karolyi, and Stulz (2003); Gompers, Ishi, and Metrick (2003); Klapper and Love (2004); Durnev and Kim (2005); Black, Jang, and Kim (2006a); Aggarwal et al. (2007); Chhaochharia and Laeven (2007)).

Despite the growing evidence on the value-enhancing effects of better governance, the question of how government policies towards private businesses interact with managerial incentives in shaping firm governance remains mostly unexplored. The few notable exceptions are the papers by Desai and Dharmapala (2004) and Desai, Dyck, and Zingales (2006), which examine the effects of firms' tax evasion strategies and the enforcement of the tax code on valuation and governance, and Stulz (2005), who develops a model of managerial diversion when state expropriate firms' profits.

The conventional governance models (see, for example, Friedman et al. (2000) and Shleifer and Wolfenzon (2002)) assume that two main players shape a firm's governance policy: self-dealing managers and minority investors. The notion that governments themselves play an important role by affecting the cash flow distribution between minority investors and controlling shareholders has been largely ignored. This paper extends research in this area by recognizing that firms often operate in countries in which state rulers are authoritarian, interfering with firms' affairs through the solicitation of bribes, overregulation, a disregard of property rights, confiscatory taxation, and outright expropriation of firm assets.[1]

Specifically, in this paper we build a theoretical model of governance in the presence of predatory governments and empirically examine the following questions:

- How do government policies towards private businesses enhance or obstruct firms' incentives to practice good governance and increase transparency?
- How does the relation between firm governance and performance change if one takes into consideration obstacles imposed by governments?

[1] State interference is not only present in developing countries but also in developed ones. Roe (2003) and Gourevitch and Shinn (2006) discuss how firms alter their governance structures in response to intervention from states and unions in Western European countries.

- What firm and industry characteristics explain firms' governance choices in countries where regulators pursue predatory policies?

We consider a "twin-agency problem" model similar to Stulz (2005) wherein both states and managers can divert resources from a company. Taking into account the incentives of each, the company owners set up a governance structure that depends on exogenous parameters: shareholder protection laws and the degree of state predation. Our model solves for the equilibrium levels of government expropriation, managerial diversion, firm governance structure, and firm valuation.

The model predicts that when the risk of government expropriation exists, owners establish a firm governance structure that provides incentives for managers to deviate from profit maximization. Intuitively, managers have greater incentives to divert firm income when the likelihood of expropriation by the government is larger. This result emerges because it is more difficult for governments to seize firm profits that managers have already stolen and hidden from the owners. Thus, diversion by managers complements expropriation by the states. The owners consent to managerial diversion because a greater amount would otherwise be seized by the governments. For example, firm owners may prefer managerial diversion to government expropriation if it is easier for the governments to expropriate a fixed fraction of profits from larger or more profitable companies.[2] Thus, if the risk of government expropriation is sufficiently high, firm owners benefit from distorting managerial incentives from pure value-maximization by implementing a weak governance structure. Accordingly, we predict that, all else equal, firms located in countries with predatory governments have lower incentives to practice good governance and increase transparency.

A number of papers explore the valuation effect of sound governance practices (for example, Black, Jang, and Kim (2006a); Aggarwal et al. (2007); see Denis and McConnell 2003 for a comprehensive list). These papers mostly document a positive monotonic relation between firm governance and valuation. Other authors (Klapper and Love (2004); Durnev and Kim (2005); Bruno and Claessens (2007); Chhaochharia and Laeven (2007)) argue that, with regard to firm valuation, sound firm governance can partially compensate for deficiencies in investor protection laws. In this paper, we examine how state policies toward private businesses affect

[2] Black and Kraakman (1996) presents the following anecdotal evidence: "*[In Russia,] the supposedly confidential financial statements required by the tax laws, once given to the government, are often delivered to the mafia by corrupt officials. In this environment, investors do not even want the companies in which they invest to report profits honestly. The risk that managers will steal hidden profits is preferable to the certainty that the government or the mafia will take even more after honest disclosure.*"

the conventional firm governance-performance relation. According to our model, investors place a valuation discount on firm governance in the presence of government expropriation. Thus, the positive valuation effect of stronger firm governance is predicted to be weaker in states with more predatory governments.

Some progress has been made in understanding firms' choice of governance structures. Using a sample of governance provisions for U.S. firms, Gillan, Hartzell, and Starks (2005) present evidence that corporate governance structures are endogenous responses to the costs and benefits that firms face. They identify several firm and industry characteristics that explain the choice of governance: investment opportunities, product uniqueness, degree of competition, informational environment, and leverage. In an international setting, firms with more profitable investment opportunities and greater need for external financing are shown to have better governance and transparency (Durnev and Kim (2005); Black, Jung, and Kim (2006b); Anand, Milne, and Purda (2007)). However, Doidge, Karolyi, and Stulz (2006) indicate that in countries with underdeveloped financial markets, firm governance is mainly explained by country rather than firm characteristics. We provide an additional rationale for firm and industry factors to play a lesser role in explaining variation in firm governance practices in developing countries. Specifically, firm-specific drivers to improve governance are less important when firms operate in environments characterized by heavy state interference. Thus, all else equal, firm governance structures are expected to be more similar in countries with more predatory governments.

We test the model's predictions using four comprehensive data sets covering more than 80 countries on international firm governance, transparency, and the business and financing obstacles governments impose: Credit Lyonnais Securities Asia's (CLSA) 2000-2001 *Governance Indicators*, S&P's 1997-2002 *Transparency Rankings*, Institutional Shareholder Service's 2003-2006 *International Corporate Governance Quotients*, and the World Bank's 2000 *World Business Environment Survey*. While these data sets have been used in previous research (see Klapper and Love (2004); Ayyagagri, Demirgüç-Kunt, and Maksimovic (2005, 2006); Durnev and Kim (2005); Aggarwal and Williams (2006); Beck, Demirgüç-Kunt, and Maksimovic (2006); Doidge, Karolyi, and Stulz (2006); Khanna, Kogan, and Palepu (2006); Aggarwal et al. (2007); Bruno and Claessens (2007); Chhaochharia and Laeven (2007)), to the best of our knowledge we are the first to explore them in a unified setting. The panel structure of some of the data sets also helps us address the endogeneity problem that often plagues conventional governance studies.

The empirical results are consistent with the model's predictions. In particular, we find that firms located in countries with more predatory governments practice weaker governance

and disclose less information. Furthermore, the previously documented positive relation between firm governance and firm performance is weaker or disappears altogether when governments pursue predatory policies. In addition, we observe that firm-specific characteristics are less important in explaining the variation in governance structures. Finally, we show that firms' governance structures share greater similarities in countries with more predatory governments. Our results appear to be robust across the four data sets. Furthermore, our findings survive a battery of robustness checks relating to endogeneity, errors-in-variables, sample selection, additional control variables, and alternative definitions of the main variables.[3]

Improving governance standards is vital for establishing and maintaining well-functioning capital markets. Our findings together suggest that governments that pursue predatory policies aggravate firm governance problems. The policy implications of this result are twofold. First, when government capture is high, strengthening securities laws may not improve firm governance unless regulators ensure concomitant improvements in the quality of government policies. Second, countries that do not protect private businesses from government predation but lobby extensively for stricter securities laws should first ensure better protection of private property rights.

This paper is organized as follows. Section I provides a literature review. We provide a case study of government predation in Section II. The model is presented in Section III. Section IV describes our data and variables, and Section V presents empirical results. Section VI discusses the robustness of our findings. Finally, Section VII concludes.

I. Literature Review

Conventional governance models (for example, LaPorta et al. (2002); Shleifer and Wolfenzon (2002)) consider managers that divert resources from minority shareholders. These papers generally conclude that stronger investor protection reduces diversion and leads to higher firm valuation and better-developed financial markets.

Several papers incorporate a regulator into a traditional manager-shareholder model and examine how managerial incentives change when companies avoid taxes through various tax sheltering schemes. In these papers, tax sheltering and diversion from minority shareholders

[3] In a separate project, we examine how companies can protect themselves from predatory government policies by becoming more indispensable to the states through altering their capital structure, asset composition (tangible vs. intangible assets), employment policies, and degree of international exposure. Section VI discusses these issues in more detail.

are viewed as complements because it is easier to divert resources from income that is already hidden from the tax authorities. Specifically, Desai, Dyck, and Zingales (2006) show that stricter tax enforcement improves firm governance because enforcement involves the verification of financial statements' numbers. Desai and Dharmapala (2004, 2006) investigate how firm governance interacts with firm incentives to use tax shelters and the impact of tax sheltering on firm valuation. In their models, sheltering raises shareholder wealth for firms with strong governance. Stulz (2006) refers to the complementary relation between managerial diversion and state expropriation the "twin-agency problem" and discusses how state quality affects investment strategies and corporate ownership.

Although these models share one feature that is similar with ours, namely, the complementary relation between state expropriation and managerial diversion, the model developed in this paper differs because firm governance structure is viewed as the outcome of government interference. Moreover, the aforementioned papers do not investigate how the relation between governance and valuation changes under government predation.

A number of papers examine why private businesses move "underground," considering the effects of a mafia presence, corruption, and discretionary taxation policies. Johnson, Kaufmann, and Zoido-Lobaton (1998) and Friedman et al. (2000) argue that it is corruption and not just higher tax rates that drive businesses underground. Indeed, they argue that entrepreneurs operate underground not to avoid official taxes but to reduce the burden of bureaucracy and corruption. Alexeev, Janeba, and Osborne (2004) examine the trade-offs of paying taxes and relying on government protection compared to running business unofficially and seeking mafia defense.

The direct effects of corruption on economic development are tested in Mauro (1995), who finds that corruption leads to lower investment and in turn lower economic growth. Lee and Ng (2006) investigate how corruption affects corporate valuations and find that firms in more corrupt countries trade at a discount because of higher required rates of return on equity.

Cheung et al. (2007) analyze connected transactions between Chinese publicly listed-firms and state-owned enterprises. They document significant expropriation of resources from these firms by local governments.

Our paper is also related to the emerging literature on the presence and value of political connections. Fisman (2001) examines how political ties of Indonesian companies affect their stock prices. He documents that Indonesian firms close to Suharto (Indonesia's authoritarian president from 1967 to 1998) lost more value in response to allegations of corruption within

Suharto's government and also with Suharto's health problems. Rajan and Zingales (2003) show that incumbent companies can use laws and regulations to their advantage by hindering financial development that would otherwise benefit young companies. Faccio (2005) examines the value of political loyalty and finds a positive valuation effect when corporate directors belong to ruling parties. Faccio, Masulis, and McConnell (2005) document that politically connected firms are more likely to be bailed out during financial distress. Leuz and Oberholzer (2006) study the role of political ties for firms' financing strategies and their long-run financial performance. They find that firms with political connections are less likely to rely on publicly traded securities. Boubarki, Cosset, and Saffar (2006) and Bertrand et al. (2006) investigate the origins of political ties and argue that privatized firms with greater government residual ownership are more likely to become politically loyal.

II. A Case of Predation: YUKOS

To illustrate the impact of government predation, we provide a case study of the Russian oil firm YUKOS. The story of YUKOS received a lot of attention in popular business sources such as the *Economist*, *Financial Times*, *New York Times*, and *Wall Street Journal*, as well as in a number of academic papers (see, for instance, Goriaev and Sonin (2005)).

YUKOS was a highly profitable petroleum company in Russia that, until recently, was controlled by former Russian billionaire Mikhail Khodorkovsky. YUKOS was one of the world's largest non-state oil companies, producing 20% of Russian oil and accounting for 2% of the world's production. Its assets were acquired by controversial means from the Russian government during the privatization process of the early 1990s.

In the 1990s, YUKOS' governance, like that of most other large Russian companies, was very weak by international standard, and Black, Kraakman, and Tarassova (2000) document multiple shareholder abuses by YUKOS following the 1998 Russian economic crisis. Since 1999, however, YUKOS has jumped ahead of other large Russian companies in developing new standards of corporate governance and transparency. In fact, YUKOS was the first Russian company to report according to the international accounting standards. Between 1998 and 2003, the company experienced a tenfold growth in assets and market capitalization and was continuously praised by many ratings agencies for its sound governance and disclosure practices.

During the 2003 political dispute between the Russian government and YUKOS' largest shareholder, Mikhail Khodorkovsky, a number of law enforcement and government regulatory

agencies took many predatory actions against the company. Coordinated attacks were directed toward YUKOS' core shareholders in the media. On December 2, 2003, the Ministry of Taxation alleged that YUKOS concealed at least the equivalent of 5 billion U.S. dollars in taxes. A corporate presentation of YUKOS from December 2004 showed that the total tax burden for 2000, 2001, 2002, and 2003 was 67%, 105%, 111%, and 83% of the company's declared revenue. According to a resolution of the Council of Europe,

> "*Intimidating action by different law enforcement agencies against YUKOS and its business partners and other institutions linked to Mr. Khodorkovsky and his associates and the careful preparation of this action in terms of public relations, taken together, give a picture of a co-coordinated attack by the state…The circumstances of the sale by auction of Yuganskneftegaz [a subsidiary of YUKOS] to 'Baikal Finance Group' and the swift takeover of the latter by state-owned Rosneft raises additional issues related to the protection of property…YUKOS was forced to sell off its principal asset, by way of trumped-up tax reassessments leading to a total tax burden far exceeding that of YUKOS' competitors, and for 2002 even exceeding YUKOS' total revenue for that year.*"

The subsequent grim events against YUKOS included the seizure of YUKOS' assets, the arrest of Mikhail Khodorkovsky, and ultimately, Khodorkovsky's detention in a Siberian prison camp.[4] Using questionable techniques, the remaining assets of the once transparent and profitable company were auctioned off to politically loyal state companies.

Goriaev and Sonin (2005) document that investors perceived the attacks on YUKOS as a strong signal that the state would expropriate from other companies through arbitrary tax enforcement. Goriaev and Sonin (2005) show further that the impact of the attacks on YUKOS on other firms' performance depended on the companies' ownership structure (state or private) and level of transparency. For example, the price reaction was more negative for more transparent companies than for less transparent ones. Presumably, investors expected greater government intervention in transparent companies, as it would be easier to extract rents from such companies.

III. Model and Predictions

Using a simple framework, we show that the predictions of a standard governance-firm valuation model (Johnson et al. (2000); LaPorta et al. (2002); Shleifer and Wolfenzon (2003))

[4] On February 5 of 2007, new charges of embezzlement and money laundering were brought against Khodorkovsky, just months before he was to become eligible for parole, and one year before the next Russian presidential election.

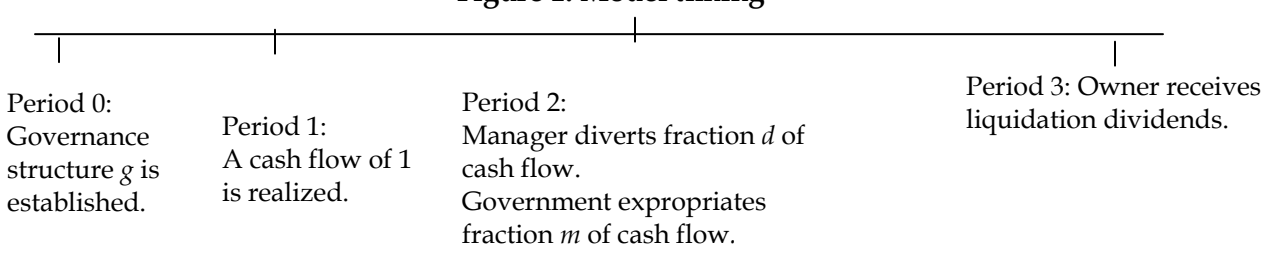
change if we integrate a predatory government into the model. The intuition behind some of our results is similar to that in Stulz (2006), who calls the complementary relation between managerial diversion and state expropriation the "twin-agency problem." Moreover, our model shares common features with taxation and governance models presented in Friedman et al. (2000), Desai and Dharmapala (2004, 2006), and Desai, Dyck, and Zingales (2006). Note that we acknowledge the existence of other mechanisms that may lead to our predictions; we discuss such mechanisms later in this section.

A. Setup

We consider an economy with a single representative firm and a state. There are four periods 0, 1, 2, and 3. In period 0, the owner of the firm hires a risk-neutral manager and offers her a linear compensation contract gV, where V is firm value. Parameter g represents the quality of the firm's corporate governance, where quality of corporate governance is defined as the degree to which the manager's incentives are aligned with firm value maximization. It can be viewed as Desai and Dharmapala's (2004) "high-powered incentives," that is, incentives provided by means of a compensation contract or managerial ownership.[5]

In period 0, the risk-neutral owner controls 100% of the company and chooses the level of g that maximizes expected firm value.[6] In period 1, a cash flow of 1 is realized. In period 2, the manager diverts a fraction of cash flow equal to d, and the government simultaneously expropriates fraction m from the post-diversion value $(1 - d)$.[7] In period 3, the firm is liquidated and the owner receives the liquidating dividends. Figure 1 summarizes the timing of the model.

Figure 1: Model timing



[5] The model generates similar predictions using alternative definitions of corporate governance (see the end of this section).

[6] In general, managerial compensation is a linear function of gV, $A + B(gV)$, where A and B are constants ($B > 0$). Since the manager is risk-neutral, the values of A and B become irrelevant and the manager maximizes gV. The owner maximizes firm value minus the managerial opportunity cost ω (compensation the manager would receive working elsewhere). This is equivalent to the owner's firm value maximization because the owner can promise the compensation parameter A that sets $A + B(gV)$ equal to the opportunity cost ω. Fershtman and Judd (1987) provide a detailed discussion of these considerations.

[7] The results remain unchanged if the state expropriates before or after managerial diversion.

Managers divert the fraction d of revenue that is not shared with the owner or the state. Diversion is costly, with the cost being equal to $cd^2/2$. Parameter c is larger in countries with stricter anti-diversion laws (better investor protection laws).[8] The manager's objective is to maximize her total wealth, which consists of the amount of funds diverted d plus governance-enhanced firm value net of amounts diverted (d) and expropriated by the government (m), $g(1 - d)(1 - m)$, less the cost of diversion $cd^2/2$. That is, the manager chooses d to maximize

$$M = d + g(1-d)(1-m) - cd^2/2 \ . \tag{1}$$

We assume that the government is completely "Machiavellian." Thus, unlike the case of taxation, the resources expropriated are consumed entirely and nothing is spent on improving the legal environment, enhancing the economic infrastructure, or establishing anti-corruption campaigns.[9] We also assume that the quality of the legal regime c and the degree of state predation are independent. Our model predictions do not change if countries with more benevolent governments are modeled to have better corporate laws.[10]

The government expropriates fraction m of post-diversion firm value $(1 - d)$ and receives $(1 - d)m$. Expropriation costs the government $(1 - d)^{\alpha}m^2k/2$, which decreases with state predation $(1/k)$. Parameter $0 \leq \alpha < 1$ measures the elasticity of diversion from smaller companies relative to larger ones, such that it is costlier for government to seize, for example, 50% of the firm profits from a smaller company than from a larger one. We think this assumption is reasonable because expropriation from small firms can lead to firm bankruptcy and worker layoffs, creating negative publicity for the government and increasing the chances of eventual detection of expropriation and subsequent punishment. In a dynamic setting, the government might also

[8] The results also hold if the owner of the firm holds less than 100% of the firm and minority shareholders own the rest. In our case, the minority shareholders can be viewed as firm owners who coordinate their actions.

[9] Although tax revenues can be used to improve the efficacy of the legal environment, selective taxation and unofficial levies imposed by the mafia place a burden on business activity in many emerging economies. For example, Black and Tarassova (2003) note, "*Corruption and organized crime impose large unofficial taxes on business activity. Official taxes can be equally important. It is a close question whether corruption and organized crime or the tax system was the largest drag on business activity in Russia during the 1990s. Russia's enterprise tax rules during the 1990s embodied almost every flaw one can imagine. The tax rules imposed confiscatory marginal income tax rates, were changed frequently and arbitrarily, were enforced even more arbitrarily, and all this effort produced ever smaller amounts of revenue.*"

[10] Alternatively, one can assume that it is managerial income, $d + g(1 - d)$, from which the state expropriates (as perhaps in case of bribes) and not company income $(1 - d)$. The main predictions of our model do not change if this is the case.

be more concerned about losing a company they can extract rents from if they force a small company to bankruptcy by expropriating large amounts.[11]

For the sake of notational simplicity, we derive our model predictions assuming $\alpha = 0$. The results are identical for any $0 \leq \alpha < 1$. The government's objective function is then to choose m such that it maximizes the expropriated funds net of costs,

$$G = (1-d)m - km^2/2 \ . \tag{2}$$

B. Managerial Diversion and State Expropriation Equilibrium

First, we find managerial diversion d and government expropriation m. Given the equilibrium levels of m and d, we solve for the owner's choice of governance g.

Maximizing Equations (1) and (2) with respect to d and m, respectively, the reaction functions for managerial diversion and state expropriation are

$$d = \frac{1-g(1-m)}{c} \tag{3}$$

and

$$m = (1-d)/k \ . \tag{4}$$

If the state expropriates more (larger m), managers divert a greater fraction of revenue because every dollar stolen from the firm's owners is not shared with the government. However, this effect is lessened if governance is stronger (higher g). State expropriation is lower when managerial diversion d is higher, that is, when there is less revenue left over for the government to seize.

Solving Equations (3) and (4) simultaneously, we obtain the following equilibrium levels of diversion d and state expropriation m as functions of the model's exogenous parameters: firm governance g, country legal environment c, and state predation $(1/k)$:

$$d^* = \frac{g + k(1-g)}{ck + g} \tag{5}$$

and

[11] The following example clarifies these points. Consider a state with predation parameter $(1/k) = 1/2$ and two firms (N and Y) of equal size of \$1. The manager of firm N does not divert ($d_N = 0$), while the manager of firm Y diverts 90% of profits ($d_Y = 90\%$). The costs of state expropriation are then m_N for firm N, and $0.1^{\alpha} * m_Y$ for firm Y. If $\alpha = 0$, the same degree of punishment is imposed on firms Y and N ($m_Y = m_N$), independent of their post-managerial diversion levels. On the other hand, if $\alpha = 1$, then the government has to expropriate 10 times more from firm Y ($m_Y = 10m_N$) than from firm N to incur the same cost. In an intermediate case, for example, $\alpha = 0.5$, then $m_Y = 3.16m_N$. Our contention is that the case of $\alpha = 1$ is the least plausible.

$$m^* = \frac{c+g-1}{ck+g} \ . \tag{6}$$

Managerial diversion decreases as anti-diversion laws become stricter (higher c) and increases as states become more predatory (lower k),

$$\frac{\partial d^*}{\partial c} = -\frac{k(g+k(1-g))}{(ck+g)^2} < 0 \tag{7}$$

and

$$\frac{\partial d^*}{\partial k} = \frac{g(1-g-c)}{(ck+g)^2} < 0 \ . \tag{8}$$

Diversion is lower when firm governance g is stronger as long as the state does not expropriate all of the firm's assets ($m < 1$):

$$\frac{\partial d^*}{\partial g} = \frac{k(c(1-k)-1)}{(ck+g)^2} < 0 \ , \tag{9}$$

where $1+c(k-1) > 0$.

Equilibrium expropriation m^* decreases as the state becomes less predatory:

$$\frac{\partial m^*}{\partial k} = -\frac{c(c+g-1)}{(ck+g)^2} < 0 \ . \tag{10}$$

As investor protection improves (higher c) or firm governance becomes stronger (larger g), a larger fraction of the firm's revenue is expropriated, with

$$\frac{\partial m^*}{\partial c} = \frac{g+k(1-g)}{(ck+g)^2} > 0 \ , \tag{11}$$

$$\frac{\partial m^*}{\partial g} = \frac{c(k-1)+1}{(ck+g)^2} > 0 \ . \tag{12}$$

Although the above signs may seem counterintuitive, they can be explained as follows. As the cost of managerial diversion increases (higher c) or the manager's incentives are more closely tied to value maximization (higher g), managerial diversion decreases, leaving more income for the government to expropriate. As we discussed above, government capture increases if there is more income to be taken from the firm.

C. Firm Governance

Firm value is defined as the amount of funds remaining after diversion and expropriation, $V = (1 - d)(1 - m)$. Using Equation (3), V becomes a function of firm governance structure (g), investor protection (c), and state predation ($1/k$), that is,

$$V = \left[\frac{k(c+g-1)}{(ck+g)}\right]\left[\frac{1+c(k-1)}{(ck+g)}\right], \tag{13}$$

where the first term in the square brackets is *(1-d)* and the second term is *(1-m)*. Firm owners choose governance structure g to maximize V. The first-order condition is

$$\frac{\partial V}{\partial g} = \frac{k(1+c(k-1))(ck-2c-g+2)}{(ck+g)^3} = 0 \ . \tag{14}$$

The governance choice that maximizes firm value is then

$$g^* = ck - 2c + 2 \ . \tag{15}$$

From Equation (15), the optimal firm governance is decreasing in the level of government predation (lower k).

<u>Prediction 1:</u> *In more predatory states, owners set up weaker governance structures.*

Intuitively, if government expropriation risk is high, the owners have incentives to distort managerial incentives from pure value maximization by establishing weaker governance. On the one hand, the owners lose out because now the managers divert more. On the other hand, the owners benefit from the imperfect governance because when the managers divert more, the states expropriate a lower fraction of firm revenues. In equilibrium, the owners prefer managerial diversion to state capture because a greater fraction of firm profits would otherwise be seized by the governments.

D. Firm Valuation

Firms are valued higher in countries with less predatory governments. This result follows from the sign of the partial derivative of firm value with respect to government predation,

$$\left.\frac{\partial V}{\partial k}\right|_{g=g^*} = -(1-m)\frac{\partial d}{\partial k} - (1-d)\frac{\partial m}{\partial k} = \frac{(c+g-1)(ck(c+g-1)+g(c(k-1)+1))}{(ck+g)^3} > 0 \ . \tag{16}$$

<u>Prediction 2:</u> *Firms are valued lower in more predatory states.*

It is noteworthy that the value increase comes from two sources. First, there is a direct effect of lower expropriation under less predatory governments ($\partial m / \partial k < 0$). Second, managers have lower incentives to divert firm resources in less predatory states ($\partial d / \partial k < 0$).

As in many governance or ownership models, in equilibrium governance has no effect on firm value since the governance structure is set up optimally to maximize firm value. However,

our objective is to shed light on the interaction between governance and predation, that is, on how the relation between governance and firm value changes when governments are predatory. The partial derivative of V with respect to g and k when governance is optimal is

$$\left.\frac{\partial^2 V}{\partial g \partial k}\right|_{g=g^*} = \frac{ck(1+c(k-1))}{(ck+g)^3} > 0 \ . \tag{17}$$

<u>Prediction 3:</u> *The relation between firm governance and valuation is weaker in more predatory states.*

The intuition behind this result can be illustrated by considering the extreme cases. When government predation is infinitely expensive, there is no room for government interference and firm value increases monotonically with firm governance. In contrast, when government policies are extremely predatory, that is, when the cost of government expropriation is close to zero, a small decrease in managerial diversion (due to stronger governance) leads to a large increase in state expropriation. In this case, firm value decreases as governance becomes stronger.

Firm governance can be a function of multiple firm and industry parameters, such as investment opportunities, the need for external financing, competitiveness, and informational environment. To keep the model tractable, firm and industry characteristics are left outside the scope of our model. However, we conjecture that firm and industry characteristics matter less in countries in which governments pursue policies of self-enrichment. Extending this argument, we also expect that within-country variation in governance practices is lower in more predatory states, after controlling for variability in firm and industry characteristics that explain firm governance.

<u>Prediction 4:</u> *The sensitivities of firm governance to firm and industry characteristics and within-country variation in governance are lower in more predatory states.*

We admit that there may be reasons other than the ones mentioned above for firms to set up weaker governance structures in more predatory states. For example, politically connected firms are less likely to suffer from government intervention (Fisman (2001); Faccio (2005); Bertrand et al. (2006); Leuz and Oberholzer (2006)). The consumption of benefits that come from preferable treatment by the state requires opaqueness. Thus, such firms are likely to observe inferior governance, and they are more likely to be found in countries with more predatory

governments. One may also reach our predictions using alternative modeling approaches. For example, using a signaling model, Khanna, Kogan, and Palepu (2002) illustrate that profitable firms have fewer incentives to stand out from a "murky pond" of non-transparent companies. Finally, there are various ways to model firm governance. Voluntary firm governance provisions may increase the cost of managerial diversion in a similar fashion to state anti-diversion laws. Durnev and Kim (2005) model firms' governance choice directly as parameter d, the proportion of funds diverted by managers. Not only do these methods result in similar predictions, but it also simplifies the algebra significantly.

IV. Data

This section describes our data sources and the main variables of our model. Detailed definitions of the variables appear in Table I.

A. Predation and Autocracy

Many economies limit the scope of government intervention in private businesses. For example, the U.S. Constitution explicitly prohibits government intervention in interstate commerce. Although these same states are supposed to be protectors of private property rights, in many economies they are the chief violators of these rights.

In this section, we construct several indexes that we believe reflect the multi-dimensional aspect of state interference, including factors such as corruption, disrespect of property rights, unfair regulation, and mafia presence. As Hall and Jones (1999) note, any such index is only a noisy measure of imperfectly observed predation policies. This noise creates an errors-in-variables problem that may bias one's empirical estimates. Later in the paper, we attempt to mitigate this potential bias by, first, relying on a unique firm survey on directly observed obstacles imposed by government interference and, second, using instruments for the predation measure.

We employ two measures of the effectiveness (more precisely, the lack thereof) of institutional and economic systems in curbing government predation. The first effectiveness measure is the *predation* index. This index consists of seven distinct attributes: (i) *corruption* (the degree to which corruption distorts economic and financial environment); (ii) *risk of government expropriation*; (iii) *lack of property rights protection*; (iv) *government stance towards business* (assessment of the likelihood that the current government will implement business-unfriendly policies); (v) *freedom to compete* (assessment of government policies towards establishing a

competitive market environment); (vi) *quality of bureaucracy* (assessment of whether bureaucracy impedes fair business practices); and (vii) *impact of crime* (assessment of whether crime impedes private businesses development). The corruption index is obtained from *Transparency International* (TI), while the rest of the indexes come from the *Economist Intelligence Unit* (EIU). We define the predation index as the sum of the seven attributes. In our analysis, we use the aggregate index as well as its individual components.

The second effectiveness measure is based on a country's political system – the degree of government autocracy. During the last two centuries the world has moved from a monarchy-based leadership structure to the development of bureaucracies with high capacities to regulate, tax, and mobilize people in the service of state policy. This transformation generally followed one of two paths, toward either autocracy or plural democracy. In pursuit of self-enrichment, autocratic rulers are more likely to set up extortion regimes and are less subject to checks and balances from democratic institutions by, for example, inhibiting independent media (Egorov, Guriev, and Sonin (2007)).

To measure the degree of government *autocracy*, we use a popular political data set, *POLITY IV*. For every country in the world, the POLITY records autocracy and democracy indexes. Our autocracy index is constructed using a two-step procedure to account for the fact that some countries grant exemplary freedoms to private enterprises but are classified as autocratic (for example, Singapore). First, as suggested by the POLITY database, we subtract the democracy index from the autocracy index. We further note that even if a country is classified as autocratic, the quality of government policies might be influenced by government stability. An autocratic government that is not stable has greater incentives to extract rents for self-enrichment during its brief tenure. Thus, we also add the government instability index from the *Investor Country Risk Guide* (ICRG) to the constructed autocracy index. Government instability is an assessment of the government's ability to stay in office and carry out its declared programs, depending upon such factors as the type of governance, cohesion of the government and governing parties, and the approach of an election.

B. Firm Governance

For our analysis, we use four distinct and comprehensive data sets (that are available and known to the authors) on firm governance, transparency, and obstacles imposed by governments. Specifically, we rely on firm indicators from CLSA's 2000-2001 *Governance Indicators*, S&P's 1997-2002 *Transparency Rankings*, Institutional Shareholder Services' (ISS) 2003-

2006 *International Corporate Governance Quotients*, and the World Bank's 2000 *World Business Environment Survey* (WBES). The four data sets cover over 20,000 firms (including small firms) from more than 85 countries. A broad set of countries from every continent is included, ranging from underdeveloped nations (Ethiopia, Malawi, Tanzania, Nigeria, Haiti) to the most advanced economies (Hong Kong, Singapore, Germany, Japan, the U.K., the U.S.).

B.1. CLSA Governance Sample

The first proxy for firm governance comes from the reports issued by CLSA in 2000 and 2001 (CLSA Emerging Markets (2001, 2002)). These reports assign governance scores to firms in East Asia, South Asia, Latin America, and Eastern Europe.[12] The data cover 606 firms in 25 countries. There are 494 firms in 2000, 500 firms in 2001, and 388 firms in both 2001 and 2002.

The governance indicators are based on answers from financial analysts to 57 questions (Appendix A) used to construct scores on a 1-100 scale, where a higher number indicates better corporate governance. All questions have binary answers (yes/no) to reduce analysts' subjectivity. Scores on the 57 questions are grouped into seven categories: (i) managerial incentives and discipline towards value-maximizing actions (9 attributes); (ii) timeliness and accuracy of financial information disclosure (10 attributes); (iii) board independence (7 attributes); (iv) board accountability (8 attributes); (v) enforcement and management accountability (6 attributes); and (vi) minority shareholder protection (10 attributes). We use the composite governance index (*CLSA governance*) defined as 0.15 times the sum of the six individual attributes.[13]

We construct a series of firm, industry, and country variables.[14] All firm variables come from the *Worldscope* data set. The rationale for including these variables is explained in detail in Durnev and Kim (2005) and Doidge, Karolyi and Stulz (2006). Two variables are included as firm determinants of governance: firm growth opportunities and industry dependence on

---

[12] Part of these data (for the year 2000) were used in Khanna, Kogan, and Palepu (2006), Chen, Chen, and Wei, (2003), Klapper and Love (2003), Krishnamurty, Sevic, and Sevic (2003), Durnev and Kim (2004), and Doidge, Karolyi, and Stulz (2006).

[13] CLSA claims that its rankings are objective. In support of this claim, the S*outh China Morning Post* reported in 2001 that CLSA lost most of its corporate finance business with the companies that were given low corporate governance scores. Because of this, CLSA has blocked public access to firm-specific governance scores beginning in 2002. Durnev and Kim (2005) and Khanna, Kogan, and Palepu (2006) further support the reliability of the CLSA composite scores by documenting a positive and significant relation between CLSA scores and corporate scandals that appeared in the business press.

[14] All independent variable are defined identically for the CLSA, S&P, and ISS samples.

external financing.[15] To measure *firm growth opportunities* we use past (lagged by one year) growth in sales. Following Rajan and Zingales (1998) and Doidge, Karolyi, and Stulz (2006), we compute past *industry dependence on external financing* as the industry median value of capital expenditures minus cash flows from operations divided by capital expenditures. This variable is calculated on a 3-digit SIC industry level using the sample of all U.S. firms included in *COMPUSTAT* ten years prior to the formation dates of the governance variables. It is then matched (by 4-digit SIC code) with non-U.S. firms from our governance sample. Note that this approach assumes that U.S. capital markets are frictionless and that non-U.S. firms have a similar need for external financing to U.S. firms.[16]

Because larger firms are generally more transparent, we include firm *size* as a control. Firm size is defined as the past log of total assets. *Cash*, defined as past cash over total assets, controls for the possibility of free-cash flow problems. We control for whether a firm issues ADRs by adding the *cross-listing dummy*, which is equal to one if a firm's shares are listed on a U. S. exchange. *Industry dummies* are also included using the 2-digit SIC industry classification as in Campbell (1996).[17] Following Doidge et al. (2002), we measure firm *valuation* as the sum of total assets and the market value of equity less book value of equity over total assets.

Several country-level indicators are constructed to account for country economic and financial development, the quality of the legal environment, the size of unofficial economy, and alternative governance mechanisms. Real *GDP per capita* and the ratio of stock market capitalization to GDP are included in all regressions to proxy for the degree of economic and *financial development*, respectively. These variables are taken from the World Bank's *World Development Indicators*. Doidge, Karolyi, and Stulz (2006) contend that the incentives to reform governance are lower for firms in countries with underdeveloped stock markets.

We measure the quality of the legal regime using three variables. First, we use the *anti-self dealing index* from Djankov, La Porta, and Shleifer (2006) and used in Aggarwal et al. (2007). This index is an aggregate measure of legal rules and private enforcement mechanisms, such as

---

[15] Unlike Doidge, Karolyi, and Stulz (2006), we do not include ownership concentration (closely-held shares from Worldscope) as a firm governance determinant in our reported results because it reduces our sample size by 40%. However, all of our results in the paper remain robust to the inclusion of this variable.

[16] The results are robust to an alternative definition of firm-level external financing as in Demirgüç-Kunt and Maksimovic (1998). We measure it as the difference between required investment and internally available capital for investment. Required investment is estimated by an annual growth rate in total assets. Internally available capital for investment is defined as *ROE*/(1-*ROE*), where *ROE* is net income over total equity.

[17] The results are robust to the inclusion of lagged *R&D expenditure* scaled by sales as a measure of assets intangibility.

disclosure, approval, and litigation, governing a specific self-dealing transaction based on ex-ante and ex-post control of self-dealing. As a robustness check, we also include an updated *investor protection* index from Djankov, La Porta, and Shleifer (2006) and a de facto measure of law enforcement, ICRG's *rule of law*. The rule of law variable is a quantitative assessment of the strength of a country's tradition of law and order.[18]

Predatory government policies are associated with a greater market share of an unofficial (black market) economy. We therefore control for a state's *black market* assessment using the *World Competitiveness Yearbook*' measure of the extent to which the black market economy impairs economic development. Finally, *freedom of press* is used as an indicator of alternative governance mechanisms (see Dyck and Zingales (2002); Dyck, Volchkova, and Zingales (2006)). The variable comes from *Journalists without Borders* and is based on 50 criteria including journalists' murders, imprisonment, physical attacks, and threats.

Table II reports the summary statistics for the CLSA governance sample. The sample represents both developed countries and emerging economies. Correlation coefficients in Table III indicate that firms score higher on corporate governance in more economically and financially developed countries and in countries with lower corruption, lower risk of expropriation, better property rights protection, more freedom to compete, better quality of bureaucracy, and less autocratic governments. Firms that are better governed are also valued higher. Table III also contains correlation coefficients between individual attributes of the predation index, the autocracy index, the macro-economic variables, and the legal environment variables. The individual components of the predation index (corruption, risk of government expropriation, lack of property rights protection, government stance towards business, freedom to compete, quality of bureaucracy, and impact of crime) are highly positively correlated. In more advanced economies, as measured by GDP per capita, there is less corruption, better protection of property rights, more freedom to compete, more business-friendly governments, better quality of bureaucracy, and less crime. Generally, the same can be concluded about less autocratic countries.

[18] Our results hold if we control for the country *corporate tax burden* from the EIU. It is defined as the assessment of how corporate taxation impedes the development of private businesses. We use this variable to distinguish between confiscatory taxation and taxes that serve a beneficial role such as reforming the legal environment.

B.2 S&P Transparency Sample

Standard & Poor's conducted a survey of 1,600 companies around the globe concerning firms' transparency and disclosure. The companies comprise one of S&P's global indexes. The strength of the survey lies in the objectivity and clarity of its methodology.[19]

Transparency and disclosure are evaluated by searching for the inclusion of 91 possible information items (Appendix B). These 91 items were selected after examining the annual reports and other accounts of leading companies around the world and identifying the most common disclosure items. The inclusion of each item is scored on a binary basis ("yes" denotes included and "no" denotes not included) to ensure objectivity. Each "yes" answer is equal to one point. These items are then grouped into three sub-categories: (i) ownership structure and investor relations (22 items); financial transparency and information disclosure (34 items); and board and management structure and process (35 items). We define an aggregate *S&P transparency* index as the sum of these three categories. The index ranges from 0 to 91 with a higher score representing more transparency and disclosure. The sample includes 1,494 firms from 40 countries. The panel of firms is unbalanced. There are 144, 388, 413, 573, and 178 firms in years 1997, 1998, 1999, and 2000, respectively. Since a part of the empirical analysis requires a balanced panel (for example, when we need to express some of the variables in differences), the number of observations in the resulting balanced panel is lower than in the unbalanced one.

The advantage of the S&P scores lies in their objectivity, whereas the CLSA scores are more comprehensive but susceptible to subjectivity. However, the S&P scores depend only on the number of disclosures, and do not reflect the content of such disclosures. They are best viewed as a measure of transparency and not a comprehensive measure of corporate governance. Notwithstanding these differences, the two sets of rankings turn out to be fairly consistent. The correlation coefficient between CLSA's and S&P's scores is 0.17 (p-value = 0.000) (see Table II).

Table II reports the summary statistics of the S&P sample. Similar to the CLSA sample, firms that disclose more information are valued higher (Table III). Firms generally score higher in terms of S&P transparency in more developed countries and in countries with less predatory and autocratic governments.

[19] A part of this data set is used in Durnev and Kim (2004), Khanna, Palepu, and Srinivasan (2004), and Doidge, Karolyi, and Stulz (2006).

B.3. ISS International Corporate Governance Quotients

One of the most comprehensive international governance data sets, *Corporate Governance Quotients*, is compiled by the ISS. These data are used in Aggarwal and Williams (2006), Aggarwal et al. (2007), Bruno and Claessens (2007), and Chhaochharia and Laeven (2007). The ISS cover a comprehensive sample of firms (7,901) from 22 countries (Table II). Although the majority of companies come from the U.S. (5,476), compared to other firm governance data sets the ISS data provide the best coverage (in terms of the number of governance items and the number of firms) for non-U.S. companies. The non-U.S. firms are part of the major international stock indexes: the MSCI EAFE index, the FTSE All Share index, the FTSE All World Developed index, and the S&P/TSX index. The data are available for the years from 2003 through 2006. There are 1,710 non-U.S. firms (5,533 U.S. firms) in 2003, 1,696 (5,344) in 2004, 1,708 (5419) in 2005, and 2,363 (5,476) in 2006. The drawback of the ISS data set is that the companies are mostly from developed countries in which governments generally respect property rights and score low on corruption. Despite the potential drawbacks to the ISS data set, we utilize it for some of our empirical tests.

As in Aggarwal et al. (2007), we identify 44 governance attributes that are aggregated into the *ISS governance* (Appendix C). The index assigns a value of one to a governance attribute if the company meets or exceeds minimum satisfactory standards in a specific category. The attributes are split into four sub-categories: (i) board (25 attributes related to board independence, board size, transparency, and effectiveness); (ii) audit (3 attributes related to the independence of the audit committee); (iii) anti-takeover (6 attributes related to charters and bylaws); and (iv) compensation and ownership (10 attributes related to options, stock ownership, and monitoring of director compensation). The index is calculated for December 2005.

We observe from the correlation coefficients in Table III that ISS governance is positively and significantly correlated with S&P transparency and not related to CLSA governance (only 18 firms belong to both the ISS and CLSA samples). ISS governance is correlated neither with firm valuation nor with GDP per capita. Although ISS governance is negatively related to the predation index, it is positively correlated with the autocracy index. These results should be interpreted with care because there is little variation in country variables in the ISS sample.

B.4 World Business Environment Survey Sample

Admittedly, similar predatory policies may have different effects on firms in the same country. For example, larger and more profitable companies will generally have more funds to spend on bribing corrupt officials to guard against state expropriation. In addition, these same firms can protect themselves by seeking political connections. Political connections are often unobservable and hard to measure (Faccio (2006)), and the described data sets (CLSA, S&P, and ISS) are subject to these problems. We partially overcome this hurdle by using the World Bank's *WBES* (Appendix D). This is a *firm-level* survey that provides information (over 170 variables) on a firm's perception of obstacles to financing, development, and growth imposed by government policies; the survey variables include factors such as overregulation, bribes, extortion, taxes, quality of courts, political stability, and poor infrastructure.

The survey was conducted for 10,032 firms from 81 developing and developed countries in 1999 and 2000. The scope of countries is very broad, ranging from the poorest (Ethiopia and Malawi) to the richest (the U.S. and Germany). According to the summary statistics reported in Table IV, Turkey contains the lowest number of firms (50), whereas Thailand contains the most firms (422). Small companies (less than 50 employees), medium companies (more than 50 but less than 500 employees), and large companies (more than 500 employees) comprise 40, 40, and 20 percent of the sample, respectively. The data contain both private and public companies. Due to restrictions on control variables, the final sample size varies from 4,000 to 7,000 firms from 79 countries.

Although the identity of the companies is unknown, the survey contains basic information on firm performance, sales, capital structure, ownership structure, and accounting practices. The anonymity of the interviewed firms encouraged correct responses from the firms. The WBES dataset is used by Beck, Demirgüç-Kunt, and Maksimovic (2005) and Ayyagagri, Demirgüç-Kunt, and Maksimovic (2005, 2006) to examine how firms perceive property rights protection and how financing constraints hamper firm development. They discover that financial obstacles imposed by government interference, discretionary taxation, corruption, and crime suppress firm growth, particularly in small companies.

The WBES data set does not include conventional governance variables; however, we identify one firm item that represents the desire of firms to become more transparent. The item is whether a firm chooses to have its financial statements audited. We define *audit* as a variable that takes a value of one if a firm's financial statements are audited and zero otherwise. Although this measure of firm transparency is much narrower compared to the transparency

attributes in the CLSA or S&P data sets, we believe this drawback is compensated by the large number of firm observations.[20]

The firms' evaluation of obstacles imposed by corruption, taxation and regulation, and crime are based on answers to the following questions: "Please judge on a four-point scale where 4 means a major and 1 means no obstacle how problematic (i) is corruption for operation and growth of your business; (ii) are taxes and regulation for operation and growth of your business; (iii) are organized crime and mafia for operation and growth of your business." The *composite obstacles* index is formed as the sum of the three components. Since the predation and autocracy indexes cannot be defined for a number of countries in the WBES sample, the composite obstacles variable serves as a substitute.

The assessment of *laws and regulations* on the company level consists of three categories: (i) availability of laws and regulations; (ii) predictability of laws and regulations; and (iii) confidence in the judicial system.[21] We use this variable to measure how legal structure and the quality of regulation affect firms' operations.

Firm *performance* is measured by the estimated (reported by the companies) percentage growth rate in future sales.[22] We employ future rather than past sales (as in Demirgüç-Kunt, and Maksimovic (2005)) to reduce endogeneity. Country rate of *inflation* is included to control for the stability of sales growth estimates. *Firm size* is controlled for by a variable that takes a value of one for small firms, two for medium firms, and three for large firms. To account for the monitoring role of foreign investors, a *foreign ownership* variable (the percentage of the company owned by foreign investors) is included. We also control for *state ownership* because firms can seek protection from predatory governments by increasing government ownership stake. Finally, *sector dummies* (manufacturing, services, agriculture, and other) are included to control for differences in accounting practice and regulation.

The summary statistics and correlation coefficients for the WBES sample are reported in Table V. Some notable findings emerge from this table. Firms that have a poorer assessment of

---

[20] Mitton (2002) uses a similar variable to define transparency in a study of how legal environment affects firm transparency.

[21] The score is cumulative and based on the answers to the following three questions: (i) "In general, information on the laws and regulations affecting my firm is easy to obtain" (The possible answers are: 1. Fully disagree; 2. Disagree in most cases; 3. Tend to disagree; 4. Tend to agree; 5. Agree in most cases; and 6. Fully agree); (ii) "In general, interpretations of laws and regulations affecting my firm are consistent and predictable" (1. Fully disagree; 2. Disagree in most cases; 3. Tend to disagree; 4. Tend to agree; 5. Agree in most cases; and 6. Fully agree); (iii) "In resolving business disputes, do you believe your country's court system?" (1. Never; 2. Seldom; 3. Sometimes; 4. Frequently; 5. Usually; and 6. Always).

[22] The WBES data set precludes us from calculating a Tobin's Q.

laws and regulations and report more obstacles to their development due to unfair taxes, corruption, and crime are more likely to be located in less economically developed countries and in countries with more predatory governments, more autocratic rulers, and worse legal environments. Firms with audited financial statements show better performance. Better performing firms are located in countries with better laws and regulations and with fewer reported development obstacles. We observe that larger firms (based on the number of employees) are more likely to have audited statements. Firms with higher foreign (state) ownership perform better (worse). Nonetheless, firms face fewer obstacles if their foreign or state ownership levels are larger.

V. Results

In this section, we report the empirical results. Given that observations on individual firms in a given country are likely to be correlated, all standard errors and reported *p*-values are calculated using clustered (by country) robust standard errors (see Petersen (2006)).[23]

In the CLSA sample, the governance scores are either for the year 2000 or 2001. In the S&P samples, the transparency data are for either 1997, 1998, 1999, 2000, or 2001. The ISS governance data are for December 2005. The WBES data are for 2000. To reduce endogeneity, the independent variables in all regressions are lagged by one year.

A. Does Predation Affect Firm Governance?

Prediction 1 states that firms practice weaker governance in more predatory states. We first present graphical evidence by plotting country averages of governance against the predation index (the CLSA, S&P, and ISS samples) and the composite obstacles index (the WBES sample). To remove the impact of firm, industry, and country (other than predation) factors that are related to governance, we calculate abnormal levels of governance. Abnormal governance is measured as the residuals from an OLS regression of CLSA governance, S&P transparency, and ISS governance on growth opportunities, industry dependence on external financing, size, cash, the cross-listing dummy, anti-self dealing, GDP per capita, market capitalization, black market, freedom of press, and industry dummies. For the WBES sample, the residuals are from a probit regression of audit on laws and regulations, firm size, foreign ownership, GDP per capita, and industry dummies.

[23] We cannot rely on country fixed effects because both firm-specific and country-specific variables are used in the same regressions.

Figure 2 displays country averages of abnormal governance and transparency as a function of predation (Panel A for the CLSA, Panel B for the S&P, Panel C for the ISS, and Panel D for the WBES samples). The intercepts and slopes of the displayed lines are determined by OLS regressions of country average abnormal firm governance and transparency on the predation index (Panels A-C) and on the composite obstacles index (Panel D). In Panels A-C, we observe from each of the graphs that abnormal governance is worse (lower) in countries with more predatory governments. Panel D shows that the abnormal level of the audit dummy is lower in countries with greater composite obstacles (as measured by the sum of crime-based obstacles, tax and regulation-based obstacles, and corruption-based obstacles). The slopes of the lines in all of the graphs are significant at the 5% level.

Next, we turn our attention to the regression analysis and present the baseline regression results in Table VI. Panel A examines the CLSA, S&P, and ISS samples. In the first three specifications, we regress CLSA governance on predation, autocracy, and the predation index subcomponents separately (corruption, risk of government expropriation, lack of property rights protection, government stance towards business, freedom to compete, quality of bureaucracy, impact of crime), in each case using our control variables (growth opportunities, industry dependence on external financing, size, cash, the cross-listing dummy, anti-self dealing, GDP per capita, financial development, black market, freedom of press, and industry dummies). In the first regression, we observe that predation is negative and significant at the 5% level. This implies that in countries with higher predation, firms score lower on CLSA governance. The second regression shows this same negative relation with autocracy and CLSA governance scores. When we break up predation into the seven subcomponents, we notice that the predation variables that show a negative and significant impact on CLSA governance are corruption, quality of bureaucracy, and impact of crime. In each of the three regressions, growth opportunities, dependence on external financing, anti-self dealing, and market capitalization are all positive and significant, consistent with prior findings by Black, Jang, and Kim (2006a), Durnev and Kim (2005), and Bruno and Claessens (2007).

When we regress S&P transparency on the same set of variables, we find that with higher predation or greater autocracy firms disclose less information. The subcomponents of predation that are negative and significant on transparency are corruption, government stance towards business, freedom to compete, quality of bureaucracy, and impact of crime. Growth opportunities, dependence on external financing, size, the cross-listing dummy, anti-self

dealing, market capitalization, and freedom of press positively and significantly affect firm transparency, whereas cash negatively affects transparency.

In the last three regressions of Panel A, we use ISS governance as the dependent variable. Again, we document that greater predation but not autocracy is associated with lower governance.[24] Growth opportunities, size, and market capitalization have a positive and significant effect on ISS governance. We do not observe a significant relation between corruption and ISS governance, in contrast to the regressions with CLSA governance and S&P transparency as the dependent variables. Only one predation component is significant – government stance towards business.[25]

Panel B of Table VIII makes use of the WBES audit dummy as the dependent variable in probit regressions on the composite obstacles, its subcomponents (crime-based obstacles, tax and regulation-based obstacles, and corruption-based obstacles), firm assessment of laws and regulations, firm size, foreign ownership, and GDP per capita. We first observe that when the composite obstacles index is high, the firm's financial statements are less likely to be audited. However, firms that have higher assessment of laws and regulations, larger firms, and firms with a higher percentage of foreign ownership are more likely to have audited financial statements. In the second regression in Panel B, obstacles due to taxes and regulations and corruption, but not those due to crime, are negatively and significantly related to the audit dummy. We conclude that all the results in Table VI are consistent with Prediction 1, which posits that firms in more predatory states set up weaker governance structures and disclose less.

B. Does Predation Lower Firm Performance?

Next, we test whether firms are valued lower in more predatory states (Prediction 2). We measure firm valuation using Tobin's Q (the CLSA, S&P, and ISS samples) as the dependent variable in our regression analyses. The dependent variable for performance in Panel B (the WBES sample) is the estimated future percentage change in sales.

The results are presented in Table VII. The controls are past growth opportunities, firm size, the cross-listing dummy, anti-self dealing, GDP per capita, financial development, and industry dummies in Panel A (the CLSA, S&P, and ISS samples), and laws and regulations, firm size,

---

[24] Presumably, autocracy is insignificant because the ISS sample covers only developed countries.

[25] We check whether the results in Panels A-C are robust to the inclusion of ownership concentration as an additional governance determinant. Although we lose more than 40% of the sample, the magnitude and significance of the coefficients remain virtually unchanged. Additionally, the results are robust if we substitute the anti-self dealing variable as a proxy for legal environment with the investor protection and rule of law indexes.

foreign ownership, state ownership, GDP per capita, inflation, and sector dummies in Panel B (the WBES sample). Consistent with the various studies already mentioned above, in eight out of the nine regressions in Panel A, better-governed and more transparent firms are valued higher.

The main results in Panel A of Table VII illustrate that in more predatory and autocratic states, firms are valued lower as measured by Tobin's Q. Regarding the individual attributes within the predation index, the results on predation are driven by corruption, risk of government expropriation, and lack of property rights protection in the CLSA sample; corruption, risk of government expropriation, lack of property rights protection, freedom to compete, and crime in the S&P transparency sample; and corruption and bureaucracy in the ISS governance sample. Firms with greater growth opportunities and firms that are smaller in size are generally valued higher.

Panel B of Table VII examines the WBES sample and uses the predicted percentage change in sales as the performance measure. We observe that firms with audited financial statements have higher growth rates in sales, but the growth rates are lower when the firms face more obstacles. When we examine the variables within the composite obstacles, we determine that both taxes and regulation and corruption are responsible for the decrease in sales growth. Larger firms and firms with greater foreign ownership perform better, as previously documented in Beck, Demirgüç-Kunt, and Maksimovic (2005). State ownership has a negative albeit insignificant impact on firm performance. Inflation attracts a negative and significant coefficient. Table VII clearly supports our hypothesis that firms perform worse in more predatory and autocratic states.

C. Predation and the Impact of Governance on Performance

According to Prediction 3, governance likely has a weaker relation with performance in more predatory states. We test this prediction using several methods. First, we form the interaction terms of firm governance with the predation and autocracy indexes. This approach may suffer from high correlations between the variables and their interaction terms, rendering some coefficients insignificant. Thus, we rerun the "governance-performance" regressions separately on high- and low-predation and autocracy subsamples. The high number of observations in the ISS and WBES samples also allows us to run country-specific regressions and investigate how the relation between governance and performance varies from one country to another.

Regressions in Table VIII are similar to those in Table VII, but now we include interaction terms of governance and disclosure with predation and autocracy for the CLSA, S&P, and ISS samples, and the audit dummy with the composite obstacles variable for the WBES sample. Panel A indicates that better governance and transparency do not always translate into higher firm valuation. Put differently, the relation between governance and valuation is not always positive and monotonic as found in the studies mentioned above. We can see this by examining the interaction terms of governance and transparency with predation and autocracy. CLSA governance, S&P transparency, and ISS governance interacted with predation and autocracy are all negative (significant for CLSA governance and S&P transparency, and insignificant for ISS governance). We interpret these findings to imply that firms that practice good governance, or firms that are more transparent, are valued less in more predatory and autocratic states.[26]

We explore the WBES sample in Panel B. Panel B reveals that firms that have their financial statements audited, but face more obstacles from crime, taxes and regulation, and corruption grow slower. As in our earlier analysis, we control for clustering at the country level in all the regressions. The individual coefficient on audit loses significance when the interaction term of audit with obstacles is included.

In Table IX, we divide the sample into low- and high-predation, autocracy, and composite obstacles countries and rerun regressions similar to those in Table VIII. Low- (high-) predation, autocracy, and composite obstacles countries are defined as the bottom (top) quartile of values. Our belief (follows from Prediction 3) is that if governance and transparency matter less in high-predation, autocracy, and obstacle countries, we should detect at most a weak relation between firm governance and firm performance and between transparency and firm performance in the top quartile of countries.[27]

In Table IX, we notice from the CLSA sample that the positive coefficient on governance is significant for the low- and high-predation countries, as well as for the low- and high-autocratic countries. The S&P sample, however, shows that transparency only positively affects firm valuation in the low-predation and autocratic states. We detect this same pattern for the audit dummy variable and performance for the WBES sample (Panel B). Auditing a firm's financial

[26] Using CLSA and S&P scores, Klapper and Love (2004) and Durnev and Kim (2005) find that firm governance matters more in countries with weaker legal environments. For robustness, we control for this by including interaction terms of legal regime variables (the investor protection index and the rule of law) with CLSA governance and S&P transparency. Consistent with prior findings, the interaction terms attract negative, albeit insignificant, coefficients. The rest of the coefficients do not change their magnitudes or significance noticeably.

[27] This analysis is not performed on the ISS sample because the top and bottom quartiles contain firms from just one country.

statements only significantly improves performance in the low-obstacle countries. In Table IX, we also test whether the coefficients obtained in the low-predation and autocracy subsamples are significantly different from those obtained using the high-predation and autocracy subsamples.[28] The differences in the coefficients turn out to be significant across all specifications of the S&P and WBES samples.

In Table X, we utilize a large number of observations in the ISS and WBES samples and rerun the regression of Table VII separately for every country. In all of the regressions, we control for growth opportunities, firm size, the cross-listing dummy, and industry fixed effects in Panel A (the ISS sample), and firm size, foreign ownership, and sector dummies in Panel B (the WBES sample).

In Panel A, country-specific coefficients on ISS governance are positive and significant in nearly half of the countries and they mostly appear in low-predation countries. As we mentioned already, the ISS data set only contains developed economies and thus care needs to be taken in interpreting these results. Panel B of Table X covers the WBES sample, which does include developing countries along with the developed ones. In the WBES sample, the impact of the audit dummy on firm performance has less of an effect in countries with a greater average value of composite obstacles (higher number in the second column). The positive effect of audited financial statements is present in 37 out of 60 countries and is significant at the 10% level for 17 countries. For the rest of countries, the beneficial effect of audited financial statements disappears altogether.

To formalize this pattern in governance-performance sensitivities, Figure 3 plots the coefficient on governance against predation in Panel A (the ISS sample) and the coefficient on the audit dummy against the composite obstacles index in Panel B (the WBES sample). The coefficients are from the regressions presented in Table X. First, we identify from Panel A that the sensitivity of valuation to governance decreases with predation. The graph in Panel B reveals that the sensitivity of firm performance (growth in sales) to the audit dummy variable is also decreasing in the composite obstacles. The slopes of the trend lines are both negative and significant at the 5% level. These graphs further confirm the hypothesis that the relation between firm performance and governance is negatively associated with predation.

[28] The test is performed by running joint-sample regressions using all independent variables and their interactions with a low predation dummy variable. The dummy variable takes a value of one for observations that belong to the low-predation subsample, and zero otherwise.

D. What Factors Explain Variation in Governance?

In this section, we test Prediction 4, which states that firm governance is less sensitive to firm and industry characteristics in more predatory countries; that is, firms have more similar governance structures in such countries. Doidge, Karolyi, and Stulz (2006) argue that the beneficial effects of governance and transparency are lower in states with less developed financial markets. They show that firm and industry characteristics explain a very small part of variation in governance and transparency in such markets. More predatory states, in turn, are less financially developed.[29] We therefore contend that state predation can be a complementary story to Doidge, Karolyi, and Stulz (2006) in explaining why firm factors play a small role in defining firm governance.

To test this conjecture, we identify four governance and transparency determinants for the CLSA, S&P, and ISS samples. They are: growth opportunities, industry dependence on external financing, firm size, and firm cash.[30] For the WBES sample, the determinants are: firm assessment of laws and regulations, firm size, and foreign ownership. Similar to the governance-performance analysis, we test Prediction 4 by including the interaction terms of governance with its determinants, splitting the sample according to high- and low-predation countries, and, then running country-specific regressions.

Table XI examines whether the sensitivities of firm governance to firm and industry characteristics are lower in more predatory states. As in Table VI, predation negatively affects CLSA governance, S&P transparency, and ISS governance. Higher predation accompanied with a greater dependence on external financing and larger firm size negatively impacts CLSA governance. This confirms the hypothesis that the positive impact of firm and industry characteristics is less crucial to shaping firm governance in more predatory countries. However, as in the case with predation, where the individual determinants lose significance, larger firms with greater growth opportunities and more dependence on external financing in more autocratic states are significantly associated with lower CLSA governance scores.

The results for the interaction terms affecting S&P transparency are fairly similar to the CLSA governance scores. Larger firms with greater growth opportunities and more dependence on external financing in countries with more predatory government are less transparent. The sensitivity of autocracy combined with the firm and industry characteristics have no effect on transparency as is evident by the lack of significance of the interaction terms with autocracy.

---

[29] The correlation between the predation index and financial development variable is -0.630 (p-value = 0.00).

[30] The reported results do not change if we include ownership concentration in these regressions.

As in the case with CLSA governance as the dependent variable, higher predation accompanied with greater dependence on external financing and firm size negatively affects ISS governance. The same firm and industry characteristics (growth opportunities, dependence on external financing, and size) interacted with autocracy negatively affect ISS governance, consistent with the CLSA governance scores.

Panel B (the WBES sample) illustrates that better assessment of laws and regulation and larger firms in states with greater obstacles (corruption, tax and regulation, and crime) are less likely to have audited financial statements.[31]

In Table XII, we divide the sample into low- and high-predation, autocracy, and composite obstacles countries and run similar regressions to Table XI. If firm and industry characteristics matter less in high-predation, autocracy, and obstacle countries, we should detect at most a weak relation between firm and industry characteristics and governance in the top quartile subsamples. As in Table IX, we do not include the ISS sample in this table because the top and bottom quartiles of the sample contain firms from just one country.

We notice from Panel A of Table XII that there are substantial differences in the coefficients between the high- and low-predation, high- and low-autocracy, and high- and low-composite obstacles index countries. We again detect most of the same signs and significance on firm determinants in the low-predation and low-autocracy subsamples. The coefficients on the governance determinants in the low-predation subsample are statistically different from the coefficients in the high-predation and governance subsamples. Firms with greater growth opportunities in low-predation countries have higher CLSA governance scores, and firms in low-autocracy states have higher CLSA governance scores and S&P transparency rankings. Dependence on external financing is significantly negatively related to CLSA governance and S&P transparency in only low-predation and low-autocratic countries. A negative and significant relation holds between cash holdings and both CLSA governance and S&P transparency in low-predation and autocracy subsamples.

For the low- and high-composite obstacles index subsamples (Panel B of Table XII), a similar pattern (that is, a positive relation) obtains for firm size on the WBES audit dummy. Better laws and regulation, as well as a greater fraction of foreign ownership, have a positive effect on the WBES audit dummy dependent variable, but only for low-obstacle firms. The regression coefficients in the low-obstacle subsample are jointly significantly different from the coefficients

[31] The results remain unchanged if we control for the interaction between governance determinants (growth opportunities, dependence on external financing) and the quality of the legal environment (investor protection and rule of law indexes) as in Durnev and Kim (2005).

in the high-obstacle subsample. Overall, our findings confirm the hypothesis that firm and industry characteristics matter more in low-predation, autocracy, and obstacles countries. These are the firms that have the most incentive to practice better governance and become more transparent.

As in Table X, we run country-by-country regressions for Table XIII and report coefficients and *p*-values on growth opportunities, dependence on external financing, and size for the ISS sample (Panel A) and laws and regulations, firm size, and foreign ownership for the WBES sample (Panel B). The country regressions include all of the other firm and industry control variables mentioned earlier and utilized in the Table VI regressions.

The ISS governance sample contains only developed countries and we notice that growth opportunities significantly affect ISS governance in 10 out of the 23 countries contained in the data set. All but one of the significant coefficients is positive. The negative and significant coefficient corresponds to France, where the predation index is relatively higher than in almost all of the other countries. We notice a similar pattern for the size of the firm on ISS governance, but the negative and significant coefficient now corresponds to Japan. None of the coefficients on the dependence on external financing are significant.

Panel B of Table XIII reports the countries for the WBES data set. It appears that a better firm assessment of laws and regulations doesn't always translate into a firm choosing audited financial statements. We also uncover that in the majority of countries, larger firms and firms with greater foreign ownership have audited financial statements. The pattern of signs of the coefficients is also revealing. Most of the positive and significant coefficients appear at the top half of the table, the part containing countries that score low on predation and autocracy. This is also evident from Figure 4.

Panel A of Figure 4 plots the coefficients on growth opportunities and size against predation for the ISS governance sample. We detect that the growth opportunity sensitivities are negatively related to predation. The coefficient on the trend line is negative and significant at the 5% level. The relation between size sensitivity and predation is negative, but the trend-line coefficient is insignificant. Panel B plots the coefficients on law and regulation, firm size, and foreign ownership for the WBES data set against the composite obstacles. The slopes of the lines are negative and are all significant at the 5% level. Taken together, the firm and industry variables show a weaker relation to governance and transparency in more predatory countries.

The second part of Prediction 4 states that, all else equal, within-country variability in governance is lower in more predatory states. In Table XIV, we report the results of OLS

regressions of governance variability (defined at the firm level) on predation and autocracy for the CLSA, S&P, and ISS samples, and on the composite obstacles index for the WBES sample. In these regressions we control for relevant firm, industry, and country variables. We define firm variability in governance as the absolute values of the residuals of firm governance obtained from the regressions in Table VI, omitting predation, autocracy, and composite obstacles. These residuals can be interpreted as the variation in governance conditional on firm and industry characteristics.

What we observe from the table is that the coefficients on predation and autocracy are negative and significant across all of the specifications for the CLSA, S&P, and ISS samples (Panel A). In addition, the coefficient on the composite obstacles is negative and significant for the WBES sample (Panel B). These results confirm our conjecture that firms exhibit less variability in governance in more predatory countries.

VI. Robustness

In our main analyses, we test our hypotheses using four distinct data sets. The results are persuasive across all four of them. Nonetheless, we check the robustness of our findings to endogeneity, errors-in-variables, sample selection, and outliers. We also include additional control variables in our regressions.

A. Endogeneity

In governance studies, it is often difficult to draw inferences from an observed association among country variables, corporate governance, and performance due to various statistical problems such as endogeneity, errors-in-variables, and sample selection. First, government predation policies might be endogenous to the quality of the legal regime and the level of economic development, and thus to firm governance structure and firm performance. Hall and Jones (1999) also point out that predation can only be measured with noise, creating an errors-in-variables problem and potentially biasing one's empirical results. Second, unobservable firm characteristics (for example, managerial ability) and other factors may affect both firm performance and the firm's choice of corporate governance. Thus, the regressions of firm governance on firm characteristics and of firm performance on governance suffer from the well-known statistical problem whereby the regression error terms and independent variables are correlated. Such regression results would not readily lead to a reliable conclusion about the link

between predation, governance, and performance. We address these two types of endogeneity in this subsection.

First, we use language, distance from the equator, and openness of the economy variables (described in Table I) as instruments for the predation index and its interaction terms with firm governance (see Hall and Jones (1999)).[32] The first instrument is the Western European (French, German, Portuguese, and Spanish) language dummy. The belief is that countries in which a substantial part of the population speaks one of the European languages were more likely to establish a system of checks and balances that limit government predatory policies. The European influence is also stronger where people settled sparsely at the beginning of the 16th century, such as the United States, Canada, Australia, New Zealand, and Argentina. We account for this factor by using distance from the equator as an instrument. Finally, trade share is used as an instrument because businesses in more open countries likely lobby for pro-business regulations.[33]

In Table XV, we rerun our main determinants-of-governance and governance-performance regressions (using all four samples) using the instrumental variables described above for the predation index and the interaction terms of predation with the governance indicators. The results are reported in Table XV. Panel A contains the determinants-of-governance regressions, an abbreviated version of Table VIII.[34] It is evident that, with the instrumental variables, the results described earlier become generally stronger. In more predatory states, firms practice worse governance and disclose less. The performance regression results (Panel B) are also robust to earlier findings that suggest firms in more predatory states are valued lower and the valuation effect of good governance is lessened in more predatory states (except for the ISS sample).[35]

We follow Himmelberg et al. (1999) to tackle the second source of endogeneity. We assume the presence of unobserved firm fixed effects and eliminate them by estimating our regressions with all the variables expressed in differences. The remaining endogeneity is reduced by instrumenting contemporaneous differences by past levels of independent variables (see

[32] Hall and Jones (1999) discuss how this approach addresses both the endogeneity of predation and the errors-in-variables problem due to measurement noise.

[33] The results remain unchanged if we use the settler mortality rates of European Bishops, soldiers, and sailors stationed in colonies in the 17th, 18th, and 19th centuries as an instrument (see Acemoglu, Johnson, and Robinson (2001) and Claessens and Laeven (2003)).

[34] We do not instrument the interaction terms of firm characteristics with predation as there are not enough instrumental variables for the determinants-of-governance equation to be identified.

[35] At the bottom of Table XV, we report the results of the Durbin-Hausman-Wu test for endogeneity. The tests indicate that predation variables are endogenous.

Wooldridge (2001) for the description of this method). In these regressions, we utilize the panel structure of the CLSA, S&P, and ISS data sets.[36] The results of estimation in differences appear in Table XVI. The coefficient on predation drops out because there is very little intertemporal variation in this variable across countries. The results presented provide weaker support for the hypothesis that firm characteristics matter less in shaping firm governance in more predatory countries (Panel A).[37] We suspect that some of the coefficients become insignificant due to insufficient intertemporal variation in the independent variables in the relatively small sample. The regression results for performance on governance are more reassuring (Panel B). Firms that show a larger improvement in governance also experience a significant increase in valuation. The positive valuation effect of sounder governance is, again, weaker in more predatory states. Thus, we generally conclude that using geographical and linguistic instruments for the predation index, as well as estimating some of the regressions in differences, does not overturn our main results.

B. Sample Selection

The results may also be biased because of the sample selection problem. For example, firms are included in the CLSA, S&P, and ISS samples because of their size or because they are part of a major international stock index. We address this by estimating all regressions using the Heckman (1979) two-step selection model, which provides consistent and asymptotically efficient coefficient estimates. According to the Heckman selection model, a data point is observed if $\gamma * Size_j + u_j > 0$, where $Size_j$ is firm size, γ is the selection equation coefficient, and u_j is the error term. To estimate the selection regression, we use the entire universe of companies in the Worldscope database (over 20,000 firms). We find similar patterns in the magnitudes and significance levels of the coefficients reported in the tables.

C. Additional Controls

Private businesses can guard themselves from predatory government policies by becoming more indispensable to the states. This can be achieved by using more tangible assets, seeking greater internationalization, securing higher levels of short-term debt, and hiring more employees. Although these issues are investigated in a separate project, we nonetheless control for some of them (for the CLSA, S&P, and ISS samples) here to check that our results are not

[36] The WBES sample is not used for these tests because it is available only for one year.
[37] We omit dependence of external financing from the determinants-of-governance regression because we cannot calculate its lagged value.

driven by these factors. To save space we briefly describe the results without reporting the regressions.

Fixed assets are harder to expropriate by managers and governments (Claessens and Laeven (2003); Klapper and Love (2004)). This can affect the relation between governance, state expropriation, and valuation. We define fixed assets as the past ratio of property, plant, and equipment to sales. Across most of the specifications, we observe that firms with a greater proportion of fixed assets score higher on governance. Moreover, in the governance-performance regressions, the interaction term of predation with fixed assets is positive, indicating that the negative impact of predation is lessened for firms with more tangible assets.

The existing literature discusses how international exposure through, for example, cross-listing and joint international ventures helps companies signal their intentions to practice better governance to the market (Khanna, Kogan, and Palepu (2002)). Moreover, when shareholder rights are violated, investors can file claims in international rather than local courts (Doidge, Karolyi, and Stulz (2003); Siegel (2005)). Although we already control for cross-listing (the CLSA, S&P, and ISS samples) and foreign ownership (the WBES sample), we include exports (the past value of export revenues over sales) in all of the regressions. This variable and its interaction with predation turn out to be insignificant across most of the tables.

Companies can also alter their capital structure to elude government capture. It is established that debt rather than equity, and in particular short-term debt, is a main source of financing in developing countries (see, for example, Harvey, Lins, and Roper (2004) and Fan, Titman, and Twite (2005)).[38] Short-term debt can serve not only as a monitoring device but also as an instrument to make state capture costlier (Stulz (2005)). Consequently, we control for the level of short-term debt (past ratio of short-term debt to sales). In most of the specifications this variable and its interaction term with governance turn out insignificant.

Firms that employ more workers would presumably suffer less from government interference because unemployment-conscious governments are less likely to bring a firm to bankruptcy. We control for employment by the past ratio of the number of employees to sales. Although this variable is by itself insignificant, as is the case with fixed assets its interaction with predation is negative and significant in the valuation regressions.

[38] Harvey, Lins, and Roper (2004) provide evidence that debt creates shareholder value in emerging economies because higher debt levels reduce the agency costs associated with overinvestment.

In the WBES sample, we also form an interaction term of state ownership (this variable is not available for the CLSA, S&P, and ISS samples) with audit. It appears that obstacles imposed by governments matter less for companies with greater government ownership. We observe this with the positive and significant coefficient on the interaction term between the composite obstacles index and government ownership in the performance regressions.[39] We generally conclude that none of our previously reported results changes with these additional controls (fixed assets, exports, short-term debt, employment, government ownership).

D. Outliers

Outliers can potentially affect our findings. We use the method proposed by Hadi (1994) to detect and drop outliers. In addition, all regressions are re-estimated after winsorizing the main variables at the 1% and 99% levels. None of these procedures changes our conclusions. Our results also hold if we repeat the analyses after omitting U.S. firms from the S&P and ISS samples on the grounds that they comprise 32% and 70% of these samples, respectively. Accounting data for financial and banking industries are not directly comparable with those from other industries. When we eliminate the financial industries (SIC codes 6000-6999), the sample size is reduced by 10%. The main results, however, remain robust.

VII. Conclusions

In this paper, we propose a model of corporate governance and government predation whereby both states and managers can expropriate resources from the firm. According to this model, diversion by managers and expropriation by states are complements. The model predicts that managers have greater incentives to divert resources from the firm when the risk of government expropriation is higher. Intuitively, it is harder for the government to expropriate from the firm when the manager has already diverted profits without the knowledge of the owners and minority shareholders.

Firm governance will be weaker (all else equal) when owners incentivize managers to deviate from profit maximization. Firm owners benefit from weaker governance because less money will be available for the government to expropriate. Therefore, we predict that firms conducting business in countries with more predatory governments have lower incentives to

[39] The results also survive the inclusion of additional variables and alternative definitions of the variables already described in the text (ownership concentration, firm-level measure of external financing needs, corporate tax burden, R&D expenses, and quality of legal environment), with the pattern of the regression coefficients and their significance similar to those reported.

practice good governance. Moreover, the positive valuation effect of better firm governance is generally weaker when firms operate in business-nonfriendly environments.

We test our model predictions using several comprehensive data sets on international firm governance and transparency. The first data set is CLSA's 2000-2001 *Governance Indicators*. The second is S&P's 1997-2002 *Transparency Rankings*. The third data set is ISS' 2003-2006 *International Corporate Governance Quotients.* Some of the econometric problems are overcome by using firm-level data on firms' perception of obstacles imposed by government policies (*World Business Environment Survey*).

The empirical results support our model's predictions. Firms located in countries with states likely to expropriate firm assets practice weaker governance and disclose less information. The positive valuation effect of sounder governance is weaker or non-existent in more predatory states. We also observe that the governance structure of firms is more similar in such countries. This provides further evidence that firm-specific factors play a smaller role in determining differences in the formation of governance when states are predatory.

We show that government predation aggravates firm governance problems. When states pursue predatory policies, firm governance will likely not improve. Investors need to be aware that stricter securities laws may not be enough for firms to enhance their governance standards unless countries improve their policies towards businesses by respecting property rights, fighting corruption, and reducing crime.

REFERENCES

Acemoglu D., S. Johnson, and J. Robinson, 2001, The colonial origins of comparative development: An empirical investigation, *American Economic Review* 91, 1369-1401.

Aggarwal, R., I. Erel, R. Stulz, and R. Williamson, 2007, Do U.S. firms have better corporate governance? A cross-country examination of the relation between corporate governance and shareholder wealth, working paper, Ohio State University.

Aggarwal, R., and R. Williams, 2006, Did new regulations target the relevant corporate governance attributes? working paper, Georgetown University.

Alexeev, M., E. Janeba, and S. Osborne, 2004, Taxation and evasion in the presence of extortion by organized crime, *Journal of Comparative Economics* 32, 375-388.

Anand, A., F. Milne, and L. Purda, 2007, Voluntary adoption of corporate governance mechanisms, working paper, Queen's University.

Ayyagagri, M., A. Demirgüç-Kunt, and V. Maksimovic, 2005, How important are financing constraints? The role of finance in business environment, working paper, University of Maryland.

Ayyagagri, M., A. Demirgüç-Kunt, and V. Maksimovic, 2006, What determines protection of property rights: An analysis of direct and indirect effects, *Review of Financial Studies*, forthcoming.

Beck, T., A. Demirgüç-Kunt, and V. Maksimovic, 2005, Financial and legal constraints to firm growth: Does firm size matter? *Journal of Finance* 60, 137-177.

Bertrand, M., F. Kramarz, A. Schoar, and D. Thesmar, 2006, Politically connected CEOs and corporate outcomes: Evidence from France, working paper, University of Chicago.

Black, B., H. Jang, and W. Kim, 2006a, Does corporate governance predict firms' market values? Evidence from the Korean market, *Journal of Law, Economics, and Organization* 22, 366-413.

Black, B., H. Jang, and W. Kim, 2006b, Predicting firms' governance choices: Evidence from Korea, *Journal of Corporate Finance* 12, 660-691.

Black, B., and R. Kraakman, 1996, A self-enforcing model of corporate law, *Harvard Law Review* 109, 1911-1982.

Black, B., and A. Tarassova, 2003, Institutional reform in transition: A case study of Russia, *Supreme Court Economic Review* 10, 211-278.

Boubakri, N., J-C. Cosset, and W. Saffar, 2006, Political connections of newly privatized firms, working paper, HEC-Montreal.

Bruno, V., and S. Claessens, 2007, Corporate governance and regulation: Too much of a good thing? working paper, The World Bank.

Campbell, J., 1996, Understanding risk and return, *Journal of Political Economy* 104, 298-345.

Chen, K., Z. Chen, and K. Wei, 2003, Disclosure, corporate governance, and the cost of equity capital: Evidence from Asia's emerging markets, working paper, Hong Kong University of Science and Technology.

Cheung, Y-L., L. Jing, R. Rau, and A. Stouraitis, 2007, How does the grabbing hand grab? Tunneling assets from Chinese listed companies to the state, working paper, Purdue University.

Chhaochharia, V., and L. Laeven, 2007, The invisible hand in corporate governance, working paper, The World Bank.

Claessens, S., and L. Laeven, 2003, Financial development, property rights, and growth, *Journal of Finance* 58, 2401-2436.

CLSA Emerging Markets, 2001. *Saints and Sinners: Who's got religion?* (Hong Kong, CLSA).

CLSA Emerging Markets, 2002. *Make Me Holy. But Not Yet!* (Hong Kong, CLSA).

Demirgüç-Kunt, A. and V. Maksimovic, 1998, Law, finance, and firm growth, *Journal of Finance* 53, 2107-2137.

Denis, D., and J. McConnell, 2003, International corporate governance, *Journal of Financial and Quantitative Analysis* 38, 1-38.

Desai, M., and D. Dharmapala, 2004, Corporate tax avoidance and firm value, working paper, National Bureau of Economic Research.

Desai, M., and D. Dharmapala, 2006, Corporate tax avoidance and high powered incentives, *Journal of Financial Economics* 79, 145-179.

Desai, M., A. Dyck, and L. Zingales, 2006, Theft and taxes, *Journal of Financial Economics*, forthcoming.

Djankov, S., R. La Porta, and A. Shleifer, 2006, The law and economics of self-dealing, working paper, National Bureau of Economic Research.

Doidge, C., G. A. Karolyi, and R. Stulz, 2003, Why are foreign firms listed in the U.S. worth more? *Journal of Financial Economics* 71, 205-238.

Doidge, C., G. A. Karolyi, and R. Stulz, 2006, Why do countries matter so much for corporate governance? working paper, Ohio State University.

Durnev, A., and E. H. Kim, 2005, To steal or not to steal: Firm attributes, legal environment, and valuation, *Journal of Finance* 60, 1461-1493.

Dyck, A., N. Volchkova, and L. Zingales, 2006, The corporate governance role of the media: Evidence from Russia, working paper, University of Chicago.

Dyck, A. and L. Zingales, 2002, The corporate governance role of the media, in R. Islam eds.: *The Right to Tell: The Role of the Media in Development* (The World Bank, Washington, D.C.)

Egorov, G., S. Guriev, and K. Sonin, 2007, Media freedom, bureaucratic incentives, and the resource curse, working paper, Harvard University.

Faccio, M., 2006, Politically connected firms, *American Economic Review* 96, 369-386.

Faccio, M., R. Masulis, and J. McConnel, 2005, Political connections and corporate bailouts, *Journal of Finance* 61, 2597-2635.

Fan, J., S. Titman, and G. Twite, 2005, An international comparison of capital structure and debt maturity choices, working paper, The Chinese University of Hong Kong.

Fershtman, C., and K. Judd, 1987, Equilibrium incentives in oligopoly, *American Economic Review* 77, 927-940.

Fisman, R., 2001, Estimating the value of political connections, *American Economic Review* 91, 1095-.1102

Frankel, J., and D. Romer, 1996, Trade and growth: An empirical investigation, working paper, National Bureau of Economic Research.

Friedman, E., S. Johnson, D. Kaufmann, and P. Zoido-Lobaton, 2000, Dodging the grabbing hand: The determinants of unofficial activity in 69 countries, *Journal of Public Economics* 76, 459-493.

Gillan, S., J. Hartzell, and L. Starks, 2005, Tradeoffs in corporate governance: Evidence from board structures and charter provisions, working paper, University of Texas – Austin.

Gompers, P. A., J. L. Ishi, and A. Metrick, 2003, Corporate governance and equity prices, *Quarterly Journal of Economics* 118, 107-155.

Goriaev, A., and K. Sonin, 2006, Is political risk company-specific? The market side of the YUKOS affair, working paper, New Economic School.

Gourevitch, P., and J. Shinn, 2006. *Political Power and Corporate Control* (Princeton University Press, Princeton).

Hadi, A. S., 1994, A modification of a method for the detection of outliers in multivariate samples, *Journal of the Royal Statistical Societ*y, Series B 56, 393-396.

Hall, R., and C. Jones, 1999, Why do some countries produce so much more output per worker than others? *Quarterly Journal of Economics* 114, 83-116.

Harvey, C., K. Lins, and A. Roper, 2004, The effect of capital structure when expected agency costs are extreme, *Journal of Financial Economics* 74, 3-30.

Heckman, J., 1979, Sample selection bias as a specification error, *Econometrica* 47, 153-161.

Himmelberg, C., R. Hubbard, and D. Palia, 1999, Understanding the determinants of managerial ownership and the link between ownership and performance, *Journal of Financial Economics* 53, 353-383.

Johnson, S., P. Boone, A. Breach, and E. Friemdan, 2000, Corporate governance and the Asian financial crisis, *Journal of Financial Economics* 58, 141-186.

Johnson, S., D. Kaufmann, and P. Zoido-Lobaton, 1998, Regulatory discretion and the unofficial economy, *American Economic Review* 88, 387-392.

Khanna, T., J. Kogan, and K. Palepu, 2002, Globalization and corporate governance convergence? A cross-country analysis, working paper, Harvard University.

Khanna, T., J. Kogan, and K. Palepu, 2006, Globalization and similarities in corporate governance: A cross-country analysis, *Review of Economics and Statistics* 88, 69-90.

Khanna, T., K. Palepu, and S. Srinivasan, 2004, Disclosure practices of foreign companies interacting with U.S. markets, *Journal of Accounting Research* 42, 475-508.

Klapper, L., and I. Love, 2002, Corporate governance, investor protection, and performance in emerging markets, *Journal of Corporate Finance* 10, 703-728.

Krishnamurti, C., A. Sevic, and Z. Sevic, 2003, Legal environment, firm-level corporate governance, and expropriation of minority shareholders in Asia, working paper, Nanyang Technological University.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. W. Vishny, 2002, Investor protection and corporate valuation, *Journal of Finance* 57, 1147-1170.

Lee, C., and D. Ng, 2006, Corruption and international valuation: Does virtue pay?, working paper, Cornell University.

Leuz, C., and F. Oberholzer, 2006, Political relationships, global financing, and corporate transparency, *Journal of Financial Economics* 81, 411-439.

Mauro, P., 1995, Corruption and growth, *Quarterly Journal of Economics* 110, 681-712.

Mitton, T., 2002, A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis, *Journal of Financial Economics*, 64, 215-241.

Petersen, M., 2005, Estimating standard errors in finance panel datasets: Comparing approaches, working paper, National Bureau of Economic Research.

Rajan, R., and L. Zingales, 1998, Financial development and growth, *American Economic Review* 88, 559-586.

Rajan, R., and L. Zingales, 2003, The great reversals: The politics of financial development in the 20th Century, *Journal of Financial Economics* 69, 5-50.

Roe, M., 2003. *Political Determinants of Corporate Governance* (Oxford University Press, Oxford).

Seawright, Stephen, 2001, Rankings a dangerous exercise, *South China Morning Post*, A2.

Shleifer, A., and D. Wolfenzon, 2002, Investor protection and equity markets, *Journal of Financial Economics* 66, 3-27.

Siegel, Jordan, 2005, Can foreign firms bond themselves effectively by renting U.S. securities laws? *Journal of Financial Economics* 75, 319-356.

Stulz, R., 2005, Limits of globalization, *Journal of Finance*, 60, 1595-1638.

Stulz, R., 2006, Financial globalization, corporate governance, and Eastern Europe, working paper, Ohio State University.

Wooldrige, J. W., 2001. *Econometric Analysis of Cross Section and Panel Data*. (MIT Press, Cambridge).

Table I
Variables, definitions, and sources

Variables	Definitions	Sources
CLSA, S&P, and ISS samples		
CLSA governance	CLSA governance is defined as 0.15 multiplied by the sum of six factors: (i) managerial incentives and discipline towards value-maximizing actions (9 attributes); (ii) timeliness and accuracy of financial information disclosure (10 attributes); (iii) board independence (7 attributes); (iv) board accountability (8 attributes); (v) enforcement and management accountability (6 attributes); and (vi) minority shareholder protection (10 attributes). Refer to Appendix A for a detailed description of individual attributes. Data frequency is annual from 2000 through 2001. The variable ranges from 0 through 90. Larger values indicate better governance.	2000 and 2001 CLSA Corporate Governance Scores
S&P transparency	S&P transparency is defined as the number of items disclosed in a firm's financial statements. The items are grouped into three categories: (i) ownership structure and investor relations (22 items); (ii) accounting and financial information (33 items); and (iii) board and management structure (35 items). Refer to Appendix B for a detailed description of individual items. Data frequency is annual from 1997 through 2002. The variable ranges from 0 through 91. Larger values indicate more disclosed items.	1997-2002 S&P Transparency and Disclosure Survey
ISS governance	ISS governance is defined as the percentage of 44 governance attributes for which a firm meets or exceeds the minimum satisfactory standards. The attributes are grouped into four sub-categories: (i) board (25 attributes); (ii) audit (3 attributes); (iii) anti-takeover (6 attributes); and (iv) compensation and ownership (10 attributes). Refer to Appendix C for a detailed description of individual attributes. Data frequency is annual from 204 through 2005. The variable ranges from 1 through 44. Larger values indicate better governance.	2004-2005 Institutional Shareholder Services Governance Quotients
WBES obstacles sample		
Performance	Performance is measured as predicted future (one year) percentage change in sales. This variable is available for 2000.	The World Bank's 2000 World Business Environment Survey
Firm size	This variable takes a value of 1 (small) if a company employs at least 50 workers; 2 (medium) if a company employs more than 50 but less than 500 workers; and 3 (large) if a company employs more than 50 workers. This variable is available for 2000.	
Audit	This variable takes a value of 1 if a firm's financial statements are audited, and 0 otherwise. This variable is available for 2000.	
Sector dummies	This is an indicator variable for the following sectors: manufacturing, services, agriculture, construction, and other. This variable is available for 2000.	
Foreign ownership	This is measured as a percentage of foreign ownership. This variable is available for 2000.	
State ownership	This is measured as a percentage of state ownership. This variable is available for 2000.	

Laws and regulations	Laws and regulations are calculated as the sum of three components: (i) availability of laws and regulations; (ii) predictability of laws and regulations; and (iii) confidence in current judicial system. The score is cumulative and based on the answers to the following three questions: (i) "In general, information on the laws and regulations affecting my firm is easy to obtain" (The possible answers are: 1. Fully disagree; 2. Disagree in most cases; 3. Tend to disagree; 4. Tend to agree; 5. Agree in most cases; and 6. Fully agree); (ii) "In general, interpretations of laws and regulations affecting my firm are consistent and predictable" (1. Fully disagree; 2. Disagree in most cases; 3. Tend to disagree; 4. Tend to agree; 5. Agree in most cases; and 6. Fully agree); and (iii) "In resolving business disputes, do you believe your country's court system?" (1. Never; 2. Seldom; 3. Sometimes; 4. Frequently; 5. Usually; and 6. Always). This variable is available for 2000 and it ranges from 3 through 18. Larger values indicate better availability and predictability of laws.	
Corruption obstacle	Corruption-based obstacles are defined as the answer to the following question: "Please judge on a four-point scale, where "4" means a major obstacle, "3" means a moderate obstacle, "2" means a minor obstacle, and "1" means it is no obstacle, how problematic corruption is for the operation and growth of your business?" This variable is available for 2000 and it ranges from 1 to 4. Larger values indicate greater corruption obstacles.	
Taxes and regulation obstacle	Tax and regulation-based obstacles are defined as the answer to the following question: "Please judge on a four-point scale, where "4" means a major obstacle, "3" means a moderate obstacle, "2" means a minor obstacle, and "1" means it is no obstacle, how problematic taxes and regulation are for the operation and growth of your business?" This variable is available for 2000 and it ranges from 1 to 4. Larger values indicate more tax and regulation-type obstacles.	
Crime obstacle	Crime-related obstacles are defined as the answer to the following question: "Please judge on a four-point scale, where "4" means a major obstacle, "3" means a moderate obstacle, "2" means a minor obstacle, and "1" means it is no obstacle, how problematic organized crime and mafia are for the operation and growth of your business?" This variable is available for 2000 and it ranges from 1 to 4. Larger values indicate more crime-related obstacles.	
Composite obstacles	The composite obstacles index is defined as the sum of the crime, tax and regulation, and corruption obstacles. This variable is available for 2000 and it ranges from 3 to 12. Larger values indicate greater composite obstacles.	
Predation and autocracy		
Corruption	Corruption is defined as the degree to which corruption distorts economic and financial environment, reducing the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability. Data frequency is annual from 1996 through 2005. This variable ranges from 1 through 6. Larger values indicate more corruption.	
Risk of government expropriation	Risk of government expropriation measures country-specific risk of expropriation by governments based on a business environment ranking that quantifies the attractiveness of the business environment. Data frequency is annual from 1996 through 2004. This variable ranges from 1 through 5. Larger values indicate greater risk of expropriation.	1996-2004 International Country Risk Guide
Lack of property rights protection	Lack of property rights protection measures the degree of property rights protection in a country. Data frequency is annual from 1996 through 2004. This variable ranges from 1 through 5. Larger values indicate worse protection of property rights.	
Government stance towards business	Government stance towards business measures the country-level assessment of the likelihood that the current government will implement unliberal and business-unfriendly policies. Data frequency is annual from 1996 through 2004. This variable ranges from 1 through 5. Larger values indicate less business-friendly governments.	
Freedom to compete	Freedom to compete measures the country assessment of government policies towards establishing a free competitive environment. Data frequency is annual from 1996 through 2004. This variable ranges from 1 through 5. Larger values indicate less freedom to compete.	1996-2004 Economist Intelligence Unit

Quality of bureaucracy	Quality of bureaucracy quantifies whether bureaucracy impedes fair business practices in a country. Data frequency is annual from 1996 through 2004. This variable ranges from 1 through 5. Larger values indicate worse bureaucracy quality.	
Impact of crime	Impact of crime measures whether violent crime is a problem for government and business. Data frequency is annual from 1996 through 2004. This variable ranges from 1 through 6. Larger values indicate more crime.	
Predation	Predation is defined as the sum of seven indexes: (i) corruption; (ii) risk of government expropriation; (iii) lack of property rights protection; (iv) government stance towards business; (v) freedom to compete; (vi) quality of bureaucracy; and (vii) impact of crime. Data frequency is annual from 1996 through 2004. This variable ranges from 7 through 36. Larger numbers indicate a greater degree of government predation.	
Autocracy	Autocracy is defined as the autocracy index plus two times the government instability index. The autocracy index is calculated as POLITY's "autocratic government" variable minus POLITY's "democratic government" variable. The "autocratic government" variable measures general closedness of political institutions. The "democratic government" index measures general openness of political institutions. Government stability is the International Country Risk Guide's assessment of the government's ability to stay in office and carry out its declared program(s), depending upon such factors as the type of governance, cohesion of the government and governing parties, approach of an election, and command of the legislature. Data frequency is annual from 1996 through 2004. This variable ranges from 2 through 44. Larger values indicate more autocratic governments.	POLITY IV and 1996-2004 International Country Risk Guide
Country variables		
Anti-self dealing	Anti-self dealing is an index of legal rules and private enforcement mechanisms, such as disclosure, approval, and litigation, governing a specific self-dealing transaction based on ex-ante and ex-post control of self-dealing. This variable ranges from 0 through 1. See Djankov, La Porta, and Shleifer (2006) for details. Larger values indicate stricter measures against self-dealing.	Djankov, La Porta, and Shleifer (2006)
GDP per capita	GDP per capita is defined as Gross Domestic Product per capita in real U.S. dollars. Data frequency is annual from 1996 through 2004.	1996-2004 The World Bank's World Economic Indicators
Financial development	Financial development is defined as total market capitalization of listed companies in a country scaled by Gross Domestic Product. Data frequency is annual from 1996 through 2004.	
Inflation	Inflation is defined as the logarithm of one plus the rate of inflation in 2000.	
Black market	Black market measures the extent to which a parallel (black-market, unrecorded) economy impairs economic development. Data frequency is annual from 1996 through 2004. This variable ranges from 0 through 10. Larger values indicate more adverse effects of black markets.	1996-2004 Economist Intelligence Unit
Freedom of press	Freedom of press is the assessment of the state of press freedom in a country based on 50 criteria. It includes every kind of violation directly affecting journalists (such as murders, imprisonment, physical attacks, and threats) and news media (censorship, confiscation of issues, searches, and harassment). Data frequency is annual from 2000 through 2004. This variable ranges from 0 through 50. Larger values indicate more oppressed press.	2000-2004 Journalists without Borders
Investor protection	Investor protection is an aggregate index of shareholder rights. It is defined as the sum of six items: (i) the country allows shareholders to mail their proxy vote to the firm; (ii) shareholders are not required to deposit their shares prior to the general shareholders' meeting; (iii) cumulative voting or proportional representation of minorities mechanism is in place; (iv) an oppressed minorities mechanism is in place; (v) rules explicitly mandate or set as a default rule that shareholders hold the first opportunity to buy new issues of stock; and (vi) the minimum percentage of share capital that entitles a shareholder to call for an extraordinary shareholders' meeting is less than or equal to ten percent. This variable ranges from 0 through 6. Larger values indicate better protection of investor rights.	Djankov, La Porta, and Shleifer (2006)

Rule of law	Rule of law is the assessment of the law and order tradition of the country, based on two sub-components. The law sub-component assesses the strength and impartiality of the legal system, and the order sub-component assesses popular observance of the law. Data frequency is annual from 1997 through 2006. This variable ranges from 0 through 10. Larger values indicate better rule of law.	1996-2004 International Country Risk Guide
Corporate tax burden	Corporate tax burden is the assessment of how corporate taxation impedes the development of private businesses. Data frequency is annual from 1996 through 2004. This variable ranges from 1 through 5. Larger values indicate a heavier tax burden.	1996-2004 Economist Intelligence Unit
Instrumental variables		
Distance from the equator	Distance from the equator is defined for each country as the absolute value of latitude (in degrees) divided by 90. This variable ranges from 0 through 1. Larger numbers indicate further distance from the equator.	CIA's World Factbook
Western European language	Western European language dummy takes a value of 1 for countries where a Western European language (French, German, Portuguese, or Spanish) is one of the spoken languages, and 0 otherwise.	
Trade share	Trade share is defined as the logarithm of the predicted trade share of an economy, based on a gravity model of international trade that uses a country's population and geographical features. This variable ranges from 0 to 1. Larger values indicate a greater trade share.	Frankel and Romer (1996)
Firm and industry variables		
Valuation	Valuation is measured by Tobin's Q. Tobin's Q is defined as the sum of total assets plus market value of common stock less book value of equity over total assets. The market value of equity is the number of common shares outstanding times the year-end price. This variable is winsorized at the 1st and 99th percentile. Data frequency is annual from 1997 through 2006.	Worldscope
Growth opportunities	Growth opportunities are measured as the lagged growth rate in net sales. This variable is winsorized at the 1st and 99th percentile. Data frequency is annual from 1996 through 2004.	
Industry dependence on external finance	Industry dependence on external financing is defined as industry average capital expenditures minus cash flows from operations divided by capital expenditures. The variable for non-U.S. firms is computed using data on capital expenditures and cash flows for firms from the same 4-digit SIC industry in the U.S. See Rajan and Zingales (1998) for details. U.S. firm data are grouped from 1990 through 2001.	Compustat
Size	Size is defined as the lagged logarithm of sales. Data frequency is annual from 1996 through 2004.	Worldscope
Cash	Cash is defined as lagged cash over total assets. Data frequency is annual from 1996 through 2004.	
Cross-listing dummy	Cross-listing dummy is equal to 1 if the firm's shares are listed on a U.S. exchange, and 0 otherwise. Privately placed ADRs through Rule 144a and over-the-counter stocks are excluded. Data frequency is annual from 1996 through 2004.	Bank of New York
Industry classification	Industries are grouped across 2-digit SICs. They are: petroleum (SIC 13, 29), consumer durables (SIC 30, 36, 37, 50, 55, 57), basic industry (SIC 8, 10, 12, 14, 24, 26, 28, 33), food and tobacco (SIC 20, 21, 54), construction (SIC 15, 16, 17, 32), capital goods (SIC 34, 35, 38, 39), transportation (SIC 40, 41, 42, 44, 45, 47), textiles and trade (SIC 22, 23, 51, 53, 56, 59), services (SIC 7, 73, 75, 80, 82, 83, 87, 96), leisure (SIC 27, 58, 70, 79), unregulated utilities (SIC 48), and regulated utilities (SIC 49).	Campbell (1996)

Ownership concentration	Ownership concentration is defined as the lagged cumulative percentage of shares held by insiders (closed-held shares), which include senior corporate officers and directors and their immediate families, shares held in trusts, shares held by another corporation (except shares held in a fiduciary capacity by financial institutions), shares held by pension/benefit plans, and shares held by individuals who hold five percent or more of shares outstanding. In Japan, closely-held shares represent the holdings of the ten largest shareholders. For firms with more than one class of shares, closely-held shares for each class are added together. Data frequency is annual from 1996 through 2004.	
Firm dependence on external finance	Firm dependence on external financing is defined as the lagged difference between the growth rate in total assets less the maximum sustainable growth rate, where the latter is equal to *ROE* / (1 - *ROE*), and *ROE* is the return on equity (see Demirgüç-Kunt and Maksimovic (1998) for details). Data frequency is annual from 1996 through 2004.	Worldscope
Fixed assets	Fixed assets are defined as the lagged ratio of property, plant, and equipment to sales. Data frequency is annual from 1996 through 2004.	
R&D	R&D is defined as lagged research and development expenditures scaled by sales. Data frequency is annual from 1996 through 2004.	
Short-term debt	Short-term debt is defined as the lagged ratio of short-term debt to sales. Data frequency is annual from 1997 through 2006.	
Exports	Exports are defined as the lagged value of export revenues over sales. Data frequency is annual from 1997 through 2006.	
Employment	Employment is defined as the lagged ratio of the number of employees to sales. Data frequency is annual from 1997 through 2006.	

Table II
CLSA, S&P, and ISS samples

This table reports summary statistics (averages) for the CLSA, S&P, and ISS samples by country. Countries are sorted by GDP per capita in 2000. CLSA governance is either for 2000 or 2001. S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. ISS governance is for December 2001. All of the other variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Country	GDP per capita	CLSA governance	Number of firms, CLSA	S&P transparency	Number of firms, S&P	ISS governance	Number of firms, ISS	Corruption	Risk of expropriation	Lack of property rights protection	Freedom to compete	Government stance toward business	Quality of bureaucracy	Impact of crime	Predation	Autocracy	Anti-self dealing
India	$459	49.62	83	29.36	42	-	-	4	2	3	3	3	4	2	21	7	0.55
Pakistan	$516	27.83	11	29.04	11	-	-	5	2	3	4	3	4	3	24	13	0.41
China	$824	40.90	49	41.78	17	-	-	6	3	4	3	3	4	3	26	17	0.78
Indonesia	$994	33.48	21	30.02	14	-	-	6	3	3	4	3	4	3	26	11	0.68
Philippines	$1,167	36.80	21	24.70	9	-	-	5	1	2	3	3	4	4	22	15	0.24
Columbia	$2,290	44.62	1	15.00	1	-	-	5	2	3	2	2	3	5	22	9	0.58
Peru	$2,368	67.68	1	21.09	8	-	-	3	2	3	3	2	3	4	20	6	0.41
Russia	$2,455	39.05	3	33.24	42	-	-	6	3	3	4	3	5	5	29	5	0.48
Thailand	$2,805	50.45	25	37.09	28	-	-	5	1	1	3	2	3	3	18	5	0.85
Turkey	$3,134	33.48	20	-	-	-	-	4	2	2	2	3	4	3	20	7	0.43
Venezuela	$3,300	-	-	24.17	2	-	-	4	2	4	3	3	4	4	24	5	0.09
Mexico	$3,819	52.03	14	21.90	18	-	-	3	2	3	3	2	3	4	20	4	0.18
South Africa	$3,985	61.72	45	-	-	-	-	4	1	1	4	3	3	5	21	5	0.81
Poland	$4,223	30.11	7	-	-	-	-	4	1	2	2	2	3	3	17	9	0.30
Brazil	$4,624	52.71	36	24.04	30	-	-	4	2	3	3	3	3	4	22	6	0.29
Malaysia	$4,797	53.14	47	37.60	51	-	-	4	2	2	3	3	2	2	18	9	0.95
Czech Republic	$5,311	30.89	3	-	-	-	-	3	1	2	2	2	4	3	17	10	0.34
Chile	$5,354	56.18	18	29.42	21	-	-	3	1	1	1	1	2	3	12	3	0.63
Hungary	$5,425	42.17	3	-	-	-	-	3	1	2	2	2	3	3	16	7	0.20
Argentina	$7,933	52.99	2	23.94	9	-	-	4	2	2	3	3	3	3	20	6	0.44
Portugal	$12,794	-	-	44.71	7	49.74	14	2	1	1	2	2	4	2	14	2	0.49
Korea	$13,062	46.44	36	34.17	48	-	-	4	1	1	2	3	2	2	15	8	0.46
Greece	$13,105	52.11	2	34.75	2	58.83	44	2	1	2	2	3	4	2	16	19	0.25
Taiwan	$13,953	48.91	60	20.17	39	-	-	5	1	1	2	2	2	2	15	7	0.56
Israel	$17,067	18.72	5	-	-	-	-	4	1	2	2	2	3	2	16	10	0.71
New Zealand	$17,548	-	-	51.0	1	53.61	54	2	1	1	1	2	1	2	10	4	0.95
Spain	$17,798	-	-	43.99	17	49.31	18	3	1	2	2	2	3	2	15	2	0.37
Italy	$20,885	-	-	45.98	28	51.11	71	4	1	2	2	2	4	4	19	4	0.39
U.K.	$21,667	-	-	58.59	139	66.28	168	2	1	1	1	1	1	2	9	2	0.93
Canada	$22,541	-	-	-	-	56.81	530	5	2	3	2	2	3	5	10	2	0.65
Australia	$23,838	-	-	56.69	26	50.87	119	2	1	1	1	2	1	2	10	2	0.59
Hong Kong	$24,218	56.56	46	39.71	43	54.89	110	4	2	1	1	1	1	2	12	2	0.96
Ireland	$27,741	-	-	58.70	5	51.52	67	5	1	1	2	2	2	2	15	4	0.68
Singapore	$28,230	58.83	47	48.22	27	55.98	16	3	1	1	2	1	1	1	10	14	1.00
France	$29,811	-	-	54.48	47	55.68	83	4	1	1	2	2	3	2	15	7	0.85

Belgium	$30,830	-	-	50.50	8	54.10	43	3	1	1	2	2	3	2	14	4	0.54
Netherlands	$30,967	-	-	47.39	27	48.15	25	1	1	1	2	2	2	2	11	2	0.21
Sweden	$31,206	-	-	51.74	18	57.28	47	1	1	1	1	2	2	1	9	4	0.34
U.S.	$31,996	-	-	68.56	485	60.04	5,296	3	1	1	1	1	2	3	12	6	0.65
Finland	$32,024	-	-	54.40	5	66.82	31	1	1	1	2	2	2	1	10	4	0.46
Germany	$32,623	-	-	43.72	36	58.24	85	3	1	1	2	2	2	2	13	2	0.28
Austria	$32,763	-	-	42.83	2	57.81	19	3	1	1	2	2	2	1	12	6	0.21
Norway	$37,954	-	-	43.13	4	54.01	21	2	1	1	2	2	2	1	11	4	0.44
Denmark	$38,521	-	-	41.53	6	58.07	22	1	1	2	2	2	2	1	11	4	0.47
Japan	$44,830	-	-	45.36	150	54.69	589	4	1	1	2	2	2	1	13	6	0.48
Switzerland	$46,737	-	-	40.15	20	61.75	58	2	1	1	2	2	1	1	10	4	0.27
			Total: 606		Total: 1,493		Total: 7,530										
Average	$16,532	45.50	24.24	39.56	38.28	55.89	327.39	3.48	1.39	1.78	2.24	2.20	2.72	2.59	16.13	6.39	0.52

Table III
Correlation coefficients, CLSA, S&P, and ISS samples

This table reports the correlation coefficients between the main variables for the CLSA, S&P, and ISS samples. The CLSA sample is either for 2000 or 2001. S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. ISS governance is for December 2005. All of the other variables are for 2000. Numbers in parentheses are probability levels at which the hypothesis of zero correlation can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in boldface. All of the variables are defined in Appendixes A, B, C, and D and Table I.

	CLSA governance	ISS governance	S&P transparency	Valuation	GDP per capita	Corruption	Risk of expropriation	Lack of property rights protection	Freedom to compete	Government stance toward business	Quality of bureaucracy	Impact of crime	Predation	Autocracy
ISS governance	-0.060													
	(0.58)													
S&P transparency	**0.172**	**0.143**												
	(0.00)	(0.00)												
Valuation	**0.189**	0.000	**0.178**											
	(0.00)	(0.99)	(0.00)											
GDP per capita	**0.289**	-0.002	**0.563**	-0.031										
	(0.00)	(0.84)	(0.00)	(0.49)										
Corruption	**-0.371**	**-0.095**	**-0.489**	-0.011	**-0.492**									
	(0.00)	(0.00)	(0.00)	(0.79)	(0.00)									
Risk of expropriation	**-0.231**	**-0.056**	**-0.495**	0.024	**-0.363**	**0.483**								
	(0.00)	(0.00)	(0.00)	(0.57)	(0.00)	(0.00)								
Lack of property rights protection	**-0.316**	**-0.083**	**-0.534**	0.023	**-0.633**	**0.414**	**0.826**							
	(0.00)	(0.00)	(0.00)	(0.58)	(0.00)	(0.00)	(0.00)							
Freedom to compete	**-0.100**	**-0.122**	**-0.735**	-0.034	**-0.684**	**0.356**	**0.293**	**0.487**						
	(0.01)	(0.00)	(0.00)	(0.42)	(0.00)	(0.00)	(0.00)	(0.00)						
Government stance toward business	**-0.259**	**-0.196**	**-0.739**	-0.008	**-0.799**	**0.370**	**0.376**	**0.585**	**0.746**					
	(0.00)	(0.00)	(0.00)	(0.85)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)					
Quality of bureaucracy	**-0.393**	**0.027**	**-0.393**	0.033	**-0.872**	**0.464**	**0.477**	**0.757**	**0.666**	**0.754**				
	(0.00)	(0.00)	(0.00)	(0.44)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)				
Impact of crime	-0.032	**0.171**	**0.080**	**-0.119**	**-0.539**	**0.211**	0.059	**0.182**	**0.569**	**0.430**	**0.470**			
	(0.44)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.15)	(0.00)	(0.00)	(0.00)	(0.00)			
Predation	**-0.328**	**-0.056**	**-0.582**	-0.019	**-0.854**	**0.626**	**0.649**	**0.811**	**0.795**	**0.822**	**0.897**	**0.590**		
	(0.00)	(0.00)	(0.00)	(0.66)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)		
Autocracy	**-0.289**	**0.038**	**-0.148**	-0.058	**-0.076**	**0.372**	**0.259**	**0.433**	**0.242**	**0.226**	**0.267**	**-0.160**	**0.308**	
	(0.00)	(0.00)	(0.00)	(0.17)	(0.06)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
Anti-self dealing	**0.311**	0.008	**0.315**	0.004	**0.504**	**-0.036**	0.048	**-0.320**	**-0.139**	**-0.421**	**-0.514**	**-0.358**	**-0.362**	0.065
	(0.00)	(0.49)	(0.00)	(0.92)	(0.00)	(0.00)	(0.24)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.11)

Table IV
WBES obstacles sample

This table reports summary statistics (averages) for the WBES sample by country. Countries are sorted by GDP per capita in 2000. WBES variables are for 2000. Audit is the proportion of firms with audited financial statements. All of the other variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Country	Number of firms	GDP per capita	Inflation	Audit	Performance	Laws and regulations	Crime obstacle	Tax obstacle	Corruption obstacle	Composite obstacles	Foreign ownership	State ownership	Size
Ethiopia	105	$116	1.43%	1.00	36.06%	10.47	1.50	2.01	2.56	6.27	6.50%	10.14%	1.86
Malawi	55	$169	26.50%	1.00	73.79%	10.50	3.15	2.11	2.62	7.89	20.08%	13.65%	2.18
Tanzania	83	$190	13.49%	1.00	34.85%	9.55	2.13	2.32	2.93	7.42	19.06%	9.28%	1.83
Madagascar	116	$246	9.62%	1.00	25.83%	7.77	2.27	2.54	3.39	8.18	9.95%	1.49%	2.08
Nigeria	93	$254	12.76%	1.00	36.80%	9.34	3.30	2.34	3.40	8.92	14.17%	10.29%	2.15
Cambodia	326	$297	7.71%	0.22	7.23%	10.68	3.11	2.19	-	-	17.54%	1.17%	1.31
Kenya	113	$328	7.06%	1.00	17.86%	9.20	2.99	2.35	3.46	8.77	23.90%	10.95%	2.27
Uganda	137	$348	4.99%	1.00	27.92%	9.88	2.81	2.21	3.13	8.22	15.31%	7.05%	1.56
Haiti	103	$367	14.07%	0.33	-0.28%	9.76	3.75	2.82	3.17	9.72	12.12%	0.72%	1.68
Bangladesh	50	$373	5.78%	0.95	19.89%	11.22	2.40	2.91	3.50	8.70	0.00%	0.00%	2.02
Zambia	84	$392	30.41%	1.00	36.60%	9.89	2.87	2.29	2.76	7.88	15.81%	5.48%	1.90
Ghana	119	$413	22.61%	1.00	27.55%	11.43	2.48	2.18	2.68	7.39	15.06%	6.48%	1.91
India	210	$459	7.33%	0.97	14.77%	11.90	1.90	2.28	2.80	6.92	9.16%	3.43%	2.22
Nicaragua	100	$466	10.68%	0.63	20.67%	10.26	2.43	2.99	2.87	8.29	7.79%	0.90%	1.62
Uzbekistan	125	$485	-	0.48	63.80%	12.03	1.64	2.60	2.24	6.64	6.94%	16.75%	1.82
Georgia	129	$499	15.96%	0.43	14.37%	11.07	2.63	3.33	3.03	9.05	7.05%	18.19%	1.53
Azerbaijan	128	$506	3.46%	0.08	-20.03%	12.59	2.37	2.98	2.76	8.22	1.65%	18.05%	1.41
Pakistan	103	$516	7.04%	0.52	5.13%	11.01	2.94	3.24	3.29	9.45	3.83%	1.80%	1.83
Senegal	124	$609	1.57%	1.00	21.81%	10.92	2.13	2.07	2.94	7.20	5.07%	2.24%	1.69
Zimbabwe	129	$621	28.24%	1.00	55.91%	10.50	2.69	2.54	2.86	8.03	17.74%	2.33%	1.90
Moldova	125	$636	18.54%	0.43	-14.74%	10.19	3.12	3.48	2.88	9.49	0.74%	21.02%	1.78
Cameroon	58	$675	3.37%	1.00	20.28%	10.00	2.37	2.33	3.39	8.20	42.24%	7.55%	1.93
Honduras	100	$711	15.99%	0.65	9.74%	10.48	2.55	2.76	2.78	8.03	9.66%	0.00%	1.70
Cote d'Ivoire	96	$743	2.95%	1.00	21.12%	10.55	2.33	2.27	3.29	8.07	29.16%	3.22%	2.05
China	101	$824	1.81%	0.43	5.03%	12.35	1.72	2.08	2.03	5.87	21.56%	18.40%	1.81
Kyrgyzstan	125	$885	22.66%	0.33	0.41%	9.48	3.13	3.54	3.34	10.09	2.25%	19.58%	1.75
Ukraine	225	$896	28.05%	0.36	3.14%	9.23	2.39	3.66	2.40	8.48	1.20%	12.09%	1.63
Albania	163	$899	15.47%	0.50	22.30%	10.34	3.23	3.05	3.25	9.53	8.42%	7.98%	1.40
Bolivia	100	$952	6.53%	0.79	3.78%	10.25	2.23	3.10	3.55	8.87	15.60%	0.00%	1.95
Armenia	125	$976	9.97%	0.18	-20.45%	10.81	1.52	3.45	1.90	6.78	1.36%	14.76%	1.40
Indonesia	101	$994	16.40%	0.53	-5.43%	9.52	2.53	2.53	2.61	7.69	13.00%	4.51%	1.87
Philippines	100	$1,167	6.89%	0.81	7.02%	12.01	2.58	3.08	3.11	8.75	14.37%	0.50%	1.95
Egypt	102	$1,226	4.66%	1.00	17.23%	11.52	2.49	2.87	3.15	8.56	9.08%	3.68%	2.19
West Bank-Gaza	100	$1,365	-	0.52	-11.21%	12.33	2.04	2.57	2.85	7.30	2.40%	1.08%	1.20
Ecuador	100	$1,425	30.63%	0.62	-6.46%	10.40	2.99	3.08	3.54	9.58	7.63%	2.30%	1.99
Romania	125	$1,460	55.75%	0.18	6.80%	9.70	2.22	3.55	2.83	8.58	9.10%	16.34%	1.47
Bulgaria	125	$1,503	138.71%	0.31	15.16%	11.29	2.58	3.10	2.59	8.27	3.97%	20.84%	1.54
Kazakhstan	127	$1,512	16.56%	0.37	9.72%	9.82	2.27	3.25	2.50	8.13	2.97%	19.80%	1.66
Guatemala	106	$1,558	7.72%	0.63	18.44%	11.38	3.01	2.75	2.62	8.38	11.32%	0.00%	1.83
El Salvador	104	$1,752	4.24%	0.93	-1.85%	11.31	3.64	2.99	3.03	9.68	10.27%	0.48%	1.92

Lithuania	112	$2,056	9.38%	0.17	8.04%	9.34	2.57	3.31	2.57	8.60	2.75%	0.53%	1.20
Dominican Republic	111	$2,062	6.06%	0.90	21.18%	10.56	2.95	2.99	2.94	8.86	14.77%	2.50%	2.16
Colombia	101	$2,290	14.87%	0.88	6.02%	10.69	3.04	3.12	2.78	8.96	26.60%	1.83%	2.36
Peru	108	$2,368	6.69%	0.79	-2.38%	11.07	2.32	3.26	2.83	8.40	14.98%	%0.05%	2.06
Namibia	95	$2,408	7.60%	1.00	36.45%	13.21	2.70	1.80	1.63	6.17	19.45%	9.47%	1.81
Russia	525	$2,455	33.16%	0.43	28.99%	9.27	2.56	3.53	2.55	8.68	0.77%	6.73%	1.70
Tunisia	52	$2,470	3.24%	1.00	19.78%	14.64	1.29	1.73	2.13	5.15	10.69%	22.95%	2.42
Belarus	125	$2,760	79.21%	0.46	10.44%	10.15	1.72	3.33	1.78	6.80	2.88%	22.42%	1.89
Thailand	422	$2,805	4.18%	0.83	37.81%	11.11	3.73	3.22	3.47	9.00	18.07%	0.70%	1.60
Turkey	150	$3,134	55.45%	0.43	10.23%	11.15	2.12	3.11	2.88	8.11	4.27%	16.37%	1.75
Belize	50	$3,141	1.33%	0.64	12.35%	13.02	1.61	2.58	2.10	6.23	9.60%	3.38%	1.38
Panama	100	$3,279	1.10%	0.92	8.86%	12.39	2.73	2.37	2.86	7.95	11.17%	1.50%	2.26
Venezuela	100	$3,300	47.90%	0.93	-1.56%	9.62	2.69	3.10	3.03	8.81	16.77%	1.53%	2.02
Mexico	100	$3,819	17.73%	0.78	24.34%	10.48	3.31	3.20	3.33	9.85	7.61%	0.00%	2.03
Costa Rica	100	$3,912	12.32%	0.80	24.62%	12.46	2.28	2.79	2.51	7.58	20.81%	4.20%	2.16
Botswana	101	$3,951	7.98%	1.00	40.43%	13.57	1.92	1.69	1.69	5.36	32.93%	17.82%	1.84
South Africa	121	$3,985	6.46%	1.00	33.37%	12.56	3.53	2.33	2.60	8.48	27.97%	6.61%	2.43
Slovakia	129	$4,160	7.04%	0.36	14.22%	11.06	2.28	3.12	2.38	7.82	1.32%	16.73%	1.53
Poland	225	$4,223	12.06%	0.53	32.67%	11.14	1.94	3.04	2.21	7.07	4.67%	12.14%	1.65
Estonia	132	$4,431	10.69%	0.34	63.36%	11.26	1.61	2.75	1.85	6.12	9.94%	6.30%	1.66
Brazil	201	$4,624	7.28%	0.82	2.57%	10.02	2.42	3.61	2.49	8.52	19.63%	1.22%	2.00
Malaysia	100	$4,797	3.09%	0.47	1.12%	12.54	1.58	1.86	1.85	5.31	4.51%	2.50%	1.70
Trinidad &Tobago	101	$5,123	3.94%	0.68	18.11%	11.69	1.56	2.78	1.78	6.14	10.95%	2.98%	1.64
Croatia	127	$5,146	4.69%	0.91	9.71%	11.46	2.10	3.33	2.62	8.13	5.08%	20.99%	1.98
Bosnia	105	$5,277	-	0.51	66.10%	10.96	1.77	3.28	2.57	7.50	4.71%	18.74%	1.70
Czech Republic	137	$5,311	6.58%	0.21	10.18%	10.49	1.79	3.20	2.14	7.09	12.02%	16.20%	1.43
Chile	100	$5,354	5.03%	0.83	8.96%	13.20	1.84	2.22	1.87	5.96	23.91%	3.49%	2.01
Hungary	129	$5,425	14.10%	0.59	27.88%	11.51	1.65	3.08	1.91	6.59	4.82%	15.67%	1.50
Uruguay	100	$6,115	14.98%	0.62	0.08%	12.45	1.21	3.23	2.12	6.44	9.82%	0.00%	2.03
Argentina	100	$7,933	-0.10%	0.78	7.82%	10.39	1.90	3.32	2.62	7.87	19.32%	0.43%	1.88
Slovenia	125	$11,659	8.59%	0.66	29.11%	11.17	1.52	2.83	1.63	6.00	9.10%	20.75%	1.80
Portugal	100	$12,794	2.62%	0.86	11.94%	12.27	1.52	1.98	1.72	5.18	13.16%	2.25%	1.86
Spain	104	$17,798	2.59%	0.71	25.15%	11.16	1.63	2.64	2.15	6.31	13.85%	4.65%	1.81
Italy	100	$20,885	2.40%	0.69	15.58%	9.88	1.97	3.25	1.76	7.05	18.23%	6.22%	2.02
U.K.	102	$21,667	2.66%	0.66	28.13%	11.27	1.41	2.78	1.29	5.47	7.03%	2.57%	1.41
Canada	101	$22,541	1.47%	0.68	17.20%	12.82	1.28	2.56	1.31	5.15	10.74%	0.43%	2.02
Singapore	99	$28,230	0.90%	0.95	11.88%	14.90	1.30	1.49	1.25	4.05	24.31%	1.87%	1.94
France	100	$29,811	1.22%	0.87	20.05%	11.84	1.40	3.19	1.60	6.24	13.13%	1.76%	1.88
Sweden	102	$31,206	0.46%	0.96	23.19%	11.46	1.27	2.64	1.18	5.07	15.15%	6.09%	1.72
U.S.	100	$31,996	2.45%	0.66	16.53%	11.94	1.51	2.38	1.84	5.73	5.68%	6.20%	1.82
Germany	100	$32,623	1.35%	0.37	10.53%	10.34	1.64	3.06	1.84	6.51	13.04%	3.65%	1.89
	Total: 10,032												
Average	123.9	$5,051	13.19%	0.69	17.43%	11.05	2.29	2.78	2.55	7.60	11.87%	7.49%	1.82

Table V
Correlation coefficients, WBES sample

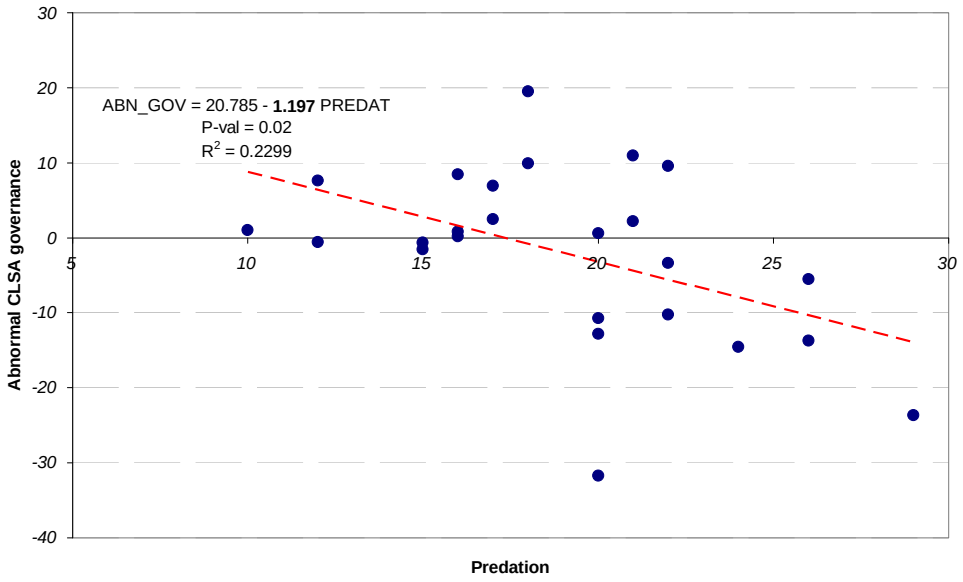
This table reports the correlation coefficients between the main variables for the WBES sample. The WBES variables are for 2000. All of the other variables are for 2000. The numbers in parentheses are probability levels at which the hypothesis of zero correlation can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold-face. All of the variables are defined in Appendixes A, B, C, and D and Table I.

	Performance	GDP per capita	Inflation	Audit	Laws and regulations	Corruption obstacle	Tax obstacle	Crime obstacle	Composite obstacles	Foreign ownership	State ownership
GDP per capita	**0.073**										
	(0.00)										
Inflation	**-0.173**	**-0.272**									
	(0.00)	(0.00)									
Audit	**0.150**	**0.078**	**-0.187**								
	(0.00)	(0.00)	(0.00)								
Laws and regulations	**0.065**	**0.126**	**-0.136**	**0.140**							
	(0.00)	(0.00)	(0.00)	(0.00)							
Corruption obstacle	**-0.071**	**-0.338**	**0.083**	-0.011	**-0.251**						
	(0.00)	(0.00)	(0.00)	(0.35)	(0.00)						
Tax obstacle	**-0.175**	**-0.054**	**0.192**	**-0.153**	**-0.279**	**0.268**					
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)					
Crime obstacle	-0.006	**-0.281**	**0.095**	**-0.031**	**-0.177**	**0.567**	**0.171**				
	(0.62)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)				
Composite obstacles	**-0.115**	**-0.318**	**0.168**	**-0.091**	**-0.311**	**0.829**	**0.610**	**0.812**			
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)			
Foreign ownership	**0.101**	**0.027**	**-0.096**	**0.220**	**0.033**	**-0.020**	**-0.107**	0.000	**-0.062**		
	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.98)	(0.00)		
State ownership	**-0.034**	**-0.038**	**0.113**	0.012	**0.116**	**-0.082**	**-0.033**	**-0.069**	**-0.082**	**-0.092**	
	(0.00)	(0.00)	(0.00)	(0.26)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
Firm size	**0.087**	**0.027**	**-0.043**	**0.348**	**0.144**	**-0.045**	**-0.078**	**-0.030**	**-0.063**	**0.189**	**0.188**
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

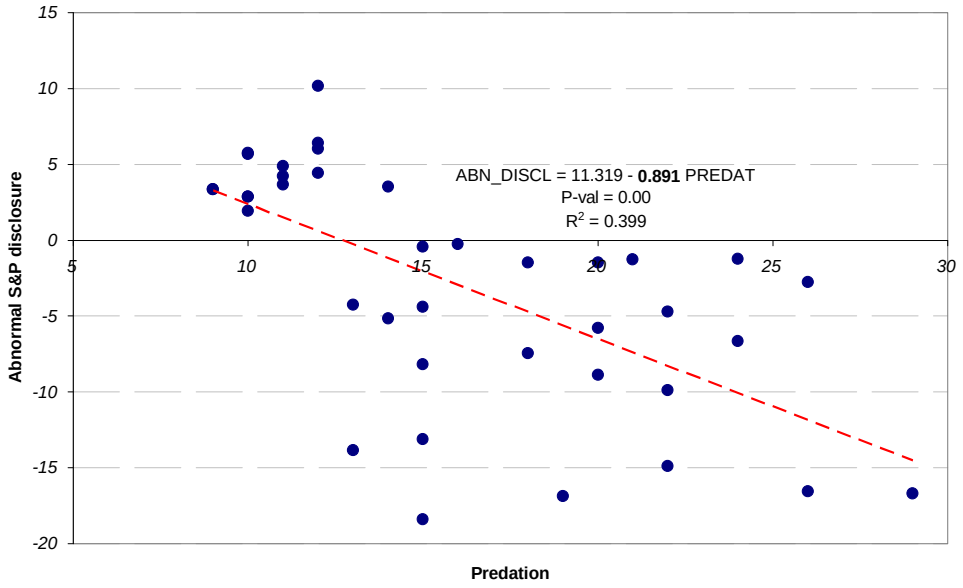
Figure 2
Abnormal firm governance and predation

These figures plot abnormal levels of firm governance against predation or composite obstacles. Panel A plots the CLSA sample, Panel B plots the S&P sample, Panel C plots the ISS sample, and Panel D plots the WBES sample. The abnormal levels of firm governance are defined as residuals of the following regressions: OLS regressions of CLSA governance, S&P disclosure, or ISS governance on growth opportunities, industry dependence on external financing, size, cash, cross-listing dummy, anti-self dealing, GDP per capita, financial development, black market, freedom of press, and industry dummies (for the CLSA, S&P, and ISS samples, respectively); probit regressions of audit on laws and regulations, firm size, foreign ownership, GDP per capita, and industry dummies (for the WBES sample). The intercepts and the slopes of the lines are determined by OLS regressions of country averages of abnormal firm governance on predation or composite obstacles. The CLSA sample is either for 2000 or 2001. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

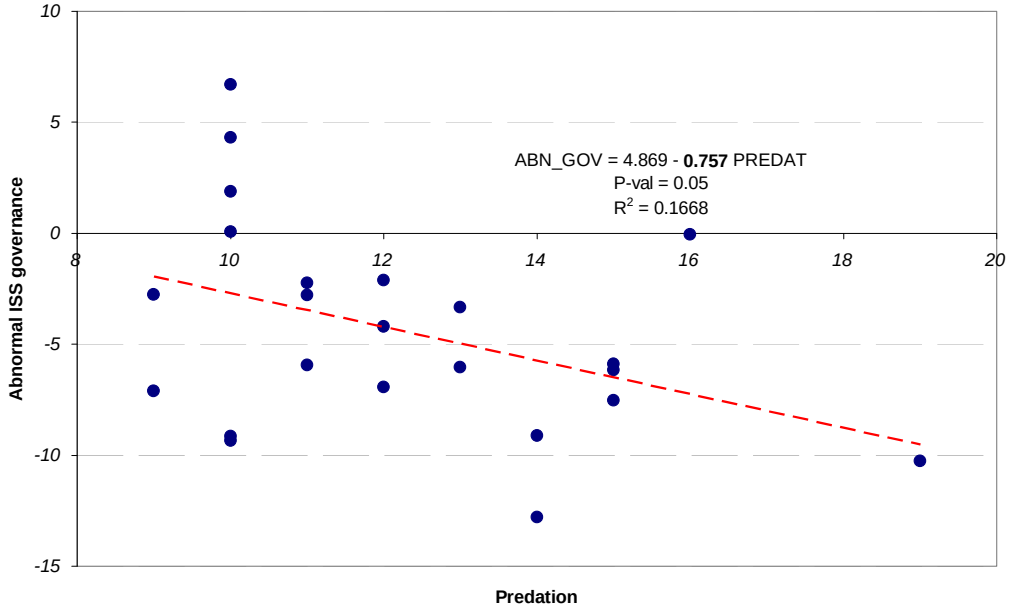
Panel A: CLSA sample



Panel B: S&P sample



Panel C: ISS sample



Panel D: WBES sample

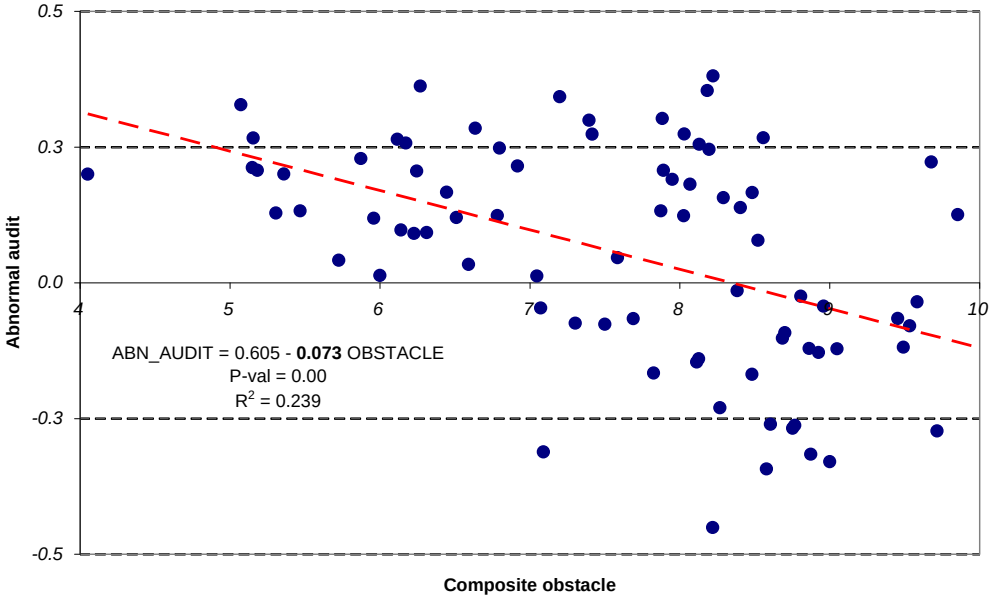


Table VI
Predation and firm governance
OLS and Probit regressions of firm governance on predation, autocracy, and obstacles with clustered (by country) standard errors

The dependent variables are CLSA governance, S&P transparency, ISS governance (Panel A), or WBES audit (Panel B). The independent variables are predation, autocracy, corruption, risk of government expropriation, lack of property rights protection, government stance towards business, freedom to compete, quality of bureaucracy, impact of crime, growth opportunities, industry dependence on external financing, cash, size, cross-listing dummy, anti-self dealing, GDP per capita, financial development, black market, freedom of press, and industry dummies (Panel A: CLSA, S&P, and ISS samples); crime obstacles, tax and regulation obstacles, corruption obstacles, composite obstacles, laws and regulations, firm size, foreign ownership, GDP per capita, and industry dummies (Panel B: WBES sample). The reported regressions in Panel A are run using OLS. The reported regressions in Panel B are run using the probit method. The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in boldface. The CLSA sample is either for 2000 or 2001. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A

Dependent variable	**CLSA governance**			**S&P transparency**			**ISS governance**		
Predation	**-1.076**	-	-	**-0.435**	-	-	**-0.279**	-	-
	(0.05)			(0.04)			(0.07)		
Autocracy	-	**-0.816**	-	-	**-0.169**	-	-	0.560	-
		(0.01)			(0.10)			(0.30)	
Corruption	-	-	**-4.208**	-	-	**-5.054**	-	-	-2.797
			(0.01)			(0.00)			(0.15)
Risk of government expropriation	-	-	-3.397	-	-	-3.278	-	-	2.336
			(0.38)			(0.52)			(0.19)
Lack of property rights protection	-	-	3.449	-	-	1.771	-	-	-1.216
			(0.26)			(0.59)			(0.69)
Government stance towards business	-	-	-0.265	-	-	**-3.137**	-	-	**-8.160**
			(0.90)			(0.05)			(0.00)
Freedom to compete	-	-	0.906	-	-	**-7.411**	-	-	-1.769
			(0.70)			(0.00)			(0.58)
Quality of bureaucracy	-	-	**-6.612**	-	-	**-5.437**	-	-	3.048
			(0.03)			(0.01)			(0.16)
Impact of crime	-	-	**-2.968**	-	-	**-8.643**	-	-	1.109
			(0.09)			(0.00)			(0.61)
Growth opportunities	**1.736**	**1.374**	**1.956**	**1.520**	**1.582**	**1.138**	**0.821**	**0.848**	**0.654**
	(0.00)	(0.02)	(0.00)	(0.00)	(0.00)	(0.06)	(0.00)	(0.00)	(0.00)
Dependence on external financing	**0.985**	**1.023**	**1.080**	**0.490**	**0.551**	**0.864**	0.744	0.051	-0.052
	(0.00)	(0.00)	(0.00)	(0.06)	(0.05)	(0.00)	(0.19)	(0.93)	(0.88)
Size	0.441	0.132	0.115	**1.613**	**1.684**	0.562	**1.196**	**1.262**	**1.827**
	(0.40)	(0.77)	(0.79)	(0.01)	(0.00)	(0.12)	(0.00)	(0.04)	(0.00)
Cash	-7.109	-8.436	-2.854	**-37.802**	**-39.172**	**-10.667**	0.979	0.537	-0.825
	(0.22)	(0.12)	(0.55)	(0.00)	(0.00)	(0.00)	(0.36)	(0.56)	(0.41)
Cross-listing dummy	3.387	3.807	3.288	**4.780**	**5.250**	**5.570**	6.014	**6.134**	6.308
	(0.12)	(0.12)	(0.22)	(0.01)	(0.00)	(0.00)	(0.17)	(0.08)	(0.15)
Anti-self dealing	**13.991**	**14.367**	**16.199**	**25.746**	**28.807**	**44.066**	2.490	4.115	-5.113
	(0.08)	(0.02)	(0.03)	(0.00)	(0.00)	(0.00)	(0.69)	(0.49)	(0.20)
GDP per capita	0.000	0.000	0.000	0.001	**0.001**	**0.001**	0.000	0.000	0.000
	(0.32)	(0.28)	(0.31)	(0.11)	(0.02)	(0.00)	(0.88)	(0.93)	(0.98)
Financial development	**0.728**	**0.743**	**0.791**	**1.030**	**1.152**	**1.260**	**1.491**	**1.390**	**1.173**
	(0.06)	(0.03)	(0.02)	(0.02)	(0.01)	(0.00)	(0.01)	(0.01)	(0.10)
Black market	**0.769**	**0.768**	**0.733**	0.257	0.215	0.297	0.555	0.542	0.511
	(0.01)	(0.01)	(0.05)	(0.46)	(0.52)	(0.40)	(0.18)	(0.33)	(0.38)
Freedom of press	0.198	0.168	0.182	**0.185**	**0.197**	**0.122**	0.402	0.484	0.649
	(0.18)	(0.21)	(0.18)	(0.04)	(0.03)	(0.05)	(0.22)	(0.22)	(0.18)
Number of observations	531	531	531	1,414	1,414	1,414	6,378	6,378	6,378
Regression R^2	0.197	0.223	0.334	0.529	0.524	0.799	0.114	0.126	0.285
F-test of joint significance	**36.570**	**29.150**	**92.060**	**9.630**	**11.180**	**69.680**	**4.860**	**88.410**	**37.420**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

Panel B		
Dependent variable	**WBES Audit**	
Composite obstacles	**-0.030**	-
	(0.05)	
Corruption obstacle	-	**-0.031**
		(0.00)
Taxes and regulation obstacle	-	**-0.056**
		(0.00)
Crime obstacle	-	-0.004
		(0.72)
Laws and regulations	**0.012**	**0.009**
	(0.01)	(0.04)
Firm size	**0.189**	**0.185**
	(0.00)	(0.00)
Foreign ownership	**0.208**	**0.195**
	(0.00)	(0.00)
GDP per capita	0.000	0.000
	(0.23)	(0.11)
Number of observations	6,252	6,252
Regression R^2	0.177	0.189
F-test of joint significance	**38.100**	**34.670**
	(0.00)	(0.00)

Table VII
Firm performance, firm governance and predation
OLS regressions of firm performance on firm governance, predation, autocracy, and obstacles with clustered (by country) standard errors

The dependent variables are firm valuation (Panel A: CLSA, S&P, and ISS samples) and firm performance (Panel B: WBES sample). The independent variables are firm governance, predation, autocracy, corruption, risk of government expropriation, lack of property rights protection, government stance towards business, freedom to compete, quality of bureaucracy, impact of crime, growth opportunities, size, cross-listing dummy, anti-self dealing, GDP per capita, financial development, and industry dummies (CLSA, S&P, and ISS samples); audit, crime obstacles, taxes and regulation obstacles, corruption obstacles, composite obstacles, laws and regulations, firm size, foreign ownership, state ownership, GDP per capita, inflation, and industry dummies (WBES sample). The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. The CLSA sample is either for 2000 or 2001. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A

Dependent variable	**Valuation**								
CLSA governance	**0.008**	**0.009**	**0.011**	**-**	**-**	-	**-**	**-**	**-**
	(0.09)	(0.10)	(0.01)						
S&P transparency	-	-	-	**0.016**	**0.016**	0.012	-	-	-
				(0.00)	(0.00)	(0.19)			
ISS governance	-	-	-	-	-	-	**0.009**	**0.009**	**0.009**
							(0.00)	(0.00)	(0.00)
Predation	**-0.014**	-	-	**-0.014**	-	-	**-0.018**	-	-
	(0.03)			(0.10)			(0.07)		
Autocracy	-	**-0.013**	-	-	**-0.017**	-	-	**-0.009**	-
		(0.10)			(0.02)			(0.10)	
Corruption	-	-	**-0.137**	-	-	**-0.154**	-	-	**-0.038**
			(0.01)			(0.01)			(0.05)
Risk of government expropriation	-	-	**-0.187**	-	-	**-0.261**	-	-	-0.074
			(0.05)			(0.03)			(0.70)
Lack of property rights protection	-	-	**-0.191**	-	-	**-0.168**	-	-	0.173
			(0.00)			(0.07)			(0.18)
Government stance towards business	-	-	0.052	-	-	0.105	-	-	0.067
			(0.49)			(0.21)			(0.51)
Freedom to compete	-	-	-0.123	-	-	**-0.134**	-	-	-0.077
			(0.16)			(0.10)			(0.39)
Quality of bureaucracy	-	-	**0.354**	-	-	**0.126**	-	-	**-0.014**
			(0.00)			(0.02)			(0.08)
Impact of crime	-	-	-0.069	-	-	**-0.218**	-	-	-0.021
			(0.14)			(0.02)			(0.78)
Growth opportunities	**0.445**	**0.442**	**0.441**	**0.341**	**0.340**	**0.318**	0.060	0.057	0.030
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.58)	(0.62)	(0.83)
Size	**-0.150**	**-0.152**	**-0.142**	**-0.215**	**-0.219**	**-0.217**	-0.092	**-0.094**	-0.094
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Cross-listing dummy	-0.016	-0.023	-0.017	-0.085	-0.083	-0.067	0.083	0.093	0.077
	(0.61)	(0.57)	(0.87)	(0.22)	(0.27)	(0.48)	(0.36)	(0.32)	(0.67)
Anti-self dealing	-0.145	-0.064	0.103	**-0.384**	**-0.294**	**0.670**	**-0.348**	**-0.270**	-0.107
	(0.48)	(0.73)	(0.58)	(0.03)	(0.05)	(0.08)	(0.02)	(0.04)	(0.69)
GDP per capita	0.000	0.000	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	0.000
	(0.56)	(0.36)	(0.25)	(0.07)	(0.01)	(0.00)	(0.00)	(0.00)	(0.11)
Financial development	**0.001**	0.000	**0.001**	0.001	0.001	0.000	0.000	0.000	0.000
	(0.04)	(0.30)	(0.09)	(0.31)	(0.36)	(0.38)	(0.22)	(0.45)	(0.43)
Number of observations	469	469	469	1,349	1,349	1,349	5,856	5,856	5,856
Regression R^2	0.266	0.268	0.311	0.279	0.280	0.301	0.291	0.291	0.361
F-test of joint significance	**292.240**	**212.820**	**5142.210**	**44.680**	**36.850**	**48.620**	**96.170**	**106.480**	**112.390**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

Panel B		
	Performance	
Audit	**0.120**	**0.114**
	(0.00)	(0.00)
Corruption obstacle	-	**-0.011**
		(0.09)
Taxes and regulation obstacle	-	**-0.053**
		(0.00)
Crime obstacle	-	0.011
		(0.23)
Composite obstacles	**-0.012**	-
	(0.02)	
Laws and regulations	0.002	0.000
	(0.51)	(0.92)
Firm size	**0.041**	**0.039**
	(0.00)	(0.01)
Foreign ownership	**0.000**	0.000
	(0.06)	(0.12)
State ownership	-0.001	-0.001
	(0.18)	(0.19)
GDP per capita	**0.000**	**0.000**
	(0.08)	(0.05)
Inflation	**-0.261**	**-0.238**
	(0.00)	(0.00)
Number of observations	4,351	4,351
Regression R^2	0.074	0.082
F-test of joint significance	**17.210**	**16.460**
	(0.00)	(0.00)

Table VIII
The impact of predation on the relation between firm governance and firm performance
OLS regressions of firm performance on firm governance, predation, autocracy, obstacles, and their interactions with firm governance with clustered (by country) standard errors

The dependent variables are firm valuation (CLSA, S&P, and ISS samples) and firm performance (WBES sample). The independent variables are firm governance, predation, autocracy, their interactions with firm governance; growth opportunities, size, cross-listing dummy, anti-self dealing, GDP per capita, financial development, and industry dummies (CLSA, S&P, and ISS samples); audit, composite obstacles, its interaction with audit; laws and regulations, firm size, foreign ownership, state ownership, GDP per capita, inflation, and industry dummies (WBES sample). The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. The CLSA sample is either for 2000 or 2001. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A

Dependent variable	**Valuation**					
CLSA governance	0.006	**0.061**	-	-	-	-
	(0.46)	(0.04)				
S&P transparency	-	-	0.015	**0.018**	-	-
			(0.12)	(0.00)		
ISS governance	-	-	-	-	**0.027**	0.007
					(0.02)	(0.58)
Predation	**-0.068**	-	**-0.017**	-	**-0.066**	-
	(0.04)		(0.09)		(0.02)	
Autocracy	-	**-0.052**	-	-0.009	-	**-0.080**
		(0.08)		(0.18)		(0.04)
*CLSA governance * Predation*	**-0.001**	-	-	-	-	-
	(0.09)					
*CLSA governance * Autocracy*	-	**-0.001**	-	-	-	-
		(0.07)				
*S&P transparency * Predation*	-	-	**-0.007**	-	-	-
			(0.09)			
*S&P transparency * Autocracy*	-	-	-	**-0.008**	-	-
				(0.08)		
*ISS governance * Predation*	-	-	-	-	-0.003	-
					(0.25)	
*ISS governance * Autocracy*	-	-	-	-	-	-0.003
						(0.26)
Growth opportunities	**0.434**	**0.428**	**0.340**	**0.341**	0.057	0.059
	(0.00)	(0.00)	(0.00)	(0.00)	(0.60)	(0.61)
Size	**-0.154**	**-0.152**	**-0.216**	**-0.219**	**-0.093**	**-0.094**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Cross-listing dummy	-0.018	-0.012	-0.043	0.153	0.120	0.132
	(0.27)	(0.23)	(0.28)	(0.58)	(0.56)	(0.54)
Anti-self dealing	-0.089	-0.102	**-0.388**	**-0.295**	**-0.342**	**-0.263**
	(0.67)	(0.61)	(0.04)	(0.05)	(0.02)	(0.05)
GDP per capita	0.000	0.000	**0.000**	**0.000**	**0.000**	**0.000**
	(0.97)	(0.90)	(0.08)	(0.01)	(0.00)	(0.00)
Financial development	**0.001**	0.001	0.001	0.001	0.000	0.000
	(0.06)	(0.14)	(0.31)	(0.36)	(0.47)	(0.44)
Number of observations	469	469	1,349	1,349	5,856	5,856
Regression R^2	0.274	0.270	0.279	0.280	0.261	0.260
F-test of joint significance	**679.830**	**380.530**	**56.350**	**48.040**	**1538.520**	**1969.100**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

Panel B	
	Performance
Audit	0.066
	(0.37)
Composite obstacles	**-0.016**
	(0.04)
*Audit * Composite obstacles*	**-0.007**
	(0.04)
Laws and regulations	0.002
	(0.46)
Firm size	**0.041**
	(0.00)
Foreign ownership	**0.000**
	(0.06)
State ownership	-0.001
	(0.18)
GDP per capita	**0.000**
	(0.06)
Inflation	**-0.259**
	(0.00)
Number of observations	4,351
Regression R^2	0.074
F-test of joint significance	**16.020**
	(0.00)

Table IX
The impact of predation on the relation between firm governance and firm performance
OLS regressions of firm performance on firm governance run on high- and low-predation, autocracy, and obstacles subsamples with clustered (by country) standard errors

The dependent variables are firm valuation (Panel A: CLSA and S&P samples) and firm performance (Panel B: WBES sample). The independent variables are firm governance, growth opportunities, size, cross-listing dummy, anti-self dealing, GDP per capita, financial development, and industry dummies (CLSA and S&P samples); audit, laws and regulations, firm size, foreign ownership, state ownership, GDP per capita, inflation, and industry dummies (WBES sample). High- (low-) predation subsample contains firms from countries that are above (below) 75th (25th) percentile of the predation index. High- (low-) autocracy sample contains firms from countries that are above (below) 75th (25th) percentile of the autocracy index. High- (low-) obstacles sample contains firms for which the composite obstacles variable is above (below) 75th (25th) percentile. The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. Coefficients significant at least at the 10% level (based on two-tailed test) are in boldface. The CLSA sample is either for 2000 or 2001. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. WBES variables are for 2000. We test whether the coefficients in high subsamples are statistically different from coefficients in low subsamples by running joint-sample (both high- and low-subsamples) regressions using all independent variables and their interactions with a low sub-sample dummy variable. The dummy variable takes value of one for observations that belong to the low subsample and zero, otherwise. The reported difference in coefficients significance test is an F-test of joint significance of the low-subsample dummy interaction variables. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A

Dependent variable	**Valuation**							
	High predation *Predation > 21*	**Low predation** *Predation < 15*	**High autocracy** *Autocracy > 9*	**Low autocracy** *Autocracy < 6*	**High predation** *Predation > 14*	**Low predation** *Predation < 12*	**High autocracy** *Autocracy > 7*	**Low autocracy** *Autocracy < 4*
CLSA governance	**0.009**	**0.014**	0.012	**0.011**	-	-	-	-
	(0.01)	(0.01)	(0.19)	(0.04)				
S&P transparency	-	-	-	-	0.001	**0.011**	0.003	**0.013**
					(0.90)	(0.09)	(0.70)	(0.01)
Growth opportunities	0.270	**0.991**	0.451	**0.609**	**0.366**	**0.432**	**0.539**	0.205
	(0.27)	(0.00)	(0.15)	(0.06)	(0.03)	(0.01)	(0.02)	(0.44)
Size	**-0.065**	**-0.142**	**-0.094**	**-0.086**	**0.120**	**0.254**	**0.151**	**0.221**
	(0.03)	(0.00)	(0.04)	(0.06)	(0.00)	(0.00)	(0.02)	(0.00)
Cross-listing dummy	-0.016	-0.014	-0.015	-0.016	0.123	0.186	0.173	0.160
	(0.20)	(0.25)	(0.27)	(0.23)	(0.36)	(0.24)	(0.19)	(0.21)
Anti-self dealing	0.155	-0.180	0.059	0.022	0.014	0.021	0.044	0.262
	(0.52)	(0.80)	(0.83)	(0.93)	(0.94)	(0.94)	(0.92)	(0.14)
GDP per capita	0.000	0.000	0.000	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
	(0.18)	(0.66)	(0.89)	(0.00)	(0.00)	(0.02)	(0.01)	(0.01)
Difference in coefficients significance test	3.170		**10.270**		**36.040**		**12.120**	
	(0.23)		(0.00)		(0.00)		(0.00)	
Number of observations	117	117	117	117	337	337	337	337
Regression R^2	0.223	0.369	0.250	0.277	0.171	0.280	0.193	0.233
F-test of joint significance	**92.810**	**5.790**	**11.620**	**24.820**	**53.410**	**656.750**	**33.600**	**37.100**
	(0.00)	(0.06)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

	Performance	
	High composite obstacles *Composite obstacles > 8*	**Low composite obstacles** *Composite obstacles < 6*
Audit	0.041	**0.113**
	(0.41)	(0.02)
Laws and regulations	0.001	0.002
	(0.94)	(0.70)
Firm size	0.001	**0.042**
	(0.97)	(0.04)
Foreign ownership	**0.001**	0.000
	(0.07)	(0.67)
State ownership	0.000	-0.001
	(0.53)	(0.11)
GDP per capita	0.000	0.000
	(0.99)	(0.63)
Inflation	**-0.483**	**-0.358**
	(0.01)	(0.00)
Difference significance test	**17.040**	
	(0.00)	
Number of observations	1,116	1,116
Regression R^2	0.076	0.075
F-test of joint significance	**17.010**	**21.540**
	(0.00)	(0.00)

Table X
The impact of predation on the relation between firm governance and firm performance
Country-by-country OLS regressions of firm performance on firm governance

This table reports coefficients on firm governance (Panel A: ISS sample); and audit (Panel B: WBES sample). For each country, the dependent variables are firm valuation (ISS sample) and firm performance (WBES sample). Countries are sorted by predation (Panel A: ISS sample) and composite obstacles (Panel B: ISS sample). The independent variables are firm governance, growth opportunities, size, cross-listing dummy, and industry dummies (ISS sample); audit, laws and regulations, firm size, foreign ownership, state ownership, and industry dummies (WBES sample). The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. The ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, D and Table I.

Panel A

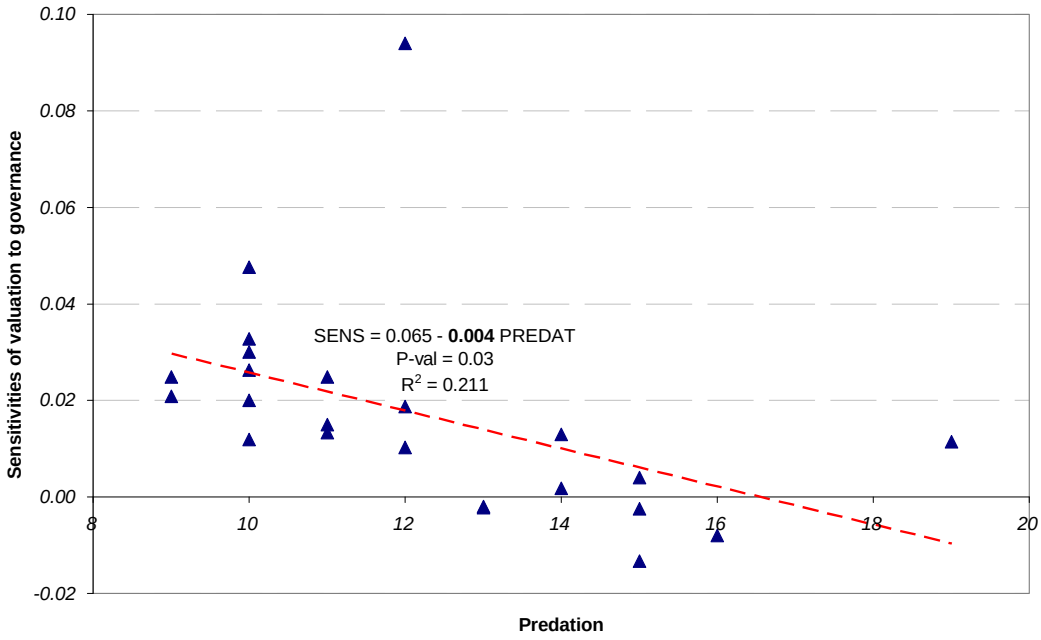
	Dependent variable	**Valuation**	
Country	*Predation*	*ISS governance*	*P-value*
Sweden	9	**0.025**	(0.03)
U.K.	9	**0.021**	(0.01)
Australia	10	0.020	(0.35)
Canada	10	0.012	(0.28)
Finland	10	**0.033**	(0.05)
New Zealand	10	0.048	(0.31)
Singapore	10	**0.026**	(0.10)
Switzerland	10	**0.030**	(0.05)
Denmark	11	**0.013**	(0.10)
Netherlands	11	**0.015**	(0.02)
Norway	11	0.025	(0.12)
Austria	12	0.094	(0.17)
Hong Kong	12	0.010	(0.26)
U.S.	12	**0.019**	(0.00)
Germany	13	-0.002	(0.89)
Japan	13	-0.002	(0.73)
Belgium	14	0.002	(0.40)
Portugal	14	0.013	(0.15)
France	15	-0.013	(0.31)
Ireland	15	0.004	(0.30)
Spain	15	-0.002	(0.62)
Greece	16	-0.008	(0.75)
Italy	19	0.011	(0.74)

Panel B			
Dependent variable	**Valuation**		
Country	*Composite obstacles*	*Audit*	*P-value*
Singapore	4.05	**0.406**	(0.00)
Sweden	5.07	**0.470**	(0.00)
Canada	5.15	-0.004	(0.68)
Portugal	5.18	**0.111**	(0.10)
Malaysia	5.31	**0.383**	(0.03)
U.K.	5.47	0.300	(0.53)
U.S.	5.73	**0.424**	(0.02)
China	5.87	-0.008	(0.15)
Chile	5.96	**0.393**	(0.07)
Slovenia	6.00	**0.119**	(0.09)
Estonia	6.12	**0.217**	(0.10)
Trinidad &Tobago	6.14	-0.016	(0.85)
Belize	6.23	-0.15	(0.36)
France	6.24	**0.219**	(0.05)
Spain	6.31	-0.020	(0.83)
Uruguay	6.44	0.013	(0.95)
Germany	6.51	**0.380**	(0.08)
Hungary	6.59	0.061	(0.55)
Uzbekistan	6.64	0.076	(0.44)
Armenia	6.78	0.054	(0.72)
Belarus	6.80	0.027	(0.83)
India	6.92	**-0.503**	(0.03)
Italy	7.05	**0.213**	(0.10)
Poland	7.07	-0.033	(0.74)
Czech Republic	7.09	**-0.500**	(0.04)
West Bank-Gaza	7.30	0.170	(0.59)
Bosnia	7.50	-0.140	(0.16)
Costa Rica	7.58	**0.220**	(0.07)
Indonesia	7.69	**0.291**	(0.07)
Slovakia	7.82	0.053	(0.73)
Argentina	7.87	0.064	(0.71)
Panama	7.95	-0.236	(0.36)
Honduras	8.03	0.111	(0.69)
Turkey	8.11	0.069	(0.53)
Croatia	8.13	0.000	(0.99)
Kazakhstan	8.13	0.063	(0.67)
Azerbaijan	8.22	0.182	(0.50)
Bulgaria	8.27	0.057	(0.71)
Nicaragua	8.29	-0.069	(0.65)
Guatemala	8.38	**-0.258**	(0.06)
Peru	8.40	**0.206**	(0.09)
Ukraine	8.48	0.093	(0.33)
Brazil	8.52	-0.107	(0.58)
Romania	8.58	0.061	(0.74)
Lithuania	8.60	**0.115**	(0.07)
Russia	8.68	-0.09	(0.11)
Philippines	8.75	-0.014	(0.93)
Venezuela	8.81	0.083	(0.83)
Dominican Republic	8.86	-0.106	(0.54)
Bolivia	8.87	-0.008	(0.96)
Colombia	8.96	**0.270**	(0.09)
Georgia	9.05	0.022	(0.72)
Pakistan	9.45	-0.189	(0.31)
Moldova	9.49	-0.048	(0.97)
Albania	9.53	-0.159	(0.24)
Ecuador	9.58	-0.133	(0.03)
El Salvador	9.68	-0.099	(0.27)
Haiti	9.72	-0.186	(0.17)
Mexico	9.85	0.232	(0.97)
Kyrgyzstan	10.09	**0.183**	(0.07)

Figure 3
Relation between sensitivity of firm performance to firm governance and predation, autocracy, and obstacles

These figures plot the coefficients (sensitivities) reported in Table XVI (coefficients on firm governance for the ISS sample (Panel A); and audit for the WBES sample (Panel B)) against predation and autocracy indexes (ISS sample) and composite obstacles (WBES sample). The intercepts and the slopes of the lines are determined by OLS regressions of sensitivities on predation or composite obstacles. The ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A: ISS sample



Panel B: WBES sample

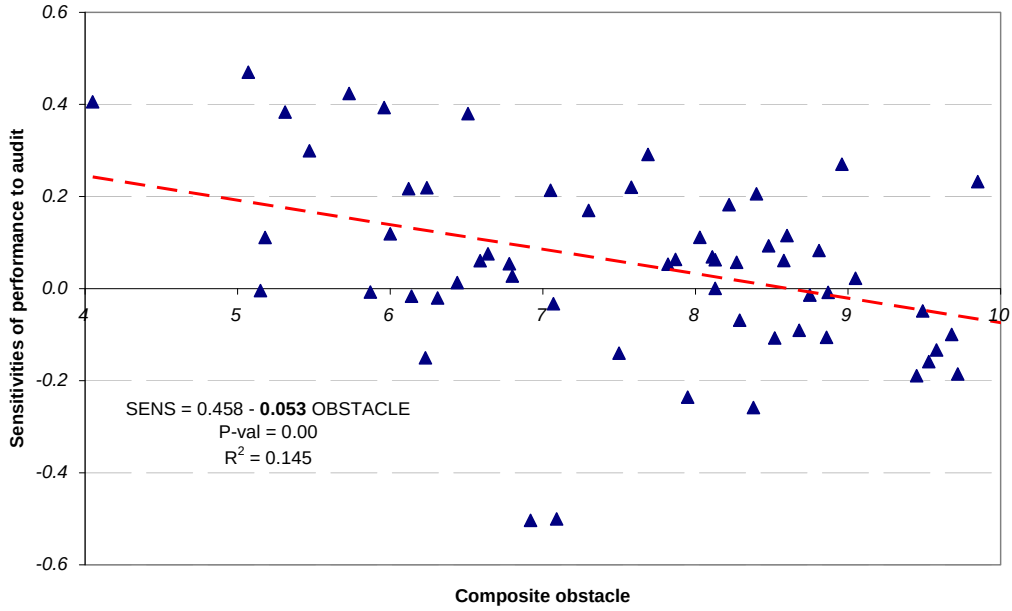


Table XI
The impact of predation on firm governance determinants
OLS and Probit regressions of firm governance on predation, autocracy, obstacles, and their interactions with governance determinants with clustered (by country) standard errors

The dependent variables are CLSA governance, S&P transparency, ISS governance (Panel A), or WBES audit (Panel B). The independent variables are predation, autocracy, their interactions with growth opportunities, industry dependence on external financing, and size; growth opportunities, industry dependence on external financing, size, cash, cross-listing dummy, anti-self dealing, GDP per capita, financial development, black market, freedom of press, and industry dummies (Panel A: CLSA, S&P, and ISS samples); composite obstacles, its interaction with laws and regulations, firm size, and foreign ownership; laws and regulations, firm size, and foreign ownership, GDP per capita, and industry dummies (Panel B: WBES sample). The reported regressions in Panel A are run using the OLS method. The reported regressions in Panel B are run using the probit method. The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. The CLSA sample is either for 2000 or 2001. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A

Dependent variable	**CLSA governance**		**S&P transparency**		**ISS governance**	
Predation	**-2.088**	-	**-0.358**	-	**3.467**	-
	(0.02)		(0.07)		(0.07)	
Autocracy	-	**-1.522**	-	-0.232	-	-0.923
	-	(0.08)		(0.88)		(0.13)
Growth opportunities	-0.011	-0.093	2.203	1.150	0.816	-0.155
	(0.77)	(0.23)	(0.16)	(0.33)	(0.57)	(0.83)
*Growth opportunities * Predation*	-0.009	-	**-0.049**	-	0.002	-
	(0.33)		(0.03)		(0.99)	
*Growth opportunities * Autocracy*	-	**-0.305**	-	0.077	-	**-0.018**
		(0.00)		(0.68)		(0.02)
Dependence on external financing	2.915	0.505	4.377	0.087	**3.341**	**2.588**
	(0.43)	(0.72)	(0.17)	(0.92)	(0.05)	(0.06)
*Dependence on external financing * Predation*	**-0.016**	-	**-0.019**	-	**-0.361**	-
	(0.04)		(0.02)		(0.04)	
*Dependence on external financing * Autocracy*	-	**-0.009**	-	-0.011	-	**-0.061**
		(0.06)		(0.46)		(0.05)
Size	**1.945**	0.250	**2.880**	1.622	**6.679**	0.223
	(0.07)	(0.28)	(0.04)	(0.18)	(0.03)	(0.57)
*Size * Predation*	**-0.129**	-	**-0.009**	-	**-0.456**	-
	(0.03)		(0.03)		(0.05)	
*Size * Autocracy*	-	**-0.014**	-	0.012	-	**-0.018**
		(0.02)		(0.95)		(0.02)
Cash	-6.935	-7.676	**-38.075**	**-39.147**	0.651	0.497
	(0.23)	(0.12)	(0.00)	(0.00)	(0.48)	(0.53)
Cross-listing dummy	4.091	4.739	**5.259**	**5.954**	4.814	6.681
	(0.16)	(0.13)	(0.03)	(0.01)	(0.37)	(0.28)
Anti-self dealing	**13.994**	**14.037**	**25.419**	**28.839**	3.975	3.022
	(0.07)	(0.02)	(0.00)	(0.00)	(0.53)	(0.58)
GDP per capita	0.000	0.000	0.001	**0.001**	0.000	0.000
	(0.35)	(0.25)	(0.11)	(0.02)	(0.96)	(0.86)
Financial development	**0.863**	**0.913**	**1.120**	**1.476**	**1.954**	**1.753**
	(0.03)	(0.00)	(0.00)	(0.00)	(0.00)	(0.02)
Black market	**0.819**	**1.179**	0.461	0.593	0.667	0.426
	(0.01)	(0.00)	(0.47)	(0.42)	(0.18)	(0.33)
Freedom of press	0.369	0.654	**0.319**	**0.642**	0.542	0.511
	(0.18)	(0.11)	(0.04)	(0.01)	(0.12)	(0.23)
Number of observations	531	531	1,414	1,414	6,378	6,378
Regression R^2	0.203	0.232	0.533	0.525	0.130	0.130
F-test of joint significance	**830.600**	**89.730**	**16.830**	**12.220**	**67.410**	**100.720**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

Panel B	
Dependent variable	**WBES Audit**
Composite obstacles	**0.020**
	(0.09)
Laws and regulations	**0.027**
	(0.01)
*Laws and regulations * Composite obstacles*	**-0.002**
	(0.10)
Firm size	**0.121**
	(0.00)
*Firm size * Composite obstacles*	**-0.009**
	(0.03)
Foreign ownership	**0.168**
	(0.00)
*Foreign ownership * Composite obstacles*	-0.005
	(0.30)
GDP per capita	0.000
	(0.24)
Number of observations	6,252
Regression R^2	0.179
F-test of joint significance	**34.260**
	(0.00)

Table XII
The impact of predation on firm governance determinants
OLS and Probit regressions of firm governance on predation, autocracy, and obstacles run on high- and low-predation, autocracy, and obstacles subsamples with clustered (by country) standard errors

The dependent variables are CLSA governance, S&P transparency (Panel A), or WBES audit (Panel B). The independent variables are growth opportunities, industry dependence on external financing, size, cash, cross-listing dummy, anti-self dealing, GDP per capita, financial development, black market, freedom of press, and industry dummies (CLSA and S&P samples); laws and regulations, firm size, foreign ownership, GDP per capita, and industry dummies (WBES sample). High- (low-) predation subsample contains firms from countries that are above (below) 75th (25th) percentile of the predation index. High- (low-) autocracy sample contains firms from countries that are above (below) 75th (25th) percentile of the autocracy index. High- (low-) obstacles sample contains firms for which the composite obstacles variable is above (below) 75th (25th) percentile. The reported regressions in Panel A are run using the OLS method. The reported regressions in Panel A are run using the probit method. The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. The CLSA sample is either for 2000 or 2001. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. WBES variables are for 2000. All other variables are for 2000. We test whether the coefficients in high subsamples are statistically different from coefficients in low subsamples by running joint-sample (both high- and low-subsamples) regressions using all independent variables and their interactions with a low sub-sample dummy variable. The dummy variable takes value of one for observations that belong to the low subsample and zero, otherwise. The reported difference in coefficients significance test is an F-test of joint significance of the low-subsample dummy interaction variables. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A

Dependent variable	**CLSA governance**				**S&P transparency**			
	High predation *Predation > 21*	**Low predation** *Predation < 15*	**High autocracy** *Autocracy > 9*	**Low autocracy** *Autocracy < 6*	**High predation** *Predation > 14*	**Low predation** *Predation < 12*	**High autocracy** *Autocracy > 7*	**Low autocracy** *Autocracy < 4*
Growth opportunities	1.558	**3.881**	2.029	**2.622**	0.392	**1.872**	0.136	**0.900**
	(0.13)	(0.03)	(0.15)	(0.08)	(0.46)	(0.02)	(0.83)	(0.05)
Dependence on external financing	-0.158	-0.831	1.096	**2.416**	**-1.347**	**1.775**	**1.380**	**2.777**
	(0.72)	(0.58)	(0.12)	(0.00)	(0.00)	(0.01)	(0.07)	(0.01)
Size	0.067	-0.087	0.126	0.672	1.223	**1.944**	1.459	**2.702**
	(0.93)	(0.88)	(0.83)	(0.56)	(0.19)	(0.03)	(0.23)	(0.00)
Cash	-2.920	**-6.897**	-11.019	**-6.934**	8.484	**-34.881**	5.891	**-19.968**
	(0.62)	(0.05)	(0.20)	(0.02)	(0.30)	(0.01)	(0.48)	(0.01)
Cross-listing dummy	**0.359**	**0.334**	1.679	1.556	1.293	**1.690**	1.915	1.984
	(0.05)	(0.05)	(0.15)	(0.24)	(0.25)	(0.10)	(0.29)	(0.25)
Anti-self dealing	8.138	**31.022**	5.875	3.730	**21.225**	**19.940**	**22.796**	**23.211**
	(0.40)	(0.01)	(0.24)	(0.66)	(0.00)	(0.10)	(0.00)	(0.01)
GDP per capita	**0.005**	**0.000**	0.000	**0.001**	**0.001**	**0.001**	**0.000**	0.000
	(0.00)	(0.06)	(0.30)	(0.00)	(0.00)	(0.07)	(0.03)	(0.18)
Difference in coefficients significance test	**22.170**		**38.650**		**104.130**		**16.160**	
	(0.00)		(0.00)		(0.00)		(0.00)	
Number of observations	132	132	132	132	353	353	353	353
Regression R^2	0.425	0.232	0.156	0.113	0.505	0.307	0.526	0.430
F-test of joint significance	0.950	**12.070**	2.250	17.330	**89.680**	**317.140**	**18.340**	**193.850**
	(0.51)	(0.02)	(0.50)	(0.12)	(0.00)	(0.00)	(0.00)	(0.00)

Panel B		
Dependent variable	**WBES Audit**	
	High composite obstacles *Composite obstacles > 8*	**Low composite obstacles** *Composite obstacles < 6*
Laws and regulations	0.008	**0.023**
	(0.19)	(0.00)
Firm size	**0.236**	**0.158**
	(0.00)	(0.00)
Foreign ownership	0.105	**0.230**
	(0.33)	(0.00)
GDP per capita	0.000	**0.000**
	(0.15)	(0.05)
Difference in coefficients significance test	**8.130**	
	(0.00)	
Number of observations	1,594	1,594
Regression R^2	0.190	0.204
F-test of joint significance	**33.820**	**18.200**
	(0.00)	(0.00)

Table XIII
The impact of predation on firm governance determinants
OLS and Probit country-by-country regressions of firm governance on governance determinants

This table reports coefficients on growth opportunities, industry dependence on external financing, and size (Panel A: ISS sample); laws and regulations, firm size, and foreign ownership (Panel B: WBES sample). Countries are sorted by predation (Panel A: ISS sample) and composite obstacles (Panel B: ISS sample). For each country, the dependent variables are ISS governance or WBES audit. The independent variables are growth opportunities, industry dependence on external financing, size, cash, cross-listing dummy, and industry dummies (ISS sample); laws and regulations, firm size, foreign ownership, and industry dummies (WBES sample). The reported regressions in Panel A are run using the OLS method. The reported regressions in Panel A are run using the probit method. The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. The ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A

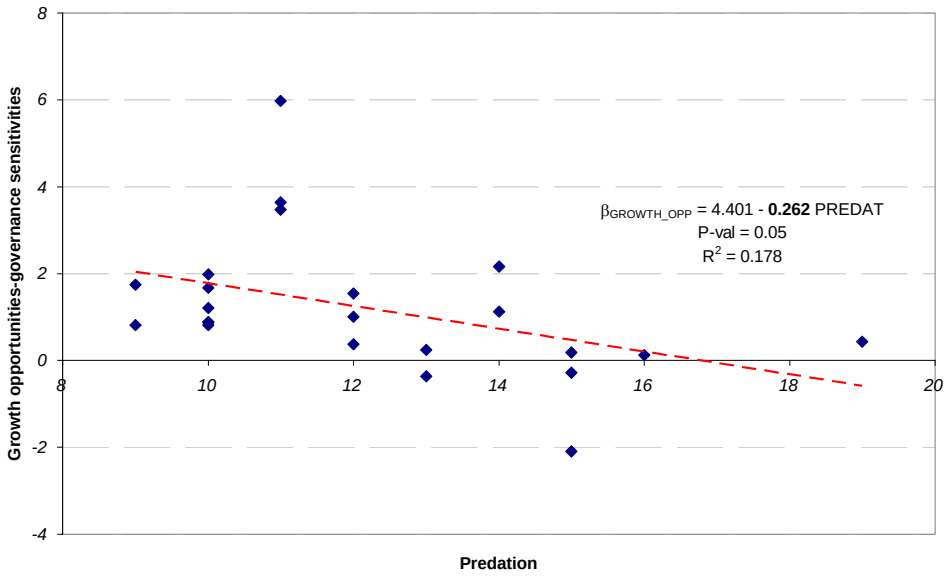
Dependent variable		**ISS governance**					
Country	*Predation*	*Growth opportunities*	*P-value*	*Dependence on external financing*	*P-value*	*Size*	*P-value*
Sweden	9	**1.744**	(0.03)	-2.093	(0.85)	-0.380	(0.70)
U.K.	9	**0.812**	(0.00)	-0.947	(0.48)	**0.860**	(0.00)
Australia	10	**0.810**	(0.10)	-2.204	(0.45)	0.376	(0.27)
Canada	10	0.881	(0.56)	**7.033**	(0.06)	0.351	(0.38)
Finland	10	1.211	(0.54)	4.693	(0.56)	**1.093**	(0.10)
New Zealand	10	**1.675**	(0.09)	5.568	(0.54)	0.735	(0.71)
Singapore	10	**1.983**	(0.08)	-3.696	(0.34)	0.375	(0.44)
Switzerland	10	0.874	(0.64)	2.064	(0.78)	**0.762**	(0.07)
Denmark	11	**5.977**	(0.10)	7.895	(0.56)	0.577	(0.79)
Netherlands	11	**3.467**	(0.04)	6.405	(0.32)	-0.013	(0.99)
Norway	11	**3.638**	(0.05)	8.630	(0.46)	**1.136**	(0.04)
Austria	12	1.539	(0.74)	-5.178	(0.44)	**0.607**	(0.06)
Hong Kong	12	0.374	(0.61)	5.430	(0.17)	-0.355	(0.44)
U.S.	12	**1.009**	(0.00)	-0.394	(0.25)	**2.060**	(0.00)
Germany	13	0.240	(0.77)	4.370	(0.37)	-0.011	(0.98)
Japan	13	-0.360	(0.21)	-1.344	(0.14)	**-0.596**	(0.00)
Belgium	14	1.127	(0.49)	11.648	(0.17)	**1.039**	(0.02)
Portugal	14	2.166	(0.73)	8.697	(0.75)	-0.577	(0.75)
France	15	**-2.098**	(0.09)	-3.648	(0.40)	**1.180**	(0.02)
Ireland	15	-0.287	(0.77)	-6.897	(0.59)	1.318	(0.38)
Spain	15	0.180	(0.85)	3.009	(0.53)	-0.012	(0.99)
Greece	16	0.121	(0.93)	-5.823	(0.33)	1.021	(0.22)
Italy	19	0.428	(0.54)	5.975	(0.19)	-0.765	(0.15)

		Panel B					
	Dependent variable	**WBES audit**					
Country	*Composite obstacles*	*Laws and regulations*	*P-value*	*Firm size*	*P-value*	*Foreign ownership*	*P-value*
Singapore	4.05	0.005	(0.82)	**0.195**	(0.02)	0.029	(0.55)
Sweden	5.07	**0.034**	(0.03)	**0.181**	(0.03)	0.006	(0.92)
Canada	5.15	0.010	(0.24)	**0.212**	(0.07)	**0.243**	(0.03)
Portugal	5.18	**0.030**	(0.10)	**0.134**	(0.01)	0.047	(0.59)
Malaysia	5.31	**0.070**	(0.03)	0.076	(0.12)	0.188	(0.29)
U.K.	5.47	0.011	(0.61)	**0.315**	(0.00)	0.026	(0.87)
U.S.	5.73	**-0.049**	(0.03)	**0.248**	(0.00)	0.079	(0.64)
China	5.87	**0.042**	(0.02)	**0.220**	(0.00)	**0.502**	(0.00)
Chile	5.96	0.006	(0.76)	**0.105**	(0.05)	0.150	(0.11)
Slovenia	6.00	-0.003	(0.87)	**0.393**	(0.00)	0.101	(0.36)
Estonia	6.12	0.005	(0.80)	**0.161**	(0.01)	**0.482**	(0.00)
Trinidad &Tobago	6.14	**0.060**	(0.03)	**0.142**	(0.05)	0.177	(0.17)
Belize	6.23	**0.053**	(0.10)	**0.231**	(0.01)	0.077	(0.70)
France	6.24	**0.035**	(0.05)	**0.159**	(0.00)	**0.231**	(0.03)
Spain	6.31	-0.004	(0.79)	**0.333**	(0.00)	0.116	(0.23)
Uruguay	6.44	**0.041**	(0.10)	0.059	(0.58)	**0.279**	(0.06)
Germany	6.51	0.030	(0.22)	**0.186**	(0.08)	0.118	(0.45)
Hungary	6.59	0.013	(0.41)	**0.290**	(0.00)	0.113	(0.51)
Uzbekistan	6.64	**0.028**	(0.10)	**0.137**	(0.09)	0.067	(0.65)
Armenia	6.78	**0.027**	(0.04)	0.110	(0.18)	0.190	(0.21)
Belarus	6.80	-0.001	(0.98)	0.147	(0.11)	0.007	(0.98)
India	6.92	0.006	(0.26)	**0.053**	(0.01)	**0.330**	(0.02)
Italy	7.05	-0.009	(0.63)	**0.144**	(0.08)	**0.257**	(0.03)
Poland	7.07	0.002	(0.85)	**0.261**	(0.00)	**0.261**	(0.02)
Czech Republic	7.09	**-0.044**	(0.00)	**0.244**	(0.00)	**0.457**	(0.00)
West Bank-Gaza	7.30	-0.039	(0.38)	0.051	(0.86)	-0.059	(0.87)
Bosnia	7.50	**0.060**	(0.01)	-0.034	(0.71)	0.233	(0.14)
Costa Rica	7.58	0.017	(0.46)	-0.039	(0.64)	0.202	(0.13)
Indonesia	7.69	-0.007	(0.68)	**0.310**	(0.00)	**0.276**	(0.02)
Slovakia	7.82	**0.022**	(0.10)	**0.389**	(0.00)	0.261	(0.13)
Argentina	7.87	**0.026**	(0.10)	0.066	(0.27)	**0.232**	(0.01)
Panama	7.95	0.016	(0.20)	**0.078**	(0.08)	0.086	(0.27)
Honduras	8.03	-0.014	(0.46)	**0.209**	(0.02)	0.134	(0.36)
Turkey	8.11	0.007	(0.65)	**0.155**	(0.03)	**0.484**	(0.00)
Croatia	8.13	**0.028**	(0.01)	**0.098**	(0.02)	**0.350**	(0.04)
Kazakhstan	8.13	0.014	(0.43)	**0.160**	(0.09)	0.221	(0.12)
Azerbaijan	8.22	0.010	(0.19)	**0.169**	(0.00)	**0.395**	(0.03)
Bulgaria	8.27	0.004	(0.78)	**0.293**	(0.00)	**0.342**	(0.01)
Nicaragua	8.29	-0.026	(0.18)	0.094	(0.18)	**0.270**	(0.07)
Guatemala	8.38	0.013	(0.64)	**0.177**	(0.06)	0.218	(0.19)
Peru	8.40	-0.007	(0.67)	**0.136**	(0.03)	0.048	(0.66)
Ukraine	8.48	**0.027**	(0.02)	**0.098**	(0.09)	-0.018	(0.91)
Brazil	8.52	-0.001	(0.91)	0.091	(0.26)	**0.257**	(0.00)
Romania	8.58	**0.037**	(0.00)	0.060	(0.28)	**0.408**	(0.00)
Lithuania	8.60	**0.032**	(0.01)	**0.289**	(0.00)	**0.256**	(0.08)
Russia	8.68	**0.017**	(0.04)	**0.185**	(0.00)	-0.132	(0.40)
Bangladesh	8.70	-0.005	(0.70)	0.014	(0.82)	0.020	(0.81)
Philippines	8.75	**0.047**	(0.00)	**0.098**	(0.09)	0.112	(0.25)
Venezuela	8.81	-0.009	(0.33)	-0.053	(0.12)	**0.122**	(0.07)
Dominican Republic	8.86	-0.019	(0.20)	**0.127**	(0.01)	-0.032	(0.70)
Bolivia	8.87	0.002	(0.92)	**0.166**	(0.02)	0.107	(0.34)
Colombia	8.96	-0.001	(0.91)	0.018	(0.73)	-0.016	(0.82)
Thailand	9.00	0.010	(0.43)	0.071	(0.13)	0.035	(0.64)
Georgia	9.05	0.010	(0.55)	0.022	(0.81)	**0.281**	(0.04)
Pakistan	9.45	**0.068**	(0.00)	0.087	(0.24)	-0.175	(0.52)
Moldova	9.49	-0.033	(0.12)	0.028	(0.32)	-0.197	(0.34)
Albania	9.53	**-0.041**	(0.01)	0.054	(0.12)	-0.005	(0.84)
Ecuador	9.58	-0.002	(0.94)	0.067	(0.33)	-0.064	(0.73)
El Salvador	9.68	0.005	(0.74)	0.164	(0.27)	-0.007	(0.94)
Haiti	9.72	-0.005	(0.78)	0.028	(0.61)	-0.087	(0.23)
Mexico	9.85	-0.003	(0.84)	-0.017	(0.78)	-0.114	(0.62)
Kyrgyzstan	10.09	-0.004	(0.71)	0.093	(0.25)	-0.035	(0.85)

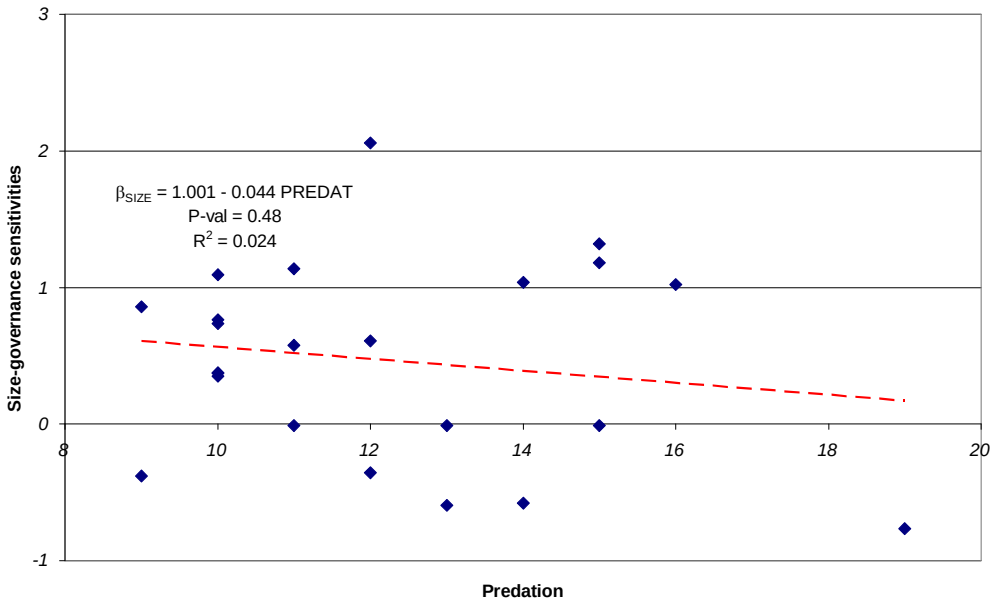
Figure 4
The impact of predation on firm governance determinants

These figures plot the coefficients (sensitivities) reported in Table XI (coefficients on growth opportunities, industry dependence on external financing, and size for the ISS sample (Panel A); and laws and regulation, firm size, and foreign ownership for the WBES sample (Panel B) against predation (ISS sample) and composite obstacles (WBES sample). The intercepts and the slopes of the lines are determined by OLS regressions of sensitivities on predation or composite obstacles. The ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

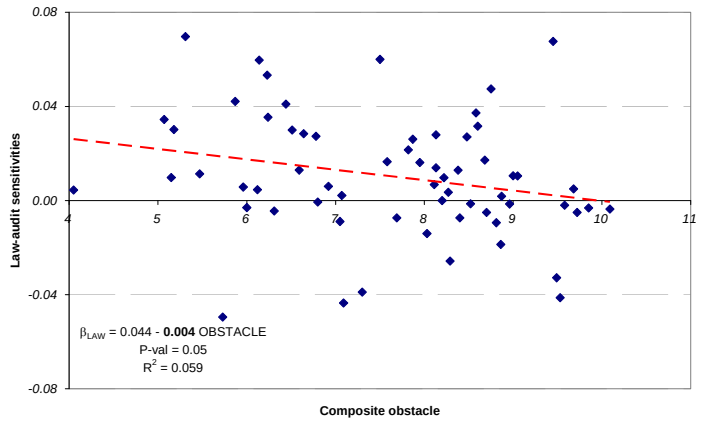
Panel A.1: ISS sample



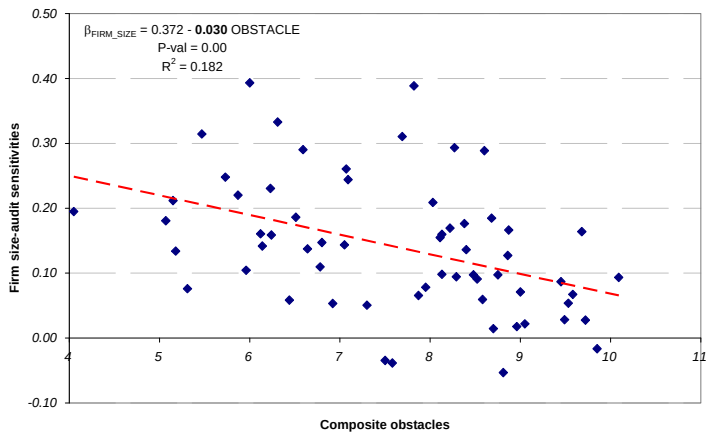
Panel A.2: ISS sample



Panel B.1: WBES sample



Panel B.2: WBES sample



Panel B.3: WBES sample

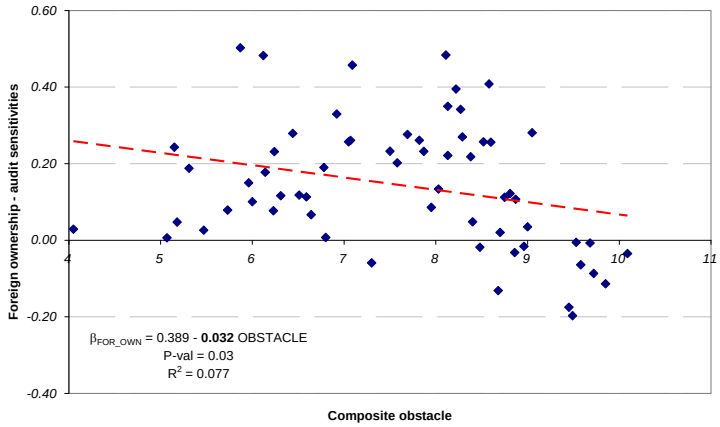


Table XIV
Within-country variation in firm governance and predation
OLS regressions of absolute values of abnormal firm governance on predation, autocracy, and obstacles with clustered (by country) standard errors

This table reports the results of OLS regressions of absolute values of abnormal levels of firm governance on predation, autocracy, growth opportunities, industry dependence on external financing, cash, size, cross-listing dummy, anti-self dealing, GDP per capita, financial development, black market, freedom of press, and industry dummies (Panel A: CLSA, S&P, and ISS samples); composite obstacles, laws and regulations, firm size, foreign ownership, GDP per capita, and industry dummies (Panel B: WBES sample). The abnormal levels of governance are defined as residuals of the following regressions: OLS regression of governance and disclosure on growth opportunities, industry dependence on external financing, size, cash, cross-listing dummy, anti-self dealing, GDP per capita, financial development, black market, freedom of press and industry dummies (for the CLSA, S&P and ISS samples); audit on laws and regulations, firm size, foreign ownership, GDP per capita, and industry dummies (for the WBES sample). The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. The CLSA sample is either for 2000 or 2001. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. The ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A

Dependent variable	$\lvert\varepsilon_{CLSA}\rvert$		$\lvert\varepsilon_{SP}\rvert$		$\lvert\varepsilon_{ISS}\rvert$	
Predation	**-0.370**	-	**-0.272**	-	**-0.198**	-
	(0.01)		(0.00)		(0.00)	
Autocracy	-	**-0.138**	-	**-0.328**	-	**-0.384**
		(0.08)		(0.00)		(0.00)
Growth opportunities	0.273	0.292	**-0.362**	**-0.405**	-0.045	-0.074
	(0.35)	(0.32)	(0.00)	(0.00)	(0.53)	(0.29)
Dependence on external financing	-1.028	-0.714	-0.586	-0.517	-0.029	0.024
	(0.23)	(0.41)	(0.32)	(0.37)	(0.88)	(0.90)
Size	**0.665**	**0.613**	**-0.685**	**-0.650**	**0.081**	**0.110**
	(0.00)	(0.01)	(0.00)	(0.00)	(0.01)	(0.00)
Cash	-1.707	-0.573	**3.890**	**5.058**	-0.044	-0.107
	(0.62)	(0.87)	(0.07)	(0.02)	(0.91)	(0.77)
Cross-listing dummy	**0.217**	**0.218**	0.623	0.602	0.713	0.777
	(0.00)	(0.00)	(0.31)	(0.38)	(0.40)	(0.34)
Anti-self dealing	**-2.673**	-0.967	**-2.281**	0.378	0.258	-0.467
	(0.07)	(0.52)	(0.01)	(0.62)	(0.66)	(0.36)
GDP per capita	0.000	0.000	**0.000**	**0.000**	0.000	**0.000**
	(0.22)	(0.46)	(0.00)	(0.00)	(0.48)	(0.00)
Financial development	1.934	1.567	2.410	2.329	1.661	**1.689**
	(0.32)	(0.34)	(0.18)	(0.35)	(0.12)	(0.10)
Black market	**2.069**	**2.571**	2.660	2.428	**2.755**	**2.247**
	(0.00)	(0.00)	(0.18)	(0.25)	(0.00)	(0.00)
Freedom of press	**2.869**	**1.744**	**1.396**	**2.535**	**1.761**	**1.359**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Number of observations	531	531	1,414	1,414	6,378	6,378
Regression R^2	0.095	0.054	0.106	0.138	0.021	0.038
F-test of joint significance	**3.610**	**1.950**	**10.990**	**14.960**	**1.760**	**3.260**
	(0.00)	(0.02)	(0.00)	(0.00)	(0.00)	(0.00)

Panel B	
Dependent variable	**$\lvert\varepsilon_{AUDIT}\rvert$**
Composite obstacles	**-0.088**
	(0.00)
Laws and regulations	**-0.018**
	(0.00)
Firm size	**-0.004**
	(0.00)
Foreign ownership	**-0.161**
	(0.00)
GDP per capita	**0.000**
	(0.01)
Number of observations	6,252
Regression R^2	0.303
F-test of joint significance	**1.990**
	(0.00)

Table XV
Addressing endogeneity
Instrumental variables regressions of firm governance determinants and firm valuation

Panel A.1 reports the results of the governance determinants regressions for the CLSA, S&P, and ISS samples using distance from the equator, English language dummy, Western European language dummy, and trade share as instruments for predation. Panel B.1 reports the results of the governance determinants regression for the WBES sample using distance from the equator, Western European language dummy, and trade share as instruments for predation. Panel A.2 reports the results of firm valuation regressions for the CLSA, S&P, and ISS samples using distance from the equator, Western European language dummy, and trade share as instruments for predation and interaction of predation with firm governance. Panel A.2 reports the results of the firm performance regression for the WBES sample using distance from the equator, Western European language dummy, and trade share as instruments for composite obstacles and interaction of composite obstacles with audit. The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. The last row of the table contains the F-test statistics of the Durbin-Wu-Hausman test for endogeneity. To perform the test, first, endogenous variables are regressed on the set of exogenous variables. Then the fitted values of residuals are used as additional variables of the base regressions. High values of the F-test of joint significant indicate endogeneity of the variables. The CLSA sample is either for 2000 or 2001. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. The ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.

Panel A.1

Dependent variable	CLSA governance	S&P transparency	ISS governance
Instrumented Predation	**-2.490**	**-1.672**	**-5.021**
	(0.03)	(0.03)	(0.04)
Growth opportunities	**1.482**	**1.352**	**0.665**
	(0.07)	(0.00)	(0.01)
Dependence on external financing	0.725	-0.318	**0.708**
	(0.23)	(0.42)	(0.05)
Size	0.686	**1.429**	**1.300**
	(0.17)	(0.01)	(0.02)
Cash	-0.079	**-33.968**	3.366
	(0.88)	(0.00)	(0.36)
Cross-listing dummy	**4.459**	3.239	2.018
	(0.10)	(0.11)	(0.17)
Anti-self dealing	**14.459**	**17.027**	-21.076
	(0.10)	(0.04)	(0.58)
GDP per capita	-0.001	0.000	0.000
	(0.48)	(0.51)	(0.91)
Financial development	**1.433**	1.347	**2.028**
	(0.10)	(0.12)	(0.10)
Black market	**-0.830**	-0.234	-0.239
	(0.00)	(0.33)	(0.22)
Freedom of press	**0.493**	**0.383**	**2.423**
	(0.10)	(0.00)	(0.10)
Number of observations	526	1,414	6,299
F-test of joint significance	**237.930**	**6.950**	**65.890**
	(0.00)	(0.00)	(0.00)
Durbin-Wu-Hausman test	**28.390**	**43.230**	**19.020**
	(0.00)	(0.00)	(0.00)

Panel A.2

Dependent variable	Valuation		
CLSA governance	**0.800**	-	-
	(0.06)		
S&P transparency	-	**0.046**	-
		(0.06)	
ISS governance	-	-	**0.477**
			(0.03)
Instrumented Predation	**-0.210**	0.088	**-1.981**
	(0.04)	(0.32)	(0.03)
*Instrumented CLSA governance * Predation*	**-0.005**	-	-
	(0.10)		
*Instrumented S&P transparency * Predation*	-	-0.002	-
		(0.22)	
*Instrumented ISS governance * Predation*	-	-	**-0.041**
			(0.02)
Growth opportunities	**0.525**	**0.413**	0.299
	(0.00)	(0.00)	(0.77)
Size	**-0.177**	**-0.208**	**-0.092**
	(0.00)	(0.00)	(0.00)
Cross-listing dummy	**0.123**	0.238	0.160
	(0.10)	(0.20)	(0.66)
Anti-self dealing	-0.001	-0.155	0.980
	(0.98)	(0.55)	(0.85)
GDP per capita	0.000	0.000	0.000
	(0.55)	(0.16)	(0.22)
Financial development	**0.012**	**0.081**	0.003
	(0.05)	(0.03)	(0.40)
Number of observations	514	1,385	5,856
F-test of joint significance	**69.120**	**52.150**	**15.320**
	(0.00)	(0.00)	(0.00)
Durbin-Wu-Hausman test	**17.110**	**22.380**	**30.290**
	(0.00)	(0.00)	(0.00)

Panel B.1	
	WBES Audit
Composite obstacles	**-0.569**
	(0.06)
Laws and regulations	**0.478**
	(0.04)
Firm size	0.021
	(0.79)
Foreign ownership	**0.355**
	(0.00)
GDP per capita	**0.000**
	(0.08)
Number of observations	5,541
F-test of joint significance	**17.500**
	(0.00)
Durbin-Wu-Hausman test	**19.100**
	(0.00)

Panel B.2	
	Performance
Audit	**15.862**
	(0.01)
Instrumented Composite obstacles	**-1.657**
	(0.02)
*Instrumented Audit * Composite obstacles*	-2.032
	(0.14)
Laws and regulations	-0.005
	(0.66)
Firm size	**0.083**
	(0.03)
Foreign ownership	0.000
	(0.89)
State ownership	-0.002
	(0.28)
GDP per capita	0.000
	(0.68)
Inflation	**-0.430**
	(0.01)
Number of observations	3,959
F-test of joint significance	**285.670**
	(0.00)
Durbin-Wu-Hausman test	**13.090**
	(0.00)

Table XVI
Addressing endogeneity
Panel regressions of time-differences in firm governance determinants and firm valuation with lagged levels as instruments for contemporaneous differences

*This table reports the result of instrumental variables regressions using lagged levels of variables as instruments for contemporaneous differences. Panel A.1 contains estimations of governance determinants regressions for the CLSA, S&P, and ISS samples. ΔCLSA governance is the difference in CLSA governance between 2001 and 2000. ΔS&P transparency is the difference in S&P transparency between 2001 and 2000. ΔISS governance is the difference in ISS governance between 2005 and 2004. ΔGrowth opportunities is the difference in Growth opportunities between 2001 and 2000 for the CLSA and S&P samples, and 2005 and 2004 for the ISS sample. ΔSize is the difference in Size between 2001 and 2000 for the CLSA and S&P samples, and 2005 and 2004 for the ISS sample. ΔCash is the difference in Cash between 2001 and 2000 for the CLSA and S&P samples, and 2005 and 2004 for the ISS sample. ΔGDP per capita is the difference in GDP per capita between 2001 and 2000 for the CLSA and S&P samples, and 2005 and 2004 for the ISS sample. ΔFinancial development is the difference in Financial development between 2001 and 2000 for the CLSA and S&P samples, and 2005 and 2004 for the ISS sample. The instruments are Growth opportunities in 1999 for the CLSA and S&P samples and in 2003 for the ISS sample; Size in 1999 for the CLSA and S&P samples and in 2003 for the ISS sample; Cash in 1999 for the CLSA and S&P samples and in 2003 for the ISS sample; Growth opportunities * Predation in 1999 for the CLSA and S&P samples and in 2003 for the ISS sample; Size * Predation in 1999 for the CLSA and S&P samples and in 2003 for the ISS sample; GDP per capita in 1999 for the CLSA and S&P samples and in 2003 for the ISS sample; Financial development in 1999 for the CLSA and S&P samples and in 2003 for the ISS sample. The instrumented variables are ΔGrowth opportunities, ΔSize, ΔCash, ΔGrowth opportunities * Predation, ΔSize * Predation, ΔGDP per capita, and ΔFinancial development. Panel A.2 contains estimations of firm valuation regressions for the CLSA, S&P, and ISS samples. ΔValuation is the difference in Valuation between 2001 and 2000 for the CLSA and S&P samples, and 2005 and 2004 for the ISS sample. The instruments are CLSA governance in 2000, S&P transparency in 2000, ISS governance in 2004, Growth opportunities in 2000 for the CLSA and S&P samples, and in 2004 for the ISS sample, Size in 2000 for the CLSA and S&P samples and in 2004 for the ISS sample, CLSA governance* Predation in 2000, S&P transparency * Predation in 2000, ISS governance * Predation in 2004, GDP per capita in 2000 for the CLSA and S&P samples and in 2004 for the ISS sample, Financial development in 2000 for the CLSA and S&P samples and in 2004 for the ISS sample. The instrumented variables are ΔCLSA governance, ΔS&P transparency, ΔISS governance, ΔGrowth opportunities, ΔSize, ΔGDP per capita, and ΔFinancial development. The numbers in parentheses are probability levels at which the null hypothesis of zero coefficient can be rejected. The coefficients significant at the 10% level (based on a two-tailed test) or higher are in bold face. The S&P transparency is either for 1997, 1998, 1999, 2000, or 2001. The ISS governance is for December 2005. WBES variables are for 2000. All of the variables are defined in Appendixes A, B, C, and D and Table I.*

Panel A.1

Dependent variable	ΔCLSA governance	ΔS&P transparency	ΔISS governance
ΔGrowth opportunities	**65.915**	0.033	**0.388**
	(0.07)	(0.20)	(0.01)
ΔSize	-101.553	-82.398	**0.140**
	(0.88)	(0.43)	(0.02)
ΔCash	-16.390	**-0.239**	**-0.987**
	(0.75)	(0.00)	(0.00)
*ΔGrowth opportunities * Predation*	65.915	**-0.016**	**-0.283**
	(0.70)	(0.08)	(0.10)
*ΔSize * Predation*	**-0.079**	**-2.123**	**-4.480**
	(0.08)	(0.04)	(0.00)
ΔGDP per capita	-34.507	-32.234	2.218
	(0.30)	(0.23)	(0.80)
ΔFinancial development	13.442	10.834	**3.239**
	(0.27)	(0.18)	(0.10)
Number of observations	304	700	4,988
F-test of joint significance	**66.010**	**22.130**	**34.230**
	(0.00)	(0.00)	(0.00)

Panel A.2			
Dependent variable	**ΔValuation**		
ΔCLSA governance	**0.109**	-	-
	(0.04)		
ΔS&P transparency	-	0.288	-
		(0.25)	
ΔISS governance	-	-	**4.414**
			(0.05)
*ΔCLSA governance * Predation*	**-0.005**	-	-
	(0.05)		
*ΔS&P transparency * Predation*	-	**-0.008**	-
		(0.10)	
*ΔISS governance * Predation*	-	-	-0.238
			(0.12)
ΔGrowth opportunities	-0.011	**0.021**	0.342
	(0.13)	(0.10)	(0.49)
ΔSize	**-0.945**	-25.814	**-0.823**
	(0.00)	(0.51)	(0.00)
ΔGDP per capita	0.000	0.000	0.000
	(0.14)	(0.30)	(0.12)
ΔFinancial development	-0.002	**0.233**	**0.424**
	(0.35)	(0.05)	(0.10)
Number of observations	308	666	4,314
F-test of joint significance	**6.630**	**52.150**	**15.320**
	(0.00)	(0.00)	(0.00)

Appendix A: CLSA governance scores

The CLSA corporate governance scores are based on how analysts rate a company on 51 elements in 6 aspects of corporate governance. The annual data cover 606 firms from 25 countries from 2000 through 2001.

Discipline	Transparency	Independence	Accountability	Responsibility	Fairness
1. Explicit public statement placing a priority on corporate governance.	1. Disclosure of financial targets, for example, three- and five-year ROA/ROE.	1 Board and senior management treatment of shareholders	1. Board plays a supervisory rather than executive role.	1. Acting effectively against individuals who have transgressed.	1. Majority shareholders treatment of minority shareholders.
2. Management incentives toward a higher share price.	2. Timely release of Annual Reports.	2. Chairman who is independent from management.	2. Non-executive directors demonstrably independent.	2. Record on taking measures in cases of mismanagement.	2. All equity holders have the right to call general meetings.
3. Sticking to clearly defined core business.	3. Timely release of semi-annual financial announcements.	3. Executive management committee comprised differently from the board.	3. Independent, non-executive directors comprising at least half of the board.	3. Measures to protect minority interests.	3. Voting methods easily accessible (for example, through proxy voting).
4. Having an appropriate estimate of the cost of equity.	4. Timely release of quarterly results.	4. Audit committee chaired by the independent director.	4. Foreign nationals on the board.	4. Mechanisms to allow punishment of the executive/management committee.	4. Quality of information provided for general meetings.
5. Having an appropriate estimate of the cost of capital.	5. Prompt disclosure of results with no leakage ahead of announcement.	5. Remuneration committee chaired by independent director.	5. Full board meeting at least every quarter.	5. Share trading by board members fair and fully transparent.	5. Guiding market expectation on fundamentals.
6. Conservatism in the issuance of equity or dilutive instruments.	6. Clear and informative results disclosure.	6. Nominating committee chaired by independent director.	6. Board members able to exercise effective scrutiny.	6. Board small enough to be efficient and effective.	6. Issuance of ADRs or placement of shares fair to all shareholders.
7. Ensuring debt is manageable, used only for projects with adequate returns.	7. Accounts presented according to IGAAP.	7. External auditors unrelated to the company.	7. Audit committee that nominates and reviews work of external auditors.		7. Controlling shareholder group owning less than 40% of the company.
8. Returning excess cash to shareholders.	8. Prompt disclosure of market-sensitive information.	8. No bank representatives or other large creditors on the board.	8. Audit committee that supervises internal audit and accounting procedures.		8. Portfolio investors owning at least 20% of the voting shares.
9. Discussion in the annual report on corporate governance.	9. Accessibility of investors to senior management.				9. Priority given to investor relations.
	10. Website where announcements are updated promptly.				10. Total board remuneration rising no faster than net profit.

Appendix B: S&P transparency rankings

S&P rankings are based on transparency and disclosure, which are evaluated by searching for the inclusion of 91 disclosure attributes in the company's annual reports. The annual data cover 1,494 firms from 40 countries during 1997 through 2002.

Ownership structure and investor relations	Financial transparency and information disclosure	Board and management structure and process
Does the company disclose the:	**Does the company disclose:**	**Does the company disclose:**
1. number of issued and outstanding ordinary shares? Par value of each ordinary share?	1. its accounting policy?	1. a list of board members (names)?
2. top 1 shareholder?	2. the accounting standards it uses for its accounts?	2. details about the directors (other than name/title)?
3. top 3 shareholders?	3. the accounts according to an internationally recognized accounting standard (IAS/US GAAP)?	3. details about the current employment/position of the directors provided?
4. top 5 shareholders?	4. its balance sheet according to international accounting standards (IAS/US GAAP)?	4. details about previous employment/positions provided?
5. top 10 shareholders?	5. its income statement according to international accounting standards (IAS/US GAAP)?	5. when each of the directors joined the board?
6. description of share classes provided?	6. its cash flow statement according to international accounting standards (IAS/US GAAP)?	6. classification of the directors as an executive or an outside director?
7. review of shareholders by type?	7. a basic earnings forecast of any kind?	7. a chairman's name?
8. number and identity of shareholders holding more than 3%?	8. a detailed earnings forecast?	8. details about the chairman (other than name/title)?
9. number and identity of shareholders holding more than 5%?	9. financial information on a quarterly basis?	9. details about the role of the board of directors at the company?
10. number and identity of shareholders holding more than 10%?	10. a segment analysis (broken down by business line)?	10. a list of matters reserved for the board?
11. percentage of cross-ownership?	11. the name of its auditing firm?	11. a list of board committees?
12. existence of a Corporate Governance Charter or Code of Best Practice?	12. a reproduction of the auditors' report?	12. the existence of an audit committee?
13. Corporate Governance Charter / Code of Best Practice itself?	13. how much it pays in audit fees to the auditor?	13. the names on the audit committee?
14. details about its Articles of Association? (e.g., changes)	14. any non-audit fees paid to auditor?	14. the existence of a remuneration/compensation committee?
15. voting rights for each voting or non-voting share?	15. consolidated financial statements (or only the parent/holding co)?	15. the names on the remuneration/compensation committee?
16. way that shareholders nominate directors to the board?	16. the methods of asset valuation?	16. the existence of a nomination committee?
17. way shareholders convene an Electoral General Meeting?	17. information on the method of fixed assets depreciation?	17. the names on the nomination committee?
18. procedure for putting inquiry rights to the board?	18. a list of affiliates in which it holds a minority stake?	18. the existence of other internal audit functions besides the Audit Committee?
19. procedure for putting forth proposals at shareholders meetings?	19. a reconciliation of its domestic accounting standards to IAS/US GAAP?	19. the existence of a strategy/investment/finance committee?
20. review of the last shareholders meeting? (e.g., minutes)	20. the ownership structure of its affiliates?	20. the number of shares in the company held by the directors?
21. calendar of the important shareholders dates?	21. the details of the kind of business it is in?	21. a review of the last board meeting? (e.g., minutes)
	22. the details of the products or services produced/provided?	22. whether the board provides director training?
	23. the output in physical terms? (number of users, etc.)	23. the decision-making process of the directors' pay?
	24. the characteristics of assets employed?	24. the specifics of the directors' pay? (e.g., the salary levels, etc.)
	25. the efficiency indicators? (ROA, ROE, etc.)	25. the form of the directors' salaries? (e.g., cash, shares, etc.)
	26. any industry-specific ratios?	26. the specifics on the performance-related pay for directors?
	27. a discussion of corporate strategy?	27. the decision-making of the managers' (not board) pay?
	28. any plans for investment in the coming year(s)?	28. the specifics of the managers' (not on board) pay? (e.g., salary levels, etc.)
	29. the detailed information about investment plans in the coming year(s)?	29. the form of the managers' (not on the board) pay?
	30. an output forecast of any kind?	30. the specifics on the performance-related pay for the managers?
	31. an overview of trends in its industry?	31. the list of the senior managers (not on the board of directors)?
	32. its market share for any or all of its businesses?	32. the backgrounds of the senior managers?
	33. a list/register of related-party transactions?	33. the details of the CEO's contract?
		34. the number of shares held by the senior managers?
		35. the number of shares held in other affiliated companies by the managers?

Appendix C: Institutional Shareholder Services (ISS) governance

The ISS governance index includes 44 governance attributes in 4 sub-categories. The annual data cover 7,530 firms from 23 countries (5,296 firms from the U.S.) from 2003 through 2006.

Board	Audit	Anti-takeover	Compensation and ownership
1. All directors attended 75% of the board meetings or had a valid excuse.	1. Consulting fees paid to the auditors are less than audit fees paid to the auditors.	1. Single class, common shares only.	1. Directors are subject to stock ownership requirements.
2. CEO serves on the boards of two or fewer public companies.	2. Audit committee comprised solely of independent outsiders.	2. Majority vote requirement to approve mergers (not supermajority).	2. Executives are subject to stock ownership guidelines.
3. Board is controlled by more than 50% independent outside directors	3. Auditors ratified at the most recent annual meeting.	3. Shareholder may call special meetings.	3. No interlocks among compensation committee members.
4. Board size is greater than 5 but less than 16.		4. Shareholder may act by written consent.	4. Directors receive all or a portion of their fees in stock.
5. CEO is not listed as having a related-party transaction.		5. Company either has no poison pill or a pill that was shareholder approved.	5. All stock-incentive plans adopted with shareholder approval.
6. No former CEO on the board.		6. Company is not authorized to issue blank-check preferred.	6. Options grants align with company performance and reasonable burn rate.
7. Compensation committee comprised solely of independent outsiders.			7. Company expenses stock options.
8. Chairman and CEO are separate or there is a lead director.			8. All directors with more than one year of service own stock.
9. Nominating committee comprised solely of independent outsiders.			9. Officers' and directors' stock ownership is at least 1% but not over 30% of the total shares outstanding.
10. Governance committee exists and met in the past year.			10. Re-pricing is prohibited.
11. Shareholders vote on directors selected to fill vacancies.			
12. Governance guidelines are publicly disclosed.			
13. Annually elected board (no staggered board).			
14. Policy exists on outside directorships (four or fewer boards is the limit).			
15. Shareholders have cumulative voting rights.			
16. Shareholder approval is required to increase/decrease board size.			
17. Majority vote requirement to amend charter/bylaws (not supermajority).			
18. Board has the express authority to hire its own advisors.			
19. Performance of the board is reviewed regularly.			
20. Board approved succession plan in place for the CEO.			
21. Outside directors meet without CEO and disclose number of times met.			
22. Directors are required to submit resignation upon a change in their job.			
23. Board cannot amend bylaws without shareholder approval or can only do so under limited circumstances.			
24. Does not ignore shareholder proposals.			
25. Qualifies for proxy contest defenses combination points.			

Appendix D: WBES obstacles sample

The data cover 10,032 firms from 81 countries based on the 1999 and 2002 World Bank's surveys. We identify 6 items relevant for the study.

Corruption obstacle	Taxes and regulation obstacle	Crime obstacle	Availability of laws and regulation	Predictability of laws and regulations	Confidence in judicial system today
This variable is based on the survey question: "Please judge on a four-point scale, where "4" means a major obstacle, "3" means a moderate obstacle, "2" means a minor obstacle, and "1" means it is no obstacle, how problematic corruption is for the operation and growth of your business?"	This variable is based on the survey question: "Please judge on a four-point scale, where "4" means a major obstacle, "3" means a moderate obstacle, "2" means a minor obstacle, and "1" means it is no obstacle, how problematic taxes and regulation are for the operation and growth of your business?"	This variable is based on the survey question: "Please judge on a four-point scale, where "4" means a major obstacle, "3" means a moderate obstacle, "2" means a minor obstacle, and "1" means it is no obstacle, how problematic organized crime and mafia are for the operation and growth of your business?"	This variable is based on the survey question: "In general, information on the laws and regulations affecting my firm is easy to obtain" (1. Fully disagree; 2. Disagree in most cases; 3. Tend to disagree; 4. Tend to agree; 5. Agree in most cases; and 6. Fully agree).	This variable is based on the survey question: "In general, interpretations of laws and regulations affecting my firm are consistent and predictable" (1. Fully disagree; 2. Disagree in most cases; 3. Tend to disagree; 4. Tend to agree; 5. Agree in most cases; and 6. Fully agree).	This variable is based on the survey question: "In resolving business disputes, do you believe in your country's court system?" (1. Never; 2. Seldom; 3. Sometimes; 4. Frequently; 5. Usually; and 6. Always).