Which firms benefit from bribes, and by how much? Evidence from corruption cases worldwide

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Abstract

We analyze a hand-collected sample of 166 prominent bribery cases, involving 107 publicly listed firms from 20 stock markets that have been reported to have bribed government officials in 52 countries worldwide during 1971-2007. We focus on the initial date of award of the contract for which the bribe was paid (rather than of the revelation of the bribery). Our data enable us to describe in detail the mechanisms through which bribes affect firm value. We find that firms that win contracts by paying bribes under-perform their peers for up to three years before and after winning the contract for which the bribe was paid. Firm performance, the rank of the politicians bribed, as well as bribe-paying and bribe-taking country characteristics affect the magnitude of the bribes and the benefits that firms derive from them.

Keywords: Corruption, bribes, firm performance, country characteristics

JEL classification: G14; G34; F23; K42; M14

1. Introduction

Bribery is becoming an increasingly important concern, both for governments and for companies. Over the past 30 years, a large number of firms around the world, including Siemens, BAE Systems, Hyundai, Lockheed Martin, and Halliburton have been reported to have bribed government officials.[1] These are not isolated incidents. The *Dow Jones State of Anti-Corruption Survey* (2011) reports that more than 55% of companies delay or avoid working with global business partners, due to bribery concerns, and that more than 40% of companies are reported to have lost business to competitors that won contracts unethically. Survey evidence analyzed by D'Souza and Kaufmann (2010) show that, in 2006, 11% of OECD firms reported that "firms like theirs" bribe in other OECD countries, 26% of OECD firms reported bribery in poorly governed developing countries, and 50% of firms located in low-income countries reported bribery in their home country.

Despite a huge academic literature on bribery,[2] there is little *direct* evidence on the types of firms that pay bribes, on the factors that influence the magnitude of these bribes, and on the benefits that firms derive from them. This is not surprising since this kind of activity is usually undisclosed. Most of the literature has therefore attempted to measure bribery *indirectly*, by relying on questionnaires and/or by constructing indices at the country-level using survey evidence of corruption perceptions.[3] In addition, there is little analysis of direct firm-level data, with firm-level evidence also being largely derived from surveys (Hellman and Schankerman, 2000; Svensson, 2003; Cull and Xu, 2005; Fisman and Svensson, 2007; D'Souza and Kaufmann,

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[1] For example, according to the *Daily Telegraph* (May 18, 2011), "BAE Systems will pay a $79m (£49m) fine to the US government to settle a civil prosecution linked to an earlier criminal investigation in which BAE admitted to "defrauding the US" over the sale of fighter aircraft abroad… At the same time, BAE also settled a separate bribery investigation by the Serious Fraud Office, agreeing to pay £30m for failing to keep proper accounting records over the sale of a radar system to Tanzania in return for the prosecution being dropped… In a court filing, the DoJ claimed BAE transferred more than £10m and $9m to Swiss bank accounts controlled by an agent with a high probability that a payment would go to a Saudi Arabian official in a position of influence."

[2] For general surveys of the literature on corruption, see Bardhan (1997), Jain (2001), and Svensson (2005).

[3] Popular measures of corruption used in previous research include, among others, the Corruption Perceptions Index constructed by Transparency International (www.transparency.org), the International Country Risk Guide (ICRG) corruption index (www.prsgroup.com), the Global Competitive Report (GCR) corruption index, the Business Environment and Enterprise Performance Surveys (BEEPS) (see Hellman, Jones, Kaufmann, and Schankerman, 2000), and the Worldwide Governance Indicators (composite indices derived by Kaufmann, Kraay, and Mastruzzi (2009) from a large number of other indices).

2010). However, other studies have identified several potential problems with self-reported survey evidence and the indices commonly used to measure corruption. [4]

Consequently, there are calls in the literature for moving away from survey data to the analysis of real-world decisions associated with corruption (Svensson, 2005; Fisman and Miguel, 2007; Reinikka and Svensson, 2004; Olken, 2006). The relatively sparse literature on corruption that uses firm-level data from actual bribery incidents typically focus on the date of the *revelation* of the bribery incident. For example, Smith, Stettler, and Beedles (1984) and Karpoff, Lee, and Martin (2010) examine the impact on firm value of the revelation of the bribery on stock prices in the U.S. Fan, Rui, and Zhao (2008) investigate the impact on leverage in China. Di Tella and Schargrodsky (2003) examine procurement in Buenos Aires public hospitals in the 1990s, and show that prices of certain inputs declined following a government crackdown on corruption. Hsieh and Moretti (2006) examine the extent of underpricing of Iraqi oil during the United Nations' oil-for-food program.

In our paper, we take a different approach to most of the previous studies. We directly analyze the magnitude and valuation effects of a hand-collected sample of 166 prominent bribery cases, involving 107 publicly listed firms from 20 stock markets that have been reported to have bribed government officials in 52 countries worldwide, during 1971-2007. We analyze actual documented bribery incidents (rather than perceptions or self-reported survey evidence), and we focus on the *initial date of award of the contract* for which the bribe was paid (rather than the

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[4] Bertrand and Mullainathan (2001) argue that subjective dependent variables are biased because the measurement error is likely to correlate in a causal way with the explanatory variables. Knack (2006) identifies numerous biases with the surveys that constitute the raw inputs for the indices used to measure corruption. These biases involve whether the surveys record the participants' "expert opinions" (or perceptions of what "other firms' are doing) rather than their own actual experience, whether respondents are influenced by previous ratings in their responses (or are influenced by optimism, recent economic performance, and recent publicized corruption scandals), whether the ratings use inputs from local correspondents but are finally determined centrally by a very small number of people, whether the responses refer to corruption at the central/federal level or at the local level, how individual constituents are weighted, interdependence of sources for some of the ratings, selection bias in the firms included in surveys at the firm level, changes in the survey questionnaires over time, regression to the mean in many of the ratings over time as previous "errors" are corrected by the issuing organizations in subsequent ratings, and uncertainties about the actual (as opposed to the intended) content of some indicators. Also, aggregating information from numerous sources appears to be less accurate than using a single source. Donchev and Ujhelyi (2009) claim, in addition, that economic development, characteristics of the political system, and cultural variables tend to bias perceptions of corruption *away* from experience. Fan, Lin, and Treisman (2009) report that countries with similar levels of corruption frequency (gleaned from surveys) may have very different levels of corruption perceptions and vice versa.

date of revelation of the bribery). We attempt to answer four questions. Do firms that win government contracts by paying bribes differ in their performance characteristics from their peers? Which firm performance, government official, bribe-paying country and bribe-taking country characteristics affect the magnitude of the bribes that firms pay? What benefits do firms receive by paying bribes and which of the above factors affect these benefits? What determines the division of rents between bribing firms and government officials? Or to put it more simply: Who bribes? How much do they pay? What benefits do they get? How are the rents divided?

In our analysis, we try to match specific bribe payments with specific contracts awarded to the firm at a time the bribery was not public knowledge. Our measure of the *net* benefits that firms receive by paying bribes is the *gross* benefits (change in total market capitalization at the announcement of the award of the contract estimated using event study methodology) minus the amount of the bribe payment to win the contract. To illustrate our empirical methodology, consider Figure 1 where we use Elf Aquitaine, a major French oil company, as an example. Elf Aquitaine was reported to have been involved in widespread bribery of government officials in Europe and Africa, resulting in jail terms for numerous executives in a 2002-2003 French court trial. In one reported bribery incident, Elf paid the equivalent of $46 million (all figures are in constant 2005 U.S. dollars) as a bribe to a prominent member of Germany's ruling Christian Democratic Party (CDU) in order to acquire oil refinery assets at Leuna from the Treuhandanstalt (the German government agency that handled the privatization of East German state-owned assets following Germany's re-unification). In order to estimate the benefits that Elf derived from this bribe, we trace back the award of the contract to Elf and find three relevant announcement dates related to this deal, namely 16 January 1992 (the Treuhandanstalt announces the deal), 23 July 1992 (official signing of the contract), and 4 September 1992 (the European Commission competition authorities clear the deal). Around these dates, Elf earned three-day market-adjusted excess returns of −0.4%, +1.9%, and +0.3% respectively, which represent a total increase in stock market capitalization of $327 million. We estimate the absolute value of the *net* benefit that Elf received from this bribe in net present value terms as $281 million (the difference between the increase in market capitalization and the bribe payment).

Alternatively, we may say that Elf received 7 dollars of benefit per dollar of bribe it paid (the ratio of the increase in market capitalization divided by the bribe payment). The bribe-paying country is France, the bribe-taking country is Germany, and the bribery was at the party level. The year of the contract announcement, 1992, is year 0 for comparing the performance of Elf with its peers before and after the bribery.

Who bribes? Early literature on bribery suggests that it promotes efficiency and economic growth by removing bureaucratic rigidities and "greasing the wheels of bureaucracy" (Leff, 1964; Huntington, 1968), since the most efficient firms, who can afford to pay the largest bribes, will be assigned projects (Lui, 1985; Beck and Maher, 1986). By paying bribes, efficient firms lower the transaction costs they would incur if they instead complied with bureaucratic regulations. We find however, that it is not the most efficient firms that bribe. Firms that win contracts by paying bribes under-perform relative to the universe of firms in their country, industry, and a control sample without reported bribery incidents matched by country, industry, size, and market-to-book ratio for up to three years before and after winning the contract for which the bribe was paid. They have significantly lower return on assets (ROA), asset turnover, operating, and net profit margins, and higher leverage. They also pursue significantly faster sales growth in the years preceding payment of the bribe. Our findings are in line with a recent stream of literature which takes a more negative view of bribery, arguing that governments' "grabbing hand" extracts rents from firms (Shleifer and Vishny, 1993; 1994; 1998; Frye and Shleifer, 1997). In this sense, bribery acts as "sand in the machine" by inducing administrative delays (Ades and Di Tella, 1997 or Kaufmann and Wei, 2000). Garmaise and Liu (2005) show that firms from countries with more corruption have higher cost of capital (betas).[5]

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[5] Corruption can also distort resource allocation by acting as an arbitrary tax, thus limiting private investment (Murphy, Shleifer and Vishny, 1991; Mauro, 1995; Keefer and Knack, 1995; or Mauro, 1997), and foreign direct investment (Wei, 2000 or Lambsdorff, 1999). In addition, it affects the size and composition of public expenditure while creating more opportunities for government officials to collect bribes (Arvind, 2001; Shleifer and Vishny, 1993 or Tanzi and Davoodi, 1997). Bhagwati, Brecher, and Srinivasan (1984) argue that corruption distorts the allocation of entrepreneurial talent if rent-seeking sectors offer the ablest people higher returns than productive sectors do. Johnson, Kauffman, and Shleifer (1997) and Friedman, Johnson, Kauffman, and Zoido-Lobaton (2000), argue that it influences the resource distribution between official and unofficial sectors of the economy.

One explanation for these results could be that the detection of the bribery is not random, either because the least efficient firms are not good enough at concealing the bribery from the authorities or because authorities may choose to target firms with specific characteristics. However, this explanation is not supported in our data. We find that bribing firms do not under-perform their control sample at the time the bribery was detected, which can be up to 20 years after the bribe was paid. Furthermore, as we document in the Appendix, the detection of the bribery appears exogenous to the firms in our sample. In the majority of the cases, the revelation arises from investigation of the foreign government official after a regime change in the bribe-taking country. In other cases, the revelation follows exogenous changes in enforcement, unrelated investigations, action by whistleblowers and competitors or voluntary disclosures. Our results on the performance comparisons suggest therefore, in contrast to the early literature on corruption, that the most efficient firms do not use bribes to reduce transaction costs. The payment of bribes seems to channel contracts towards the least efficient firms.

How much do firms bribe? We measure the size of bribes in four different ways: absolute size, bribe as a proportion of the firm's sales or assets, and bribe as a proportion of the size of the contract (a bribe "tax"). The median bribe in our sample is $2.5 million. We find that abnormal firm performance (relative to the control sample) and the rank of the politicians bribed significantly affect the magnitude of the bribes paid. Firms that pursue higher sales growth, highly indebted firms, and low market-to-book firms pay larger bribes. Asset turnover and past stock returns are negatively related to the size of the bribe. In line with McMillan and Zoido (2004), we find that politicians with greater hold-up power (heads of state, presidents, prime ministers, ministers and members of parliament) receive larger bribes. These bribes may also reflect the fact that high-ranking politicians can deliver contracts to firms with higher probability.

In addition, bribe-paying country characteristics are highly significant in explaining the size of bribe payments. Firms from countries where company directors are less likely to be held accountable by shareholders (countries with lax director liability provisions) appear to pay larger bribes. In contrast, firms from countries that shield their economy from competition, and firms from countries with higher newspaper circulation pay smaller bribes.

Economic, legal, regulatory, and regime characteristics in the bribe-taking countries are also significant in explaining the magnitude of the bribes. If bribery helps "grease the wheels" of government, then firms may feel in greater need to pay bribes in countries where government regulations place larger burdens on firms. Consistent with this argument, we find that across most measures, firms pay larger bribes in countries imposing larger customs burdens. In addition to the motivation for paying bribes, firms must also feel that there is no deterrence to the acceptance of bribes by politicians. We find that firms pay larger bribes to officials from countries with lower scores for civil liberties, stronger military, higher income inequality, and low GDP per capita. In addition, firms might be deterred in paying bribes in the presence of a effective police force in the accepting politician's country. We find that firms pay larger bribes to government officials in countries with unreliable police. Finally, firms may be deterred in paying bribes if there is a high probability their payments are detected. Consistent with McMillan and Zoido (2004), we find that firms pay larger bribes to government officials from countries that do not require public disclosure of politicians sources of income (following the measures constructed by Djankov, La Porta, Lopez de Silanes, and Shleifer, 2010).

What benefits do firms receive from paying bribes, and how are the rents divided between politicians and firms? In this part of the analysis we use three measures of benefits: the *net* benefits that firms receive (difference between the firm's change in market capitalization and the bribe payment), the *gross* benefit per dollar of bribe (ratio of the change in market capitalization divided by the bribe payment), and the proportion of the rents received by government officials (ratio of the bribe payment over the sum of bribe payment and increase in the firm's market capitalization). We find that firm market capitalization increases by 11 dollars, on average, for each dollar of bribe they pay. This figure is in line with estimates made by the U.S Department of Justice (reported in Karpoff, Lee, and Martin (2010)), which also arrived at a roughly similar estimate of 10 dollars of benefit per dollar of bribe. Interestingly, we find that firms that pay bribes in foreign countries, and firms that bribe higher ranking government officials *do not* appear to receive larger benefits. High-ranking politicians are able to capture the rents from large contracts in the form of larger bribes, leaving the firms with benefits no different

than those obtained from smaller contracts. When we examine the determinants of these benefits, we find that firms with better operating performance, receive larger benefits (and correspondingly government officials bribed by these firms receive a smaller share of the rents).

Firms from countries with higher accountability (better accountability of directors, firm disclosure, and shareholder lawsuits), and smaller newspaper circulation receive larger benefits. Furthermore, firms that bribe politicians in poorer countries, countries with limited political rights, high income inequality, unreliable police, limited disclosure of politicians' sources of income, and stronger military also receive larger benefits from these bribes. In contrast, firms that bribe in countries with more regulation (higher customs burdens) receive smaller benefits. Again these findings suggest that bribes are less likely to constitute "grease in the wheels of bureaucracy."

Our paper contributes to the growing literature on corruption by analyzing direct data on large-scale bribery by firms, which has not been analyzed before. Our results are in line with previous studies on the role of the political system, the legal system, and the level of economic development in bribe-taking countries (Ades and Di Tella, 1999; Treisman, 2000; Glaeser and Saks, 2006; Gonzales, Lopez-Cordova, and Valladares, 2007; Mocan, 2008; D'Souza and Kaufmann, 2010), and on the role of publicity in deterring corruption, which has been documented in Brazil (Ferraz and Finan, 2008), Indonesia (Olken, 2007), Uganda (Reinikka and Svensson, 2004; 2005; Bjorkman and Svensson, 2009), Peru (McMillan and Zoido, 2004), Italy (Giglioli, 2008), and worldwide (Brunetti and Weder, 2003; Djankov, La Porta, Lopez de Silanes, and Shleifer, 2010).

We also find that many of our results on large-scale bribery differ from existing evidence derived from self-reported surveys, face-to-face interviews or small-scale field experiments, which tend to be dominated by smaller firms. For example, D'Souza and Kaufmann (2010) analyze worldwide survey data, and conjecture that the absolute magnitude of bribes paid in high-income countries is likely to be higher compared to low-income countries because of the larger size of contracts. We find exactly the opposite. Similarly, while the surveys from small Ugandan firms analyzed by Svensson (2003) and Fisman and Svensson (2007) suggest no

differences in profitability between bribing and non-bribing firms, and a negative relationship between the magnitude of bribe payments and annual firm sales growth, our results suggest exactly the opposite conclusion.[6]

It is possible that firms may not focus on the benefits received from specific contracts but may pay bribes in order to build long-term political connections with politicians. In this sense, our paper is also related to the literature on political connections, which shows that politically connected firms benefit from their connections (Fisman, 2001; Faccio, 2006; Jayachandran, 2006; Claessens, Feijen, and Laeven, 2008), by getting easier access to bank finance (Sapienza, 2004; Khwaja and Mian, 2005; Giannetti and Ongena, 2009; Berkman, Cole and Fu, 2009; or Claessens, Feijen, and Laeven (2008)), government sponsored bailouts (Faccio, Masulis and McConnell, 2006), and award of government contracts (Goldman, Rocholl, and So, 2007). In this context, our study examines in more detail a new channel through which connections affect firm value, namely the award of government contracts or licenses, and quantifies the benefits that firms receive.[7]

Finally, we acknowledge that our paper may suffer from a number of limitations. First, it focuses on large bribery incidents that have attracted international attention. Our robustness tests show that our sample composition mirrors very closely the relative size of stock markets worldwide, especially after adjusting for corruption perceptions in the country. Therefore, the cross-section of firms in our sample appears representative of large scale corruption. However, we do not know whether our results can be generalized to more widespread small-scale corruption. Second, our sample consists of firms that have been detected paying bribes and their detection has been publicly disclosed. To the extent that some firms may have bribed without being detected or they have been detected by authorities but have accepted plea bargains that prevented the bribery from being publicly disclosed, our sample may have missed such firms. *A

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[6] While Fan, Rui, and Zhao (2008) also find that corrupt and politically connected firms in China did not outperform the market before the corruption scandals were exposed, their focus on the disclosure of the corruption makes it difficult to compare their results directly with ours.

[7] A related stream of literature examines the returns to lobbying U.S. politicians (see for example, De Figueiredo and Tiller, 2001; De Figueiredo and Silverman, 2006; Bertrand, Bombardini and Trebbi, 2011; Bombardini and Trebbi, 2009; Bombardini and Trebbi, 2011).

priori the inclusion of firms with undisclosed bribery incidents in the control sample would bias us against significant differences in performance when the bribe was paid in the first part of our analysis. Another concern is that the differences in performance that we find reflect differences in the types of bribing firms that get detected or prosecuted, rather than the types of firms that pay bribes. However, our robustness tests do not indicate differences in performance between bribing and control firms when the bribe was *detected*, suggesting that the detection was not related to performance characteristics. Nevertheless, the possibility remains that some bias is introduced by the non-inclusion of firms that may have paid bribes without being detected in the remaining two parts of our analysis, although we have no priors on how such a bias may affect the magnitude of bribes and the benefits that firms receive from them.

The remaining of the paper is organized as follows. Sections 2-4 describe our data, the methodology, and descriptive statistics respectively. Sections 5-7 report our empirical analysis. Section 8 concludes.

2. Data

We obtain our initial sample by searching official documents that report corruption cases, such as Transparency International's OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), and United Kingdom's Serious Fraud Office website. We add additional corruption cases by conducting an international newspaper search, which allows us to extend our sample period backwards, and include in the sample prominent corruption scandals in Japan, Italy, and France during the early 1990s among others. Our initial sample obtained from these sources consists of 408 corruption cases.

For inclusion in our final sample, we have two additional requirements. First, we must be able to trace the public announcement of the award of the contract for which the bribe was paid, and the exact amount of the bribe corresponding to this contract, which reduces our sample to 175 cases. Following the revelation that the firm has paid a bribe in the past, we track the initial

announcement date of the contract that was secured by paying the bribe. The date of the initial contract (*not* the date that the bribe was paid or that the bribery was revealed) is the event date in our study. We note that in numerous corruption cases firms bribe government officials in order to reduce their tax or customs liability or in order to obtain various permits, and these events are not subject to public announcements. Furthermore, the award of numerous smaller contracts is also not subject to public announcements. Second, firms must have stock return and financial statement information available in DATASTREAM, further reducing our sample size to 166 cases. Our observations are at the firm-bribe level. Therefore, our final sample consists of these 166 observations, involving 107 publicly listed firms from 20 stock markets that have been reported to have bribed government officials in 52 countries worldwide during 1971-2007.[8]

Our sample includes bribery cases that have been investigated by authorities, and have resulted in public confessions, prosecutions, convictions or settlements. We do not require convictions for bribery in all cases for three reasons. First, the zeal with which national authorities investigate and prosecute high ranking government officials varies from country to country. Second, in some cases the bribes were paid at a time that it was not illegal in the firm's country of origin to bribe foreign government officials (for example, in most European countries bribery abroad was made illegal only around 10 years ago). Finally, these investigations often lead to charges not for the bribery itself but for other crimes that are easier to prosecute, such as accounting fraud and money laundering.[9] As stated in the 2007 Annual Report of the OECD Working Group on Bribery, "investigations of the foreign bribery offence … are steadily

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[8] We follow some additional conventions. First, if the firm has secured more than one contract more than three years apart by paying the same bribe, we treat them as separate bribing incidents and prorate the amount of the bribe (or divide equally in the absence of other information). Second, if the bribe was paid on behalf of a consortium of firms bidding for the same contract, we include each firm as a separate observation. Furthermore, we distinguish three possibilities in this case. If the exact amount that each of the firms has paid is provided, this is the amount of the bribe. If only the total is provided but there is a detailed breakdown of the contract size by firm, we use the contribution of each firm to the contract in order to prorate the bribe. If only the total amount of the bribe is provided but we have no other information about the breakdown of the bribe or contract, we divide the amounts equally between the firms participating in the consortium.

[9] Lyon and Maher (2005) show that U.S. firms that reported paying bribes to foreign top government officials in the early 1970s (at a time when such bribery was not illegal) paid higher audit fees, possibly because they were perceived as higher risk clients by their auditors. Fan, Li, and Yang (2010) analyze the same sample and find that the informativeness of accounting earnings increases for the bribing firms following the loss of their relationship network with the corrupt politicians. Riahi-Belkaoui (2003) shows that firms from countries with more corruption report more opaque earnings, on average.

increasing; however, the number of convictions remains low. Many cases have not proceeded beyond the investigation stage. The Working Group would like to see more cases taken forward for prosecution" [p. 8]. The Al Yamanah contracts of BAE in the UK[10] and the case of Siemens in Greece[11] are examples of bribery investigations that did not result in convictions. We include such cases in our sample, because they give us a wider coverage of firms and countries in which to investigate bribery. However, they are not significantly different from the remaining cases in any of their characteristics, and excluding them does not affect any of our results.

Information about the firms, countries, industries, and ranks of government officials involved is reported in the Appendix. Bribe-paying firms in our sample mostly come from developed markets, especially Japan (43 observations), the U.S. (41), France (23), Germany (16), and the United Kingdom (10). These firms bribe government officials both in developed markets – Japan (27), South Korea (13), Singapore (6), the U.S. (5) – as well as in emerging markets – Nigeria (10), Philippines (8), Indonesia (7), Lesotho (7), China (6), South Africa (6). Domestic bribes involve a firm and government officials from the same country, and most of them occur in Japan (26) and South Korea (8). Foreign bribes, involving a firm and a government official from different countries, represent roughly two-thirds of our sample. Not surprisingly, most bribing firms operate in industries that participate in tenders for large public contracts, namely

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[10] In May 2004, the *Guardian* newspaper in the UK alleged that the fighter plane manufacturer BAE Systems had won the $86 billion "Al Yamanah" contracts for supplying jets to Saudi Arabia during 1985-1988, by paying bribes to Saudi officials. In November 2004, the UK's Serious Fraud Office launched an investigation which was dropped two years later ("Timeline: BAE corruption probe", *BBC News*, 26/06/2007 (www.news.bbc.co.uk)). The decision was defended by Prime Minister Tony Blair saying "our relationship with Saudi Arabia is vitally important for our country … that strategic interest comes first." ("Blair defends Saudi probe ruling", *BBC News*, 15/12/2006). In June 2007, the U.S. Department of Justice opened a separate corruption probe into BAE involving this and other deals ("U.S. launches corruption probe into Britain's BAE," *Reuters*, 26/06/2007 (www.reuters.com)), which resulted in BAE pleading guilty to charges of false accounting and a $400 million settlement deal ("BAE pays fines of BP285m over arms deal corruption claims," *The Guardian*, 05/02/2010 (www.guardian.co.uk)).

[11] Investigations in Greece and court proceedings in Germany uncovered that Siemens had paid tens of millions of Euros to Greek government officials in order to secure numerous contracts over a period of 17 years ("Siemens probe widens", *Kathimerini* (English Edition; www.ekathimerini.com), 28/01/2008; "Siemens cash traced", *Kathimerini*, 03/05/2008). In June 2008, Theodoros Tsoukatos, a high-ranking official of the ruling PASOK party, admitted that he had received €420,000 from Siemens in 1999 in secret campaign contributions to the party. Since the very short period that politicians could be held accountable under the Greek statute of limitations had already expired, he was not charged ("First Siemens charges filed", *Kathimerini*, 02/07/2008). Two years later, the former Greek Telecommunications Minister Anastasios Mantelis also admitted that he had received payments totaling €200,000 by the company during 1998-2000. Following this public disclosure, prosecutors have been trying to charge him with money laundering and with violating the code of disclosure of personal property applying to members of the Greek Parliament ("Mantelis faces criminal charges", *Kathimerini*, 28/05/2010).

construction, electric and electronic equipment (mostly defense related), aircraft (mostly defense related), oil and gas. The government officials bribed are heads of state (president or prime minister; 22 observations), government ministers (29), members of parliament or political parties (20), local government governors or mayors (20), military officers (7), judges (3), heads of state-owned agencies (27), and other lower level government officials such as civil servants or members of procurement committees (20). These categories are not mutually exclusive. In a few cases, firms bribe more than one official for the same contract.

Firms that appear most frequently in our sample are BAE Systems (United Kingdom; 6 observations), Elf Aquitaine (France; 6), Siemens (Germany; 6), Alstom (France; 5), Hyundai (South Korea; 4), and Kajima (Japan; 4). We caution against drawing conclusions about the incidence of bribery in different countries from this data because we only analyze prominent bribing cases that have been reported in English-speaking publications.

In Table 1, we list the methods through which the bribery was detected by authorities (we report more detailed information in the Appendix). The detection of the bribery appears exogenous to the firms in our sample. In the majority of the cases, the revelation arises from investigation of the *government official* involved (rather than the firm). In most of these cases, the investigation followed government or regime change, and started in a foreign country, other than the firm's country of origin (58 cases). On other occasions, the revelation arises from unrelated investigations (39), action by whistleblowers (15), voluntary disclosures by the firm (15), exogenous changes in enforcement (14), actions by competitors or other interested parties (9), and investigations by the press (7). Therefore, a priori the detection of bribery in our sample appears unrelated to firm characteristics. We also investigate this issue in more detail later.

One concern with our data is that the selection criteria we impose may make our sample unrepresentative of the general population. For example, countries with high levels of corruption might also have poor reporting standards, implying that we do not capture the extent of bribing activity. We therefore analyze the frequency of observations from different countries in our sample. A priori, we might expect that firms from larger stock markets (because there are more of them and they are able to pay larger bribes) and firms from countries with more corruption

(because firms are more likely to pay bribes and politicians are more likely to be willing to accept bribes) will appear in our sample with higher frequency.

Column 1 of Table 2 reports how many bribe-paying firms from each country are included in our final sample. In column 2 we report the "expected" sample frequency, which is estimated based on the average share of the country's market capitalization relative to worldwide market capitalization during 1980-2007.[12] Column 3 reports p-values for a two-tailed *Chi*-square test which tests whether the actual frequency is significantly different from the expected frequencies. In columns 4-5, we adjust the expected frequencies for corruption perceptions in the country, as measured by Transparency International's Corruption Perceptions Index (CPI).[13] The vast majority of countries appear in our sample with frequencies that do not significantly differ from the expected. Based on the corruption adjusted expected frequencies, the U.S. is slightly under-represented in our sample, which can be explained by stronger anti-corruption enforcement (such as the 1977 Foreign Corrupt Practices Act). South Korea and Switzerland appear slightly over-represented in our sample but the numbers of observations involved are too small to create any bias in our results. Therefore, we conclude that our sample of bribe-paying firms does not appear to suffer from any obvious bias compared to what we might expect based on the size of these stock markets and perceptions of corruption in these countries. Alternatively, to the extent that such biases do exist, they do not appear to differ from similar biases that may be present in all previous literature on corruption.[14]

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[12] We use alternative bases for estimating the expected frequency, namely as the share of worldwide market capitalization during the median year of our sample 1996, during the last year 2007, and a weighted average where we average the share of worldwide market capitalization only over the years that the respective country firms appear in our sample, and the results are qualitatively similar.

[13] We make this crude adjustment in the following way. We divide our sample of bribe-paying countries into quintiles based on market capitalization. Within each quintile, we estimate the average number of expected observations (from column 2) and the average CPI score of the countries that comprise it (we adjust our corruption scores to be 10 minus the CPI score, so that higher scores represent more corruption). Then we estimate the percentage difference between each country's CPI score and its quintile average, in order to obtain a measure of excess corruption perceptions. We multiply this percentage by the quintile's average number of expected observations in order to obtain a measure of the excess number of corruption observations (over and above those expected by stock market size) that we might expect from countries that have more (or less) corruption. Finally, we add (or subtract) this number on (from) the expected frequencies in column 2, in order to obtain a measure of expected sample frequency adjusted for corruption perceptions.

[14] We conduct the same analysis for the bribe-taking countries that appear in our sample, where the expected frequency is estimated based on the country's share of worldwide GDP. We do not report this table in order to

3. Methodology

In order to investigate whether the performance of the sample firms differs from their competitors, we perform three types of comparisons. First, we compare our sample firms with the universe of firms in the market where they are listed. Second, we compare them with the universe of firms in the same market that belong to the same industry.[15] Finally, we also compare our sample of publicly listed bribe-paying firms with a randomly selected control sample of firms without reported bribery incidents, matched by country, industry, firm size, and market-to-book ratio, four years before the award of the contract for which the bribe was paid (year 0). Only the last results are reported in tables for brevity.

We measure operating performance by asset turnover (sales divided by total assets), operating profit margin (operating profit divided by sales), return on assets (ROA, defined as earnings before interest and tax (EBIT) divided by total assets), return on equity (ROE, defined as net income divided by shareholders' equity), annual sales growth, EBIT profit margin (EBIT divided by sales revenue) and net profit margin (net income divided by sales). Since leverage is related to firm risk and hence the cost of capital, we also measure total (and long-term) debt divided respectively by market value of equity, and total assets. We measure firm growth opportunities as the market capitalization divided respectively by book value of shareholders' equity, net income, and sales revenue. Finally, we measure stock price performance by computing annual cumulative abnormal returns (CARs) for bribing firms as the difference between the sum (over 12 months) of the monthly returns for bribing firms and the sum of the monthly returns for the control firms. Buy-and-hold abnormal returns for bribing firms are estimated as the difference between the 12-month buy-and-hold return for the bribing firm

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economize on space. A well-documented finding in numerous studies of corruption is that there is more corruption in poorer countries, for example when firms from developed countries pay bribes in order to secure contracts in less developed countries. Therefore we should expect to find that poorer countries are over-represented in our bribe-taking sample. This is exactly what we find. Countries that appear in our sample with more observations than would be expected from the size of their GDP include (in alphabetical order) Egypt, Greece, India, Indonesia, Nigeria, Philippines, Singapore, South Africa, South Korea, and Taiwan. Most of these are emerging markets. In contrast, as expected, the U.S. and Canada are under-represented in the bribe-taking country sample.

[15] Given that our sample includes firms from many countries, we use the relatively broad ICB codes provided by DataStream, in order to ensure enough firms in each industry.

sample and the buy-and-hold returns for the control firms. Financial statement data, stock returns, exchange rates and GDP deflator are obtained from *CRSP*, *Compustat*, *Datastream*, the *PACAP* database, *Factset*, and *International Financial Statistics* (*IFS*). The bribe amount, the project size, and the change in the firm's market capitalization are converted to constant 2005 U.S. Dollars using exchange rates at the announcement date of the contract for which the bribe was paid and the U.S. GDP deflator.

Country-level data are obtained from numerous sources. We obtain scores for the public availability of the sources of income of members of parliament from Djankov, La Porta, Lopez de Silanes, and Shleifer (2010). We obtain additional variables from *Freedom House* (www.freedomhouse.org), the Polity IV project (www.systemicpeace.org), the World Bank (data.worldbank.org), issues of the *Doing Business Report* (published by the World Bank), and the *Global Competitiveness Report* (published by the World Economic Forum). The list and definitions of these variables appear in Table 3.

To estimate the benefits that firms receive by paying bribes we first estimate the cumulative abnormal returns (CAR) over days [-1,+1] relative to the initial contract announcement day (day *0*) using event study methodology. CARs are estimated as the difference between daily raw returns (with dividends re-invested) and the return of the stock market index of the country where the firm is listed.[16] If there is more than one announcement related to the same contract, for example as information about different steps in the tendering process becomes available, we sum the CARs across all relevant announcements. Finally, we estimate the *gross* benefits that firms receive as the cumulative change in firm market capitalization (CAR × firm market capitalization) summed over all relevant announcements pertaining to the same contract. We estimate the *net* benefits that firms receive as the *gross* benefits minus the amount of the bribe. Our analysis of the division of rents between government officials and bribing firms is based on the share of the rents received by the government officials, which we estimate as the

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[16] We obtain qualitatively similar results using market model residuals CARs. However, we opt to report the market-adjusted returns because the approach offers us the possibility of a larger sample size (we do not need data during the estimation period), and because we want to use a consistent methodology across all markets that avoids the problems of thin trading arising from the widespread incidence of days with zero returns in some markets but not in others. Corrado and Truong (2008) discuss some of these problems in Asian stock market data.

ratio of the bribe payment divided by the sum of the bribe payment plus the firm's *gross* benefits.[17]

Our use of CAR to quantify the benefits of bribery makes the assumption that the market reaction to the announcement of the contract is efficient. To the extent that the market is inefficient, this may not capture the full impact on shareholder value. However, managerial performance and turnover are, to a large extent, evaluated using the evolution of stock prices over the manager's tenure, so it is reasonable to assume that firms will use the likely market reaction as a criterion when deciding whether to pay a bribe or not.

4. Descriptive statistics

Table 4, Panel A, reports comparisons of firm size (total assets, market capitalization, sales, and shareholders' equity) during the year of the bribery between the bribe paying firms in our sample and the universe of firms in the country (and/or industry) where these firms are located. We observe that the bribing firms in our sample are significantly larger across all measures compared to the median of the market where they are traded and their industry. The differences are large and highly statistically significant. This is not surprising, because larger firms are more likely to generate interest in the international press, and are therefore more likely to be included in our sample. These differences motivate our selection of a control sample matched by country, industry, firm size, and market-to-book ratio.

One potential concern in our analysis of firm performance is that detection of bribery by authorities is not random, but related to firm characteristics. For example, all firms might bribe but poorly performing firms are more likely to be detected because they are sloppier in hiding the bribery or authorities may be more likely to target firms based on their performance. We showed in Table 1 and the Appendix that the detection process appears exogenous. To further examine this possibility, in Table 4, Panel B we report performance comparisons between bribing firms and the control sample during the year that the bribery was detected by authorities (the median

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[17] In order to facilitate the interpretation of the reported results on the division of rents, when we estimate the share of the rents received by government officials, we consider the firm's share of the rents to be zero when its *gross* benefits are negative. However, our results are qualitatively similar if we do not perform this adjustment.

detection time in our sample is 3 years following the award of the contract for which the bribe was paid, with a range from zero to 20 years). With the exception of leverage (as a proportion of market value of equity), which is higher compared to the control group, there is no significant pattern in the remaining performance measures. At the time of the detection, there is inconclusive evidence on valuation (higher market-to-book ratio, lower price-to-sales ratio), annual sales growth is lower compared to the control group, debt is higher, and none of the other measures is significant. Consequently, the bribing firms are virtually indistinguishable from the control group in terms of performance. Overall, it does not appear that the detection of bribery is endogenous to firm characteristics.[18]

Table 5 reports descriptive statistics on the bribes and the benefits that firms receive from them. The median bribe in our sample is $2.5 million (all reported figures are in constant 2005 U.S. dollars), representing 0.2% of the firm's total assets or sales, and 2% of the size of the project, with a median project or contract size in our sample of $194 million. Since we have data on project size for only one third of the observations, we caution against drawing too many conclusions based on this variable. Foreign bribes ($6.5 million) and bribes to high-ranking government officials (heads of state, government ministers, members of parliament, political parties; $11.4 million) are significantly larger than domestic bribes ($0.1 million) or bribes to low-rank government officials (local government governors or mayors, military officers, judges, heads of state-owned agencies, and other lower level government officials such as civil servants or members of procurement committees; $1 million). High ranking government officials also extract larger bribes as a proportion of the bribing firm's assets (1.1% compared to 0.1%) and sales (1.2% compared to 0.1%). Foreign bribes and bribes to high-ranking officials also result in the awards of larger contracts.

The median *net* benefit that firms receive by paying bribes (change in market capitalization at the announcement of the contract minus the amount of the bribe) is $0.6 million

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[18] We also note that the conjecture that "everyone bribes" is unlikely, because according to the international survey evidence reported by D'Souza and Kaufmann (2010), in 2006, only between 11% and 26% of OECD firms, which form the vast majority of our sample, reported bribery in developed or developing countries.

(representing 1.7 dollars of benefit per dollar of bribe), which suggests that these benefits are not overwhelmingly large. The benefits do not differ significantly between foreign or domestic bribes, and between different ranks of government officials bribed. Nevertheless, only the benefits received by bribing low ranking government officials are significantly different from zero. Overall, this evidence is in line with McMillan and Zoido (2004) who suggest that politicians with larger hold-up power receive larger bribes and extract a larger surplus from the bribers.

5. Do firms that bribe differ in their performance characteristics from firms that do not?

Table 6 reports operating performance, leverage, growth opportunities, and stock performance comparisons between bribing and control firms for years -3 to +3 relative to the year of award of the contract for which the bribe was paid (year 0). All figures in the table represent the median *abnormal* performance of bribe-paying firms, that is, the difference between the figure for the bribing firm and that of its control firm matched by country, industry, size, and market-to-book ratio. For brevity, we focus our discussion on the comparisons with the control group. In tests that we do not report for brevity, we also perform comparisons with the country or industry medians. These results suggest abnormal performance in the same direction but even *stronger* than the one we report with the control group.

Overall, we find that firms that win contracts by paying bribes under-perform relative to the control sample for up to three years before and after winning the contract for which the bribe was paid. Bribe-paying firms have significantly lower return on assets (ROA), asset turnover, and operating profit margin, both before and after the bribery incident. Across all three measures' medians, their under-performance diminishes following the bribery, although they continue to under-perform. For example, asset turnover for the sample firms is 12.1 percentage points below their peers in year -3 (statistically significant at the 1 percent level) and the underperformance disappears in year +3. Similarly, the sample firm median ROA is lower than the control firms by 1.2 percentage points in year -3 (statistically significant at the 8 percent level) and by 0.3 percentage points in year +3 (also significant at the 8 percent level). Operating profit margin is

0.9 percentage points lower than the peer firms in year -3 (statistically significant at the 8 percent level) but the difference disappears by year +3. Interestingly, bribing firms do pursue significantly faster sales growth in the years preceding the payment of the bribe (by up to 5.1 percentage points in year -1). They under-perform in terms of net profit margin following the payment of the bribe and not before. This evidence suggests that it is their under-performance, in addition to their pursuit of sales growth, which may lead these firms to pay bribes to win contracts.

Bribe-paying firms also have higher leverage compared to the control sample both before and after award of the contract for which the bribe was paid. For example, during year -1, their median total debt-to-market value of equity ratio is 7.8 percentage points higher than the control firms (*p*-value 0.039), and their long-term debt-to-market value of equity 1.4 percentage points higher (*p*-value 0.087). Across all leverage measures in the table, bribe-paying firms have higher leverage compared to the control sample following the award of the contract as well. If anything, the deviation from the capital structure of the control firms appears larger after the award of the contract than before.

Finally, there is inconclusive evidence on whether bribe-paying firms are more highly valued than the control firms. Their median market-to-book ratio, cumulative abnormal stock returns and buy-and-hold stock returns are not significantly different from the control group. Their price-to-sales ratios are lower (in years -1, +2, and +3), and their price-earnings ratios higher (in years -2, and +1). The latter results are likely to be driven however, by the significantly higher sales growth and significantly lower earnings performance at these companies.

Overall, our evidence suggests that bribing firms under-perform relative to non-bribing firms, have higher leverage, but do not appear to trade at higher valuations or to have higher growth opportunities. Our results are in contrast to previous evidence derived from surveys. The surveys of small Ugandan firms analyzed by Svensson (2003) and Fisman and Svensson (2007) suggest no differences in profitability between bribing and non-bribing firms. Our results are

more in line with Fan, Rui, and Zhao (2008), who analyze 23 high-level corruption cases in China. They find that these firms substantially underperformed non-corrupt firms following the disclosure of the scandals in terms of operating performance measures, such as ROA, ROE, ROS, operating profit margin, and market-to-book ratio.

In addition, our results are in contrast to the empirical predictions of the early literature on corruption, which suggested that bribery can promote efficiency by removing bureaucratic rigidities. Central to this argument is that the most efficient firms can afford to pay the largest bribes and they will be awarded more contracts. In contrast, we find that the least efficient firms are the ones who win contracts by paying bribes. In other words, the payment of bribes may channel contracts towards the least efficient firms.

6. What affects the magnitude of the bribes that firms pay?

We next turn our attention to the factors that affect the magnitude of the bribes that firms pay, and examine the impact of the bribing firms' abnormal performance measures, the characteristics of the government officials that received the bribe, bribe-paying and bribe-taking country characteristics. Our measures of bribe size are the logarithm of the bribe payment in constant 2005 U.S. dollars, the ratios of the bribe payment as a proportion of the bribe-paying firm's assets or sales, and the ratio of the bribe payment as a proportion of the contract value (a measure of the "bribe tax" that firms pay).[19] We note that the regressions of the latter measure of bribe size use only a subset of the observations. In all regressions, we report *p*-values based on standard errors corrected for heteroskedasticity that cluster at the country level. We estimate country fixed effects whenever it is feasible to do so. In particular, because of multicollinearity concerns, we cannot estimate country fixed effects in the regressions on country characteristics.

In Table 7, we regress the bribes on the bribing firms' abnormal performance measures. We mostly select as explanatory variables the performance characteristics that were most significant in the previous table. We find that abnormal firm performance (relative to the

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[19] We note that the regressions of the bribe tax use only a subset of the observations. This is because of the lack of contract size for one third of our sample, either because some projects do not have a fixed size (for example, when a company obtains a license that allows it access to a certain market) or because we are unable to identify it.

matched control sample) affects the magnitude of the bribes. Firms that pursue higher sales growth pay significantly larger bribes, both in absolute terms (column 1) and as a proportion of sales (column 2), total assets (column 3) or the size of the contract (column 4). Highly indebted firms and low market-to-book firms also pay larger bribes as a proportion of sales and assets (columns 2-3). All significant coefficients are statistically significant at better than the 1 percent level. Again, these results are in contrast to the empirical predictions of the "greasing the wheels of bureaucracy" motivation behind bribery. This explanation predicts that the most efficient firms can afford to pay the largest bribes. In contrast, we find that the *least* efficient firms are the ones who pay the largest bribes. Our results are also in contrast to Svensson (2003), who finds that the magnitude of the bribe is positively related to current firm profitability among small Ugandan firms, and Fisman and Svensson (2007), who find a negative relationship between the magnitude of bribes and annual sales growth for the same sample of firms.

We next turn our attention to characteristics of the government officials that receive the bribes by examining the impact of the official's rank on the magnitude of the bribes. In Table 8, Panel A, we report median bribes received by different categories of government officials in constant 2005 U.S. dollars. *P*-values in parentheses are for tests of differences between the medians for the category in question and the remaining sample. Heads of state (presidents, prime ministers), ministers and members of parliament receive significantly larger bribes (ranging from $7.6 million to $16.8 million in absolute terms, 1.2% to 1.5% as a proportion of sales, 0.8% to 1.5% as a proportion of assets, and 4.42% as a proportion of the contract size) compared to the remaining sample. In contrast, local government governors or mayors receive significantly smaller bribes compared to the remaining sample ($0.2 million, 0.1%, and 0.1% respectively). In Panel B, we regress the bribe on the characteristics of the government officials that received the bribe. High ranking government officials as a group, receive larger bribes both in absolute terms and as a proportion of the contract's size (columns 1 and 4). In particular, heads of state receive significantly larger bribes across all measures (columns 1-4). This evidence is in line with McMillan and Zoido (2004) who report evidence from a clinical study of the bribing activity of the chief of secret police, Montesinos in Peru, and relate the size of the bribe to the hold-up

power of the recipients. It is also possible that high-ranking officials deliver contracts to firms with a higher probability compared to lower-ranking government officials, and the magnitude of the bribes reflects these probabilities. In the next section, we examine whether the larger bribes paid to high ranking government officials translate into larger benefits for the firms paying them or whether these politicians are simply able to extract larger rents.

Table 9 shows that both bribe-paying and bribe-taking country characteristics are very significant in explaining the absolute magnitude of the bribe payments. In Panel A, we analyze bribe-*paying* country characteristics. The positive and statistically significant coefficients in columns 2-3 suggest that firms from countries where company directors are less likely to be held accountable by shareholders appear to pay larger bribes as a proportion of the firm's sales and assets. In addition, lower newspaper circulation in the country the firm is located is also associated with larger bribe payments (columns 1 and 4). This is not surprising since the evidence reported in the appendix shows that the press has been instrumental in uncovering and investigating many of the cases in our sample. D'Souza and Kaufmann (2010) analyze worldwide survey evidence and find that none of the home country governance indicators were statistically significant in explaining bribery abroad in their study. Our analysis of actual corruption data above also finds that few bribe-paying country factors are significant in explaining the magnitude of bribes.

When we examine the characteristics of the bribe-*taking* countries, we find that economic, legal, regulatory, and regime characteristics are significant in explaining the magnitude of the bribes. To avoid multicollinearity concerns with these institutional country-wide factors, for each set of variables we first report the coefficients from univariate regressions (Panel B.1), and conclude with a final multivariate specification (Panel B.2).

In Panel B.1, the coefficients from the univariate regressions show that firms pay larger bribes to officials from countries with low GDP per capita in columns 1-2 (coefficients −0.6128 and −3.1846; p-values 0.000 and 0.049). Low GDP per capita may proxy for weak institutions, and has been shown to be significant in numerous studies on corruption. In column 1, firms pay larger bribes in countries with a larger proportion of the population in the armed forces

(coefficient 0.3752, *p*-value 0.071). More militaristic societies may be more authoritarian as well, allowing fewer constraints on the behaviour of government officials. In columns 1-3, firms pay larger bribes in countries with larger customs burdens (coefficients 0.2206-1.5142; *p*-values 0.022-0.099).[20] If bribery helps "grease the wheels" of government, then firms may feel in greater need to pay bribes in countries where government regulations place larger burdens. Gonzales, Lopez-Cordova, and Valladares (2007) find that firms in countries with excessive regulation report that they are the target of petty bribe requests by civil servants with a higher frequency. These three factors are the only ones that are statistically significant in the multivariate regressions in Panel B.2. We note the negative relationship between country income and the magnitude of the bribe, because D'Souza and Kaufmann (2010), using worldwide survey evidence, conjecture that the absolute magnitude of bribes paid in high-income countries is likely to be higher compared to low-income countries (because contracts or projects are larger in high income countries). We document exactly the opposite result using actual corruption data.

Djankov, La Porta, Lopez de Silanes, and Shleifer (2010) construct a measure of the disclosure of sources of income for members of parliament worldwide, and find that it is a significant predictor of perceived corruption at the country level. In Panel B.1, column 1, firms pay larger bribes to government officials from countries that do not require public disclosure of politicians' sources of income. The significant negative coefficient −1.6921 (*p*-value 0.066) indicates that more public disclosure of politician's sources of income is associated with smaller bribe payments. Publicizing information about corruption activity of politicians can significantly affect their re-election chances, as evidenced by a study in Brazil (Ferraz and Finan, 2008). Audits followed by publicized results led to reduced levels of corruption in Indonesia (Olken, 2007). Increased publicity also reduced the amount of funds that district government officials siphoned off government grants for schools (Reinikka and Svensson, 2004; 2005), and improved the performance of healthcare providers in Uganda (Bjorkman and Svensson, 2009). In the early 1990s, the media played a pivotal role in publicizing the corruption scandals that led to the

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[20] We use the scores for customs burden in preference to statutory rates, because Johnson, Kaufmann, and Zoido-Lobaton (1998) show that statutory rates may not be good proxies for the actual burden that firms face.

downfall of the post-war political regime in Italy (Giglioli, 2008). McMillan and Zoido (2004) document that in Peru, which has the full set of democratic institutions, Montesinos systematically paid bribes to all the institutions. Bribe prices for the news media were significantly higher than all other bribes paid to judges or politicians, suggesting that the strongest check on the government's power was the news media. In the same spirit, freedom of the press has been shown to be negatively related to the incidence of corruption in a sample of 125 countries around the world (Brunetti and Weder, 2003).

In columns 1-3, firms appear to pay larger bribes in countries with fewer civil liberties (coefficient 0.4257, p-value 0.085), in countries with higher income inequality, proxied by the share of income held by the top 20% of the population (coefficient 0.1207, p-value 0.055), and in countries where the police is not reliable (coefficients 0.2755-1.2528; p-values 0.044-0.093). Income inequality may be correlated with corruption at the highest level, and government officials may have more freedom to engage in corrupt acts where the police is not reliable. D'Souza and Kaufmann (2010) find that increased levels of voice and accountability, press freedom, transparency, rule of law lead to less bribery in procurement contracts.

The remaining variables in the table (political rights, freedom of the press, democracy, literacy, judicial independence, legal rights and legal efficiency) are not statistically significant, although many of these variables are highly correlated with the proxies that are significant at the top of the table. In analysis that we do not report in the tables for brevity, we re-estimate the regressions for bribe-paying countries by including the country characteristics that were significant in the bribe-taking regressions of Panel B, and find that these variables have no explanatory power for bribe-paying countries. Similarly, the country characteristics that were significant for bribe-paying countries have no explanatory power in regressions of bribe-taking countries. Therefore, the set of country characteristics that is significant in explaining the magnitude of the bribes is *different* across bribe-paying and bribe-taking countries, suggesting that the institutional factors that affect the payment of bribes are different from the factors that affect the receipt of bribes. In addition, we have estimated specifications where we include both bribe-paying and bribe-taking country characteristics in one regression. The bribe-taking country

characteristics appear more significant in explaining the magnitude of bribes (and the benefits that firms receive in the next section). However, these specifications suffer from more multicollinearity, and also it is not a priori clear whether the clustering of standard errors should be at the bribe-paying or bribe-taking country level. Consequently, we prefer to report the results from the specifications that separate bribe-paying and bribe-taking country characteristics.[21]

7. What benefits do firms receive by paying bribes? What factors affect these benefits?

In this section, we examine our third question, namely what benefits do firms receive by paying bribes, which factors affect these benefits, and how the rents are shared between government officials and firms.

In Table 5, we reported that the median *net* benefit (change in market capitalization minus the bribe payment) in our sample is $0.6 million (in constant 2005 U.S. dollars). In Table 10, we estimate the benefit that firms receive per dollar of bribe as the coefficient from a regression of the *gross* benefit (change in market capitalization) on the bribe payment. Results from simulations reported by Barth and Kallapur (1996) indicate that, in cross-sectional regressions of levels-based accounting variables, regressing unscaled variables, including a scale factor (such as sales), and reporting White (1980) heteroskedasticity-consistent *p*-values,

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[21] In analysis that we also do not report in the tables for brevity, we find that firms pay larger bribes in absolute terms to government officials from countries with legal systems derived from Islamic law. This dummy variable is positive and statistically significant both on its own, and alongside dummy variables for common and civil law legal systems. The latter are not significant in explaining the magnitude of the bribe. Our classifications of legal systems at the country level follow the *CIA World Factbook* (the countries classified under Islamic law legal system in our sample are Nigeria, Egypt, Iran, Kazakhstan, Saudi Arabia, Iraq, Oman, and Pakistan). Treisman (2000) reports that countries with Protestant populations and former British rule (which proxies for the presence of a common law legal system or enhanced legal effectiveness) are perceived as less corrupt. In addition, we examine the impact of a set of indicators related to the degree of competition and market sophistication in the bribe-taking country on the magnitude of the bribes. The previous literature reports inconclusive evidence on whether competition reduces corruption (Svensson, 2005; D'Souza and Kaufmann, 2010). These variables had no explanatory power either for the magnitude of the bribe (in this section) or for the benefits that firms receive by paying bribes (see the next section) in our data. Furthermore, we find that firms that have been detected paying bribes in the past tend to pay smaller bribes in the future, although this result is based on only 12 observations. Similarly, we find that the more the bribes that firms pay in a single country over time, the smaller the amounts. However, these factors have no impact on the benefits that firms receive from the bribes.

mitigates coefficient bias and heteroskedasticity better than scaling the variables. Following their recommendations, we include total sales as a scale proxy.[22]

In columns 1-2, market capitalization increases by between $10.18 (*p*-value 0.056) and $11.46 (*p*-value 0.049) respectively for each dollar of bribe they pay (for comparison purposes, we do not include the scale proxy in column 1). These estimates are remarkably close to estimates made by the U.S Department of Justice and the Securities and Exchange Commission – based on cases that they have prosecuted – which arrived at a similar average of 10.93 dollars of benefit per dollar of bribe (as reported by Karpoff, Lee, and Martin, 2010). In columns 3-5, firms that pay bribes in foreign countries, firms that bribe higher ranking government officials or both do not appear to receive larger *gross* benefits compared to the remaining firms (they receive less than $10 in *gross* benefits per dollar of bribe they pay). Although firms bribing high-ranking politicians are awarded projects of larger size, they have to pay larger bribes to secure these contracts (see Table 5, and Table 8). It appears, therefore, that high-ranking politicians are able to capture the rents from these contracts in the form of larger bribes, leaving the firms with benefits no different than those obtained from smaller contracts. We examine the division of rents in greater detail in the next table

We note that our methodology may seem to estimate the *ex post* benefits to a firm from paying a bribe, while firms compute their benefits *ex ante* when deciding to pay a bribe, including their *ex ante* assessment that they will win the contract without paying the bribe. For example, suppose without paying a bribe, the firm has an x% probability of winning the contract with expected cash flows E[*CF*]. With the bribe, the probability goes to 100%. The firm will therefore only choose to bribe an amount B if $x \times$ E[*CF*] < E[*CF*] – B or if (1-*x*) E[*CF*] > B. Higher ranking politicians are likely to be able to assure winning the contract even for lower values of *x*. Hence it may seem that our methodology implicitly assumes that without the contract, the probability of winning the contract is zero. That is not correct since we measure market reactions. The market reaction at the announcement date measures the ex ante change in

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[22] Barth and Kallapur (1996) analyze regressions of firm market value on explanatory variables such as book value, and earnings, but their setting is also applicable in our case.

probability that the firm will win the contract. Alternatively, our methodology places an upper bound on the *ex ante* benefits of paying the bribe, regardless of the rank of the politician.

In the remainder of this section, we examine whether the factors that were significant in explaining the magnitude of the bribes in the previous section affect the benefits that firms receive as well. In Table 11, we use three measures of benefits: the *net* benefits that firms receive (difference between the firm's change in market capitalization and the bribe payment), the *gross* benefit per dollar of bribe (ratio of the change in market capitalization divided by the bribe payment), and the proportion of the rents received by government officials (ratio of the bribe payment over the sum of bribe payment and increase in the firm's market capitalization). We regress these measures on the sets of variables that were significant in explaining the magnitude of the bribe from the previous section. In most cases that we report, the results on the benefits received by firms and of the share of the benefits appropriate by government officials are a mirror image of each other. The first two measures of firm benefits can be correlated with firm size. Therefore, we include total firm sales (and the natural logarithm of sales) as an independent scale variable in these regressions. To economize on space, we do not report the univariate regressions, since they are qualitatively similar to the multivariate results reported in the table. We also do not run the regression on all the sets together since there are only 86 observations with non-missing values for all the 37 variables with attendant multicollinearity issues.

In Panel A, firms with high asset turnover and low debt receive larger benefits from paying bribes (columns 1-2). Therefore, although inefficient firms pay larger bribes (Table 7), they do not receive larger benefits in return. Similarly, in column 3, government officials appropriate more rents from firms with poor performance (low asset turnover, low market-to-book ratios, low stock returns, and high sales growth). Again, these results do not support the "greasing the wheels" hypothesis behind bribes.

Firms from bribe-*paying* countries with scores indicating less director liability, worse company information disclosure, and lack of shareholder lawsuits receive smaller benefits (columns 4-5). We conjecture that this result may not be limited to benefits from corruption but may apply more generally: since the stock market reaction forms the basis for measuring the

benefits that firms receive, it may well be that shareholders receive smaller benefits from *any* project in countries where directors are not accountable, and with poor disclosure of firm-specific information. In addition, firms from countries with smaller circulation of newspapers receive higher benefits. This may indicate that press exposure may limit the opportunity of firms to pay bribes.

In Panel B, we examine the impact on benefits of the rank of government officials who receive the bribes. High ranking officials appear to appropriate more than 50% of the rents compared to less that 20% for low ranking officials (column 3). Consequently, firms that pay bribes to high ranking officials do not receive statistically significant benefits from these bribes, because most of the rents are expropriated by the government officials.[23] In contrast, firms that pay bribes to low ranking government officials receive in benefits more than $4 per dollar of bribe they pay (*p*-value 0.033).

Finally, in Panel C, we examine the impact of bribe-taking country characteristics on the benefits. In columns 4 and 5, firms that bribe politicians in bribe-*taking* countries which suppress political rights, and have high income inequality (column 1), have low GDP per capita, strong military, and poor disclosure of politicians' sources of income (column 2), and unreliable police forces (columns 4-5) receive larger net benefits from these bribes. Again these findings suggest that bribes are unlikely to "grease the wheels of bureaucracy." In contrast, firms in countries with more regulation, as proxied by customs burden, receive lower net benefits (columns 4-5), in contrast to what would be expected if bribes helped overcome bureaucratic rigidities. Finally, firms receive smaller net benefits when they pay bribes in countries with lack of civil liberties (columns 1-2), and low literacy (column 2), which suggests that firms may need a minimum of civil liberties in order to capture the benefits from projects. On the other hand, in countries with strong military, government officials appropriate a larger share of the rents (column 3).[24]

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[23] Alternatively, it may be that the higher competition between bidders for large high-profile projects (for which the support of high ranking government officials may be sought) dissipates away the benefits in a form of winner's curse.

[24] We also examine numerous additional specifications that we do not report in tables because the results are largely insignificant. The legal system of the bribe-taking country was not significant in explaining the benefits that firms

8. Conclusions

We analyze a hand-collected sample of 166 prominent bribery cases, involving 107 publicly listed firms from 20 stock markets that have committed bribery of government officials in 52 countries worldwide during 1971-2007. We focus on the initial date of award of the contract for which the bribe was paid (rather than of the revelation of the bribery). In addition, we compare the bribing firms with a matched sample of competitors that have not been involved in bribery incidents. Our data enable us to describe the characteristics of bribe paying firms and the benefits the firms receive from paying bribes. We find that firms that win contracts by paying bribes under-perform relative to a control sample for up to three years before and after winning the contract for which the bribe was paid. Firm performance, the rank of the politicians bribed, as well as bribe-paying and bribe-taking country characteristics affect the magnitude of the bribes, and the benefits that firms receive from them. Many of our results are in contrast to previous survey-based studies.

Our results have numerous policy implications. Our results show that since the worst firms win contracts, society is worse off from these payments, not merely because poorly performing firms may also deliver poor results, but because these firms are less efficient in converting inputs into results. Measures that promote shareholder monitoring of managers (director liability, shareholder lawsuits) may help reduce bribery. Institutions that promote transparency (democracy, freedom of the press, education, disclosure of politician sources of income), institutions that promote enforcement (police reliability), and measures that eliminate regulatory rigidities may also help reduce bribery. We note, however, that our results pertain to the amount individual firms pay as bribes or the benefits they receive from these bribes, and may not generalize to the frequency with which bribery occurs.

Finally, our paper may suffer from two limitations. First, it focuses on large bribery incidents that have attracted international attention. We do not know whether our results can be generalized to more widespread small-scale corruption. Second, our sample consists of firms that

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received from bribes. In addition, we includde additional variables (such as the degree of market competition or market sophistication).

have been detected to pay bribes and their detection has been publicly disclosed. The inclusion of firms with undisclosed bribery incidents in our control sample would make it more difficult to find significant differences in performance. However, to the extent that some bias may be introduced in the remaining parts of our analysis, we have no priors on how it may affect the magnitude of bribes and the benefits that firms receive from them.

Since inefficient firms pay larger bribes but do not receive larger benefits, then why do they pay bribes? Perhaps these firms suffer from agency costs of managerial discretion, and pursue growth at the expense of shareholder wealth maximization, in the same way that firms pursue value-destroying mergers and acquisitions. Perhaps their performance would have been even worse had they not been awarded these projects through bribery. Have the bribe size and benefits changed over time? Has the introduction and enforcement of anti-bribery laws changed these benefits? Do firms that pay bribes over many years learn how to extract larger benefits? How do other bidders (who lost the contract to the bribing firm) perform? We leave these questions for future research.

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Table 1
How the bribery was revealed to authorities

The table reports how the bribery was revealed to authorities (the detailed sources appear in the Appendix). The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the amount of the bribe.

Method of detection	Number of cases	(% of sample)
Investigations of politicians or government officials	58	(35%)
Spin-off from unrelated or third party investigation	39	(23%)
Whistleblowers	15	(9%)
Voluntary disclosure by company	15	(9%)
Exogenous change in enforcement	14	(8%)
Action by competitors or third parties	9	(5%)
Investigations by the press	7	(4%)
Unknown	9	(5%)
Total number of cases	166	

Table 2
Difference between actual and expected sample frequencies for bribe-paying countries

The table analyzes the frequency of observations from different bribe-paying countries in our sample of 166 cases involving publicly listed firms that are reported to have bribed government officials worldwide during 1971-2007. The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the exact amount of the bribe corresponding to this contract. We divide the table into two panels, countries that appear in our sample (for which the actual frequency exceeds zero), and countries that do not appear in our final sample (for which the actual frequency is zero). Column 1 of reports how many bribe-paying firms from each country are included in our final sample. In column 2 we report the "expected" sample frequency, which is estimated based on the share of country market capitalization in worldwide market capitalization. The reported figures are estimated based on the average share of worldwide market capitalization during 1980-2007. Column 3 reports p-values for a two-tailed Chi-square test which tests whether the actual frequency is significantly different from the expected. In columns 4-5, we adjust the expected frequencies for corruption perceptions in the country, as measured by Transparency International's Corruption Perceptions Index (CPI). We make this crude adjustment in the following way. We divide our sample of bribe-paying countries into quintiles based on market capitalization. Within each quintile, we estimate the average number of expected observations (from column 2) and the average CPI score of the countries that comprise it (we adjust our corruption scores to be 10 minus the CPI score, so that higher scores represent more corruption). Then we estimate the percentage difference between each country's CPI score and its quintile average, in order to obtain a measure of excess corruption perceptions. We multiply this percentage by the quintile's average number of expected observations in order to obtain a measure of the excess number of corruption observations (over and above those expected by stock market size) that we might expect from countries that have more (or less) corruption. Finally, we add (or subtract) this number on (from) the expected frequencies in column 2, in order to obtain a measure of expected sample frequency adjusted for corruption perceptions. Significance levels in parentheses (*p*-values) are based on a two-tailed Chi-square test. ***, **, * denote significance at the 1%, 5%, and 10% levels respectively.

Bribe-Paying Country	Actual Freq.	Expected Freq.	p-value (diff. col 1 vs 2)	Expected Freq. (corruption adjusted)	p-value (diff. col 1 vs 4)	Bribe-Paying Country	Actual Freq.	Expected Freq.	p-value (diff. col 1 vs 2)	Expected Freq. (corruption adjusted)	p-value (diff. col 1 vs 4)
	(1)	(2)	(3)	(4)	(5)		(6)	(7)	(8)	(9)	(10)

Countries represented in the sample

Bribe-Paying Country	Actual Freq.	Expected Freq.	p-value (diff. col 1 vs 2)	Expected Freq. (corruption adjusted)	p-value (diff. col 1 vs 4)	Bribe-Paying Country	Actual Freq.	Expected Freq.	p-value (diff. col 1 vs 2)	Expected Freq. (corruption adjusted)	p-value (diff. col 1 vs 4)
Argentina	1	0	(0.317)	0	(0.317)	Philippines	1	0	(0.317)	0	(0.317)
China	1	1	(1.000)	1	(1.000)	South Africa	3	1	(0.314)	2	(0.652)
France	23	5	(0.000)***	18	(0.404)	South Korea	8	1	(0.018)**	2	(0.054)*
Germany	16	6	(0.027)**	12	(0.430)	Spain	1	2	(0.562)	2	(0.562)
Hong Kong	1	3	(0.314)	2	(0.562)	Sweden	2	1	(0.562)	0	(0.156)
India	1	1	(1.000)	1	(1.000)	Switzerland	3	3	(1.000)	0	(0.082)*
Italy	5	3	(0.474)	3	(0.474)	Taiwan	1	2	(0.562)	2	(0.562)
Japan	43	39	(0.611)	46	(0.710)	Thailand	1	0	(0.317)	0	(0.317)
Netherlands	2	3	(0.652)	0	(0.156)	UK	10	14	(0.397)	9	(0.813)
Norway	2	0	(0.156)	0	(0.156)	USA	41	68	(0.002)***	70	(0.001)***

Countries not represented in the sample

Bribe-Paying Country	Actual Freq.	Expected Freq.	p-value (diff. col 1 vs 2)	Expected Freq. (corruption adjusted)	p-value (diff. col 1 vs 4)	Bribe-Paying Country	Actual Freq.	Expected Freq.	p-value (diff. col 1 vs 2)	Expected Freq. (corruption adjusted)	p-value (diff. col 1 vs 4)
Australia	0	2	(0.156)	0	(1.000)	Israel	0	0	(1.000)	0	(1.000)
Austria	0	0	(1.000)	0	(1.000)	Luxembourg	0	0	(1.000)	0	(1.000)
Belgium	0	1	(0.317)	1	(0.317)	Malaysia	0	1	(0.317)	1	(0.317)
Brazil	0	1	(0.317)	2	(0.156)	Mexico	0	1	(0.317)	1	(0.317)
Bulgaria	0	0	(1.000)	0	(1.000)	New Zealand	0	0	(1.000)	0	(1.000)
Canada	0	4	(0.044)**	0	(1.000)	Pakistan	0	0	(1.000)	0	(1.000)
Chile	0	0	(1.000)	0	(1.000)	Peru	0	0	(1.000)	0	(1.000)
Colombia	0	0	(1.000)	0	(1.000)	Poland	0	0	(1.000)	0	(1.000)
Cyprus	0	0	(1.000)	0	(1.000)	Portugal	0	0	(1.000)	0	(1.000)
Czech Republic	0	0	(1.000)	0	(1.000)	Romania	0	0	(1.000)	0	(1.000)
Denmark	0	1	(0.317)	1	(0.317)	Russian Fed	0	0	(1.000)	0	(1.000)
Finland	0	1	(0.317)	1	(0.317)	Singapore	0	1	(0.317)	0	(1.000)
Greece	0	0	(1.000)	0	(1.000)	Slovenia	0	0	(1.000)	0	(1.000)
Hungary	0	0	(1.000)	0	(1.000)	Sri Lanka	0	0	(1.000)	0	(1.000)
Indonesia	0	0	(1.000)	0	(1.000)	Turkey	0	0	(1.000)	0	(1.000)
Ireland	0	0	(1.000)	0	(1.000)	Venezuela	0	0	(1.000)	0	(1.000)

Table 3
Definitions and sources of country-level explanatory variables

The table reports the definitions, the range of values, and the sources of the data for the bribe-paying and the bribe-taking country-level explanatory variables used in the analysis.

Variable	Range of values	Source of data
Public disclosure of politicians' sources of income	From 0 (no disclosure) to 1 (full disclosure)	Djankov, La Porta, Lopez de Silanes, and Shleifer (2010)
Political freedom (civil liberties), Political freedom (political rights), Freedom of the press	Take the values 1 (free), 2 (partially free), and 3 (not free). Therefore, high values represent *Lack of…*	*Freedom House* (www.freedomhouse.org)
Democracy score	From +10 (full democracy) to -10 (full autocracy)	Polity IV project (www.systemicpeace.org)
GDP per capita, Proportion of labour force in the armed forces, Literacy rate of the total adult population, Income share held by the top 20% of the population, Newspapers per 1,000 inhabitants	Numbers or percentages, from low to high	*World Development Indicators*, World Bank (data.worldbank.org)
Director liability, Disclosure index, Ease of shareholder lawsuits	From 1 (highest standards) to 10 (lowest standards). We express the raw scores from the report, which originally range from 0-10, as their inverse multiplied by 10, so that values of 1 of our standardized measure represent the highest and values of 10 represent the lowest standards (since the original raw score appears in the denominator of our standardized measure, in a handful of cases, the original raw scores of 0 are re-assigned the next lowest raw score of 1).	*Doing Business Report*, World Bank
Customs burden, Legal rights, Legal efficiency, Judicial independence, Police reliability, Degree of competition	From 1 (highest standards) to 10 (lowest standards). We express the raw scores from the report as deciles across all countries with scores in the report, with decile 1 representing highest standards and decile 10 representing lowest standards. Therefore, high values represent *Lack of…*	*Global Competitiveness Report*, World Economic Forum

Table 4
Firm characteristics

The table reports firm descriptive statistics for a sample of 166 cases involving publicly listed firms that are reported to have bribed government officials worldwide during 1971-2007. The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the exact amount of the bribe corresponding to this contract. The government officials that receive the bribe are heads of state (president or prime minister), government ministers, members of parliament and local government governors or mayors, military officers, judges, heads of state-owned agencies, and other lower level government officials (for example, civil servants, or members of procurement committees). In Panel A, the figures represent median values for sample firms, country and industry during the year of the bribery. Panel B, reports performance comparisons between bribing firms and a randomly selected control sample of firms without reported bribery incidents, matched by country, industry, firm size, and market-to-book ratio to the bribing firms 4 years before the event for which the bribe was paid. Performance comparisons are for the year the bribe was detected or investigation by authorities was disclosed. The figures in the table represent median values for the abnormal performance of the bribing firms (differences between bribing and control sample firms). Asset turnover is defined as sales revenue divided by total assets. Operating profit margin is operating profit divided by sales revenue. Return on assets (ROA) is earnings before interest and taxes (EBIT) divided by total assets. Return on equity (ROE) is net income divided by shareholders' equity. Sales growth is estimated annually. EBIT profit margin is EBIT divided by sales revenue. Net profit margin is net income divided by sales revenue. The leverage measures are total (and long-term) debt divided respectively by market value of equity, and total assets. The valuation multiples are market capitalization divided respectively by book value of shareholders' equity, net income, and sales revenue. Cumulative abnormal returns (CARs) for bribing firms are estimated as the difference between the sum of the monthly returns for bribing firms and the sum of the monthly returns for the control firms, where returns are summed for 12 months. Buy-and-hold abnormal returns for bribing firms are estimated as the difference between the 12-month buy-and-hold return for the bribing firm sample and the buy-and-hold returns for the sample of control firms. They are converted to constant 2005 U.S. dollars. Financial statement data, stock returns, exchange rates and GDP deflator are obtained from *CRSP*, *Compustat*, *Datastream*, the *PACAP* database, *Factset*, and *International Financial Statistics* (*IFS*). Significance levels in parentheses (*p*-values for tests of medians) are based on the Wilcoxon signed rank test. ***, **, * denote significance at the 1%, 5%, and 10% levels respectively.

Panel A. Firm size

	Total assets (USD 2005, millions)	Market capitalization (USD 2005, millions)	Sales (USD 2005, millions)	Shareholders' Equity (USD 2005, millions)
	(1)	(2)	(3)	(4)
(1) Bribing firms (median)	17,461	5,449	14,169	3,044
(2) Country (median)	262	116	192	85
(3) Industry (median)	271	99	266	105
Differences (*p*-values)				
(4) Bribing firm vs. country median (1 vs. 2)	(0.000)***	(0.000)***	(0.000)***	(0.000)***
(5) Bribing firm vs. industry median (1 vs. 3)	(0.000)***	(0.000)***	(0.000)***	(0.000)***

Panel B. Performance comparisons between bribing and control firms when the bribe was detected

Performance measure	Abnormal performance of bribing firms for the year the bribe was revealed or investigation started	Performance measure	Abnormal performance of bribing firms for the year the bribe was revealed or investigation started
(1)	(2)	(3)	(4)
Asset turnover	-0.030 (0.25)	Total debt / market value of equity	0.050 (0.03)**
Operating profit margin	-0.003 (0.42)	Total debt / total assets	-0.004 (0.94)
ROA	0.001 (0.37)	Long-term debt / market value of equity	0.098 (0.00)***
ROE	0.005 (0.57)	Long-term debt / total assets	0.018 (0.22)
Sales growth	-0.043 (0.08)*	Market-to-book	0.058 (0.10)*
Net profit margin	-0.005 (0.13)	Price-earnings	-1.062 (0.86)
CAR	-0.015 (0.23)	Price-sales	-0.084 (0.03)**
BHAR	-0.019 (0.22)		

Table 5
Bribe characteristics

The table reports descriptive statistics for a sample of 166 cases involving publicly listed firms that are reported to have bribed government officials worldwide during 1971-2007. The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the exact amount of the bribe corresponding to this contract. The bribe amount and the project size are converted into constant 2005 U.S. Dollars (USD) using exchange rates at the announcement date of the contract for which the bribe was paid and the U.S. GDP deflator. The benefits that firms receive by paying bribes are estimated as (1) cumulative abnormal returns (CAR) over days [-1,+1] relative to the initial contract announcement day (day *0*) using event study methodology, summed across all relevant contract announcements (if more than one announcements), (2) the cumulative change in firm market capitalization (CAR × market capitalization) summed over all relevant announcements (*gross* benefits), (3) *gross* benefits divided by the amount of the bribe, and (4) *gross* benefits minus the amount of the bribe (*net* benefits). CARs are estimated as the difference between daily raw returns (with dividends re-invested) and the return of the stock market index of the country where the firm is listed. Total sales and assets for the firms involved are for the last year before the initial announcement of the contract. Financial statement data, stock returns, exchange rates and GDP deflator are obtained from *CRSP*, *Compustat*, *Datastream*, the *PACAP* database, *Factset*, and *International Financial Statistics* (*IFS*). Foreign bribes are those involving a firm and a government official from different countries. High rank government officials are heads of state (president or prime minister), government ministers, and members of parliament. Low rank government officials are local government governors or mayors, military officers, judges, heads of state-owned agencies, and other lower level government officials (for example, civil servants or members of procurement committees). The figures in the table are median values. Significance levels in parentheses (*p*-values for tests of medians and differences in medians) are based on the Wilcoxon signed rank test, and the Mann-Whitney test. ***, **, * denote significance at the 1%, 5%, and 10% levels respectively.

	Bribe characteristics				Project characteristics	Benefits			
	Bribe (USD, 2005)	Bribe / Assets	Bribe / Sales	Bribe / Project size	Project size (USD, 2005)	CAR [-1,+1] All announcements	*Gross* Benefit: Cumulative Change in Market Cap (USD, 2005)	*Gross* Benefit / Bribe	*Net* Benefit: *Gross* Benefit - Bribe
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A. All bribes	$2,535,584	0.22%	0.16%	1.94%	$194,000,000	0.64%	$7,824,766	1.73	$625,594
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.068)*	(0.025)**	(0.016)**	(0.213)
	[N=155]	[N=114]	[N=113]	[N=54]	[N=55]	[N=148]	[N=133]	[N=133]	[N=133]
B. Classification by location									
Foreign bribes	$6,500,764	0.45%	0.41%	1.32%	$203,000,000	0.76%	$6,825,299	1.41	$97,168
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.159)	(0.064)*	(0.055)*	(0.390)
	[N=112]	[N=88]	[N=87]	[N=50]	[N=51]	[N=112]	[N=97]	[N=97]	[N=97]
Domestic bribes	$193,588	0.01%	0.01%	3.73%	$48,046,683	0.61%	$26,852,125	30.41	$24,338,938
	(0.000)***	(0.000)***	(0.000)***	(0.100)*	(0.100)*	(0.218)	(0.179)	(0.212)	(0.275)
	[N=43]	[N=26]	[N=26]	[N=4]	[N=4]	[N=36]	[N=36]	[N=36]	[N=36]
Difference (p-value)	(0.000)***	(0.000)***	(0.000)***	(0.298)	(0.263)	(0.966)	(0.982)	(0.298)	(0.687)
C. Classification by rank of government official bribed									
High rank	$11,429,071	1.06%	1.23%	4.42%	$577,000,000	0.35%	$11,716,230	0.81	-$3,309,096
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.486)	(0.195)	(0.240)	(0.818)
	[N=57]	[N=41]	[N=40]	[N=19]	[N=19]	[N=54]	[N=48]	[N=48]	[N=48]
Low rank	$1,063,049	0.08%	0.10%	1.22%	$132,000,000	0.73%	$5,337,543	4.19	$3,948,873
	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.000)***	(0.065)*	(0.070)*	(0.033)**	(0.168)
	[N=98]	[N=73]	[N=73]	[N=35]	[N=36]	[N=94]	[N=85]	[N=85]	[N=85]
Difference (p-value)	(0.000)***	(0.000)***	(0.000)***	(0.261)	(0.001)***	(0.733)	(0.916)	(0.343)	(0.435)

Table 6
Performance comparisons between bribing and control firms when the bribe was paid

The table reports performance comparisons between a sample of 166 cases involving publicly listed firms that are reported to have bribed government officials worldwide during 1971-2007 and a randomly selected control sample of firms without reported bribery incidents, matched by country, industry, firm size, and market-to-book ratio to the bribing firms 4 years before the event for which the bribe was paid (year 0).. The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the exact amount of the bribe corresponding to this contract. The government officials that receive the bribe are heads of state (president or prime minister), government ministers, members of parliament and local government governors or mayors, military officers, judges, heads of state-owned agencies, and other lower level government officials (for example, civil servants or members of procurement committees). The figures in the table represent median values for the abnormal performance of the bribing firms (differences between bribing and control sample firms). Asset turnover is defined as sales revenue divided by total assets. Operating profit margin is operating profit divided by sales revenue. Return on assets (ROA) is earnings before interest and taxes (EBIT) divided by total assets. Return on equity (ROE) is net income divided by shareholders' equity. Sales growth is estimated annually. EBIT profit margin is EBIT divided by sales revenue. Net profit margin is net income divided by sales revenue. The leverage measures are total (and long-term) debt divided respectively by market value of equity and total assets. The valuation multiples are market capitalization divided respectively by book value of shareholders' equity, net income, and sales revenue. Cumulative abnormal returns (CARs) for bribing firms are estimated as the difference between the sum of the monthly returns for bribing firms and the sum of the monthly returns for the control firms, where returns are summed for 12 months. Buy-and-hold abnormal returns for bribing firms are estimated as the difference between the 12-month buy-and-hold return for the bribing firm sample and the buy-and-hold returns for the sample of control firms. Financial statement data, stock returns, exchange rates and GDP deflator are obtained from *CRSP*, *Compustat*, *Datastream*, the *PACAP* database, *Factset*, and *International Financial Statistics* (*IFS*). Significance levels in parentheses (*p*-values for tests of medians) are based on the Wilcoxon signed rank test. ***, **, * denote significance at the 1%, 5%, and 10% levels respectively.

	Year (-3)	Year (-2)	Year (-1)	Year (0)	Year (+1)	Year (+2)	Year (+3)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Operating performance							
Asset turnover	-0.121 (0.00)***	-0.118 (0.00)***	-0.097 (0.02)**	-0.142 (0.00)***	-0.106 (0.01)**	-0.066 (0.01)***	-0.024 (0.11)
Operating profit margin	-0.009 (0.08)*	-0.009 (0.04)**	-0.005 (0.16)	-0.004 (0.11)	-0.008 (0.06)*	-0.000 (0.56)	-0.003 (0.33)
ROA	-0.012 (0.08)*	-0.015 (0.02)**	-0.009 (0.03)**	-0.007 (0.01)**	-0.007 (0.04)**	-0.006 (0.08)*	-0.003 (0.08)*
ROE	0.004 (0.99)	-0.013 (0.41)	0.003 (0.84)	-0.005 (0.52)	-0.010 (0.48)	-0.001 (0.57)	0.003 (0.83)
Sales growth		0.027 (0.07)*	0.051 (0.00)***	0.032 (0.20)	0.009 (0.64)	0.023 (0.23)	0.014 (0.59)
Net profit margin	-0.000 (0.87)	-0.005 (0.25)	-0.001 (0.51)	-0.002 (0.37)	-0.004 (0.22)	-0.012 (0.03)**	-0.006 (0.06)*
B. Leverage							
Total debt / market value of equity	-0.011 (0.34)	0.014 (0.16)	0.078 (0.04)**	0.072 (0.05)*	0.04 (0.02)**	0.121 (0.00)***	0.083 (0.00)***
Total debt / total assets	-0.001 (0.92)	-0.010 (0.93)	0.003 (0.70)	0.002 (0.56)	-0.005 (0.49)	0.015 (0.04)**	0.029 (0.07)*
Long-term debt / market value of equity	0.013 (0.31)	-0.002 (0.33)	0.014 (0.09)*	0.000 (0.27)	0.065 (0.04)**	0.056 (0.02)**	0.077 (0.03)**
Long-term debt / total assets	0.001 (0.78)	-0.012 (0.73)	-0.005 (0.70)	-0.003 (0.95)	-0.001 (0.58)	0.012 (0.07)*	0.032 (0.06)*
C. Valuation multiples							
Market-to-book	0.027 (0.70)	-0.048 (0.54)	0.002 (0.96)	0.143 (0.21)	0.102 (0.35)	0.089 (0.35)	0.063 (0.24)
Price-earnings	3.782 (0.11)	2.33 (0.03)**	1.317 (0.33)	1.178 (0.18)	4.32 (0.01)**	1.683 (0.62)	0.992 (0.39)
Price-sales	0.021 (0.74)	0.011 (0.41)	-0.040 (0.05)**	-0.043 (0.35)	-0.003 (0.23)	-0.023 (0.02)**	-0.041 (0.01)**
D. Stock performance							
CAR	-0.029 (0.11)	0.005 (0.75)	-0.015 (0.82)	0.016 (0.57)	0.003 (0.96)	-0.046 (0.04)**	0.068 (0.01)***
BHAR	-0.031 (0.14)	-0.008 (0.54)	-0.003 (0.98)	0.022 (0.43)	-0.009 (0.91)	-0.026 (0.05)*	0.025 (0.05)*

Table 7
Bribe size and paying firm abnormal performance

The table reports ordinary least squares regressions of the size of the bribe on bribing firm performance characteristics for a sample of 166 cases involving publicly listed firms that are reported to have bribed government officials worldwide during 1971-2007. The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the exact amount of the bribe corresponding to this contract. The bribe amounts are converted into constant 2005 U.S. Dollars (USD) using exchange rates at the announcement date of the contract for which the bribe was paid and the U.S. GDP deflator. All observations represent the abnormal performance of the bribing firms (difference between bribing and control sample firms). Asset turnover is defined as sales revenue divided by total assets. Return on assets (ROA) is earnings before interest and taxes (EBIT) divided by total assets. Sales growth is estimated annually. The leverage measure is total debt divided by book value of equity. The valuation multiples are market capitalization divided by book value of shareholders' equity. Cumulative abnormal returns (CARs) for bribing firms are estimated as the difference between the sum of the monthly returns for bribing firms and the sum of the monthly returns for the control firms, where returns are summed for 12 months. All figures are for the last year before the initial contract announcement date. Financial statement data, stock returns, exchange rates and GDP deflator are obtained from *CRSP*, *Compustat*, *Datastream*, the *PACAP* database, *Factset*, and *International Financial Statistics* (*IFS*). Intercepts and country fixed effects whenever applicable are estimated but not reported. Significance levels in parentheses (*p*-values) are based on White (1980) heteroskedasticity consistent standard errors clustered at the country level and adjusted for degrees of freedom. ***, **, * denote significance at the 1%, 5%, and 10% levels respectively.

	Log(Bribe)	Bribe/Sales	Bribe/Assets	Bribe/Project
	(1)	(2)	(3)	(4)
Asset turnover $_{year(-1)}$	-0.590 (0.145)	-0.079 (0.964)	1.003 (0.568)	-2.4300 (0.437)
Total debt/book equity $_{year(-1)}$	-0.005 (0.329)	0.250 (0.009)***	0.530 (0.000)***	0.0809 (0.558)
ROA $_{year(-1)}$	-1.205 (0.641)	-30.775 (0.300)	-61.68 (0.200)	13.3240 (0.495)
Sales growth $_{year(-1)}$	0.574 (0.000)***	39.700 (0.000)***	99.500 (0.000)***	12.090 (0.006)***
Market-to-book $_{year(-1)}$	-0.005 (0.900)	-2.03 (0.004)***	-4.25 (0.000)***	-2.2595 (0.243)
CAR $_{year(-1)}$	-0.622 (0.348)	-2.448 (0.238)	-7.223 (0.174)	-2.4605 (0.397)
Country fixed effects	Yes	Yes	Yes	Yes
Adjusted R^2	0.34	0.72	0.91	-0.14
Observations	106	96	96	38

Table 8
Bribe size and receiving government official proxies

The table reports univariate results in constant 2005 U.S. dollars (Panel A), and ordinary least squares regressions (Panel B) of the size of the bribe on the rank of government officials that received the bribe for a sample of 166 cases involving publicly listed firms that are reported to have bribed government officials worldwide during 1971-2007. The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the exact amount of the bribe corresponding to this contract. The government officials that receive the bribe are high ranking officials (heads of state – president or prime minister –, government ministers, members of parliament), local government governors or mayors, military officers, judges, heads of state-owned agencies, and other lower level government officials (for example, civil servants or members of procurement committees). The bribe amounts are converted into constant 2005 U.S. Dollars (USD) using exchange rates at the announcement date of the contract for which the bribe was paid and the U.S. GDP deflator. Intercepts are estimated but not reported. Financial statement data, exchange rates and GDP deflator are obtained from *CRSP*, *Compustat*, *Datastream*, the *PACAP* database, *Factset*, and *International Financial Statistics* (*IFS*). In Panel A, significance levels are for tests of differences in medians between the respective category and the remaining sample. Significance levels in parentheses (*p*-values) are based on the Mann-Whitney test for differences in medians (Panel A), and White (1980) heteroskedasticity consistent standard errors clustered at the bribe-taking country level and adjusted for degrees of freedom (Panel B and C). Intercepts and country fixed effects whenever applicable are estimated but not reported. ***, **, * denote significance at the 1%, 5%, and 10% levels respectively.

Panel A. Univariate analysis (medians)

	Bribe (USD 2005)	Bribe/Sales	Bribe/Assets	Bribe/Project
	(1)	(2)	(3)	(4)
A. High rank				
Head of State [N=20]	$16,765,467 (0.000)***	1.44% (0.007)***	1.48% (0.008)***	4.71% (0.199)
Minister [N=29]	$7,627,935 (0.051)*	1.19% (0.063)*	0.75% (0.033)**	2.01% (0.959)
Member of Parliament [N=20]	$13,774,211 (0.001)***	1.50% (0.011)**	1.27% (0.007)***	4.42% (0.293)
High rank median	**$11,429,071 (0.000)***	**1.06% (0.000)***	**1.23% (0.000)***	**4.42% (0.000)***
B. Low rank				
Military Officer [N=7]	$5,315,002 (0.734)	0.29% (0.910)	0.34% (0.915)	0.44% (0.125)
Judge [N=3]	$5,002,708 (0.851)	3.15% (0.939)	1.69% (0.871)	
Head of State Agency [N=26]	$502,104 (0.108)	0.10% (0.456)	0.06% (0.756)	0.38% (0.121)
Governor/Mayor [N=20]	$194,148 (0.000)***	0.01% (0.000)***	0.01% (0.000)***	2.96% (0.428)
Low rank median	**$1,063,049 (0.000)***	**0.08% (0.000)***	**0.10% (0.000)***	**1.22% (0.000)***
Differences (High rank vs Low rank p-values)	(0.000)***	(0.000)***	(0.000)***	(0.261)

Panel B. Ordinary least squares regressions

	Log(Bribe)	Bribe/Sales	Bribe/Assets	Bribe/Project
	(1)	(2)	(3)	(4)
High vs. low government official rank				
High rank politician	1.218 (0.043)**	20.647 (0.193)	19.524 (0.191)	6.709 (0.065)*
Country fixed effects	Yes	Yes	Yes	Yes
Adjusted R^2	0.45	0.63	0.93	0.90
Observations	155	113	114	54
Specific government official rank				
Head of State	2.692 (0.089)*	54.023 (0.100)*	50.823 (0.095)*	10.347 (0.000)***
Minister	0.983 (0.273)	-0.148 (0.989)	-1.251 (0.892)	-3.9228 (0.000)***
Member of Parliament	1.500 (0.009)***	8.529 (0.368)	6.403 (0.176)	-2.2872 (0.000)***
Governor/Mayor	0.271 (0.742)	2.454 (0.813)	0.193 (0.981)	7.5250 (0.001)***
Military Officer	0.603 (0.604)	15.411 (0.177)	12.396 (0.133)	-2.7186 (0.007)***
Judge	-2.558 (0.003)***	17.281 (0.195)	14.076 (0.225)	
Head of State Agency	-0.587 (0.687)	16.694 (0.263)	11.229 (0.177)	4.0871 (0.000)***
Other Official	-0.304 (0.790)	6.009 (0.372)	4.441 (0.342)	-0.4625 (0.657)
Unidentified Official	1.418 (0.269)	10.861 (0.350)	9.546 (0.330)	-0.3544 (0.674)
Country fixed effects	Yes	Yes	Yes	Yes
Adjusted R^2	0.47	0.65	0.93	0.92
Observations	155	113	114	54

Table 9
Bribe size and country characteristics

The table reports ordinary least squares regressions of the size of the bribe on bribe-paying and bribe-taking country-level characteristics for a sample of 166 cases involving publicly listed firms that are reported to have bribed government officials worldwide during 1971-2007. Panels A and C report results of multivariate regressions. Panel B reports results of univariate regressions where only the explanatory variable of interest is included. The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the exact amount of the bribe corresponding to this contract. The bribe amounts are converted into constant 2005 U.S. Dollars (USD) using exchange rates at the announcement date of the contract for which the bribe was paid and the U.S. GDP deflator. Financial statement data, stock returns, exchange rates and GDP deflator are obtained from *CRSP*, *Compustat*, *Datastream*, the *PACAP* database, *Factset*, and *International Financial Statistics* (*IFS*). Definitions and sources of data of the country characteristics appear in Table 3. Intercepts are estimated but not reported. Significance levels in parentheses (*p*-values) are based on White (1980) heteroskedasticity consistent standard errors clustered at the country level and adjusted for degrees of freedom. ***, **, * denote significance at the 1%, 5%, and 10% levels respectively.

Panel A. Bribe-paying firm country proxies (factors for doing business globally and competitiveness)

	Log(Bribe)	Bribe/Sales	Bribe/Assets	Bribe/Project
	(1)	(2)	(3)	(4)
(Lack of) Director Liability	-0.0271 (0.811)	1.8273 (0.096)*	5.5831 (0.000)***	0.0894 (0.652)
(Lack of) Disclosure	0.0288 (0.878)	-3.5086 (0.224)	-2.5532 (0.333)	0.2652 (0.293)
(Lack of) Shareholder Lawsuits	0.7898 (0.527)	-5.7558 (0.566)	-12.1293 (0.183)	-2.8299 (0.187)
(Lack of) Legal Efficiency	0.1657 (0.768)	-6.3104 (0.376)	-0.0051 (0.999)	0.8046 (0.340)
(Lack of) Firm Ethics	-0.2007 (0.647)	0.4865 (0.929)	-7.2346 (0.128)	-0.7240 (0.539)
(Lack of) Competition	-0.1361 (0.746)	5.5775 (0.336)	3.8163 (0.391)	-1.8423 (0.007)***
Daily newspapers	-0.6629 (0.000)***	-1.1603 (0.536)	-1.7555 (0.389)	-1.4324 (0.000)***
Country fixed effects	No	No	No	No
Adjusted R^2	0.14	-0.05	-0.04	-0.05
Observations	139	103	104	53

Panel B. Bribe-taking country proxies

	Log(Bribe)	Bribe/Sales	Bribe/Assets	Bribe/Project
	(1)	(2)	(3)	(4)
B.1. Coefficients of univariate regressions				
GDP per capita (USD 2005)	-0.6128 (0.000)***	-3.1846 (0.049)**	-5.1418 (0.148)	-0.0459 (0.935)
Armed Forces (%)	0.3752 (0.071)*	-2.8332 (0.128)	-4.8895 (0.228)	-0.6140 (0.456)
Customs Burden	0.2206 (0.099)*	1.5142 (0.027)**	1.4384 (0.022)**	0.3251 (0.425)
Public Disclosure of Politicians' Income	-1.6921 (0.066)*	-6.0263 (0.497)	-17.3301 (0.370)	1.2537 (0.641)
Income Inequality	0.1207 (0.055)*	0.2733 (0.294)	0.3760 (0.392)	-0.0743 (0.557)
(Lack of) Police Reliability	0.2755 (0.093)*	1.2528 (0.045)**	1.1490 (0.044)**	0.0399 (0.936)
(Lack of) Civil Liberties	0.4257 (0.085)*	1.9933 (0.197)	2.5106 (0.238)	-0.4494 (0.359)
(Lack of) Political Rights	0.3263 (0.152)	0.9202 (0.497)	0.5377 (0.733)	-0.4650 (0.289)
(Lack of) Press Freedom	0.9332 (0.106)	9.3683 (0.166)	18.1776 (0.246)	-0.7400 (0.492)
Democracy score	-0.0864 (0.212)	-0.4574 (0.281)	-0.6376 (0.262)	0.1678 (0.249)
Literacy	-2.097 (0.245)	-63.4486 (0.188)	-132.7920 (0.266)	-1.0237 (0.876)
(Lack of) Legal Efficiency	0.1727 (0.385)	0.5111 (0.446)	0.4037 (0.521)	-0.0948 (0.829)
B.2. Coefficients of multivariate regressions				
GDP per capita (USD 2005)	-0.548 (0.032)**	-5.3897 (0.067)*	-5.2906 (0.055)*	-0.6518 (0.796)
Armed Forces (%)	0.5851 (0.047)**	-0.8919 (0.683)	-1.1827 (0.571)	-2.0682 (0.391)
Customs Burden	0.8162 (0.007)***	3.9395 (0.165)	3.3311 (0.21)	1.8728 (0.407)
Public Disclosure of Politicians' Income	0.1093 (0.878)	12.1847 (0.119)	10.3828 (0.158)	-4.4688 (0.456)
Income Inequality	0.0603 (0.355)	-0.2922 (0.453)	-0.2424 (0.516)	-0.3543 (0.459)
(Lack of) Police Reliability	-0.4837 (0.16)	-2.9543 (0.216)	-2.5836 (0.252)	-0.3126 (0.921)
(Lack of) Civil Liberties	0.0403 (0.937)	6.1161 (0.169)	4.5949 (0.201)	1.1036 (0.517)
(Lack of) Political Rights	-0.0899 (0.886)	-5.4262 (0.345)	-4.5168 (0.372)	-5.2509 (0.294)
(Lack of) Press Freedom	0.4138 (0.698)	5.7014 (0.308)	4.8807 (0.319)	7.0665 (0.281)
Democracy score	0.0285 (0.778)	-0.2656 (0.786)	-0.3105 (0.753)	-0.5668 (0.576)
Literacy	0.3645 (0.886)	-4.5657 (0.864)	-4.5858 (0.857)	11.5319 (0.454)
(Lack of) Legal Efficiency	-0.1398 (0.555)	-2.0131 (0.209)	-2.1502 (0.18)	-1.6459 (0.311)
Country fixed effects	No	No	No	No
Adjusted R^2	0.30	-0.05	-0.05	-0.17
Observations	114	81	82	47

Table 10
What benefits do firms receive by paying bribes?

The table reports ordinary least squares regressions of the gross benefit that firms receive by paying a bribe on the magnitude of the bribe for a sample of 166 cases involving publicly listed firms that that are reported to have bribed government officials worldwide during 1971-2007. The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the exact amount of the bribe corresponding to this contract. The government officials that receive the bribe are heads of state (president or prime minister), government ministers, members of parliament and local government governors or mayors, military officers, judges, heads of state-owned agencies, and other lower level government officials (for example civil servants or members of procurement committees). The gross benefits that firms receive by paying bribes are estimated as the cumulative change in firm market capitalization (CAR over days [-1,+1] relative to the initial contract announcement times firm market capitalization) summed over all relevant announcements. CARs over days [-1,+1] relative to the initial contract announcement day (day *0*) using event study methodology are estimated as the difference between daily raw returns (with dividends re-invested) and the return of the stock market index of the country where the firm is listed. The bribe amounts and firm total sales revenues are converted into constant 2005 U.S. Dollars (USD) using exchange rates at the announcement date of the contract for which the bribe was paid and the U.S. GDP deflator. Foreign bribes are those involving a firm and a government official from different countries. High rank government officials are heads of state (president or prime minister), government ministers, and members of parliament. Exchange rates and GDP deflators are obtained from *International Financial Statistics* (*IFS*). Intercepts and country fixed effects are estimated but not reported. Significance levels in parentheses (*p*-values) are based on White (1980) heteroskedasticity consistent standard errors clustered at the country level and adjusted for degrees of freedom. ***, **, * denote significance at the 1%, 5%, and 10% levels respectively.

	All Bribes	All Bribes	Foreign Bribes	Bribes to High-Rank Politicians	Foreign Bribes to High-Rank Politicians
	Gross benefit (USD 2005)	Gross benefit (USD 2005)	Gross benefit (USD 2005)	Gross benefit (USD 2005)	Gross benefit (USD 2005)
	(1)	(2)	(3)	(4)	(5)
Bribe (USD 2005)	10.1840 (0.056)*	11.4613 (0.049)**	9.3131 (0.007)***	4.4145 (0.382)	4.1854 (0.479)
Sales (USD 2005)		16.2097 (0.361)	17.7845 (0.415)	16.6537 (0.328)	20.6807 (0.319)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	-0.32	-0.36	-0.38	-0.15	-0.28
Observations	133	115	86	42	34

Table 11
What explains the net benefits that firms receive by paying bribes and the division of rents?

The table reports ordinary least squares regressions of the benefit that firms receive from paying the bribe, and of the division of rents on bribing firm performance characteristics, rank of government officials that received the bribe, and country-level characteristics for a sample of 166 cases involving publicly listed firms that that are reported to have bribed government officials worldwide during 1971-2007. The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the exact amount of the bribe corresponding to this contract. The government officials that receive the bribe are heads of state (president or prime minister), government ministers, members of parliament and local government governors or mayors, military officers, judges, heads of state-owned agencies, and other lower level government officials (for example, civil servants or members of procurement committees). The *net* benefits that firms receive by paying bribes are estimated as the *gross* benefits (cumulative change in firm market capitalization (CAR over days [-1,+1] relative to the initial contract announcement times firm market capitalization) summed over all relevant announcements) minus the amount of the bribe. CARs over days [-1,+1] relative to the initial contract announcement day (day *0*) using event study methodology are estimated as the difference between daily raw returns (with dividends re-invested) and the return of the stock market index of the country where the firm is listed. The share of the rents received by the government officials is the ratio of the bribe payment divided by the sum of the bribe payment plus the largest of the change in firm market capitalization or zero. The bribe amounts and firm total sales revenues are converted into constant 2005 U.S. Dollars (USD) using exchange rates at the announcement date of the contract for which the bribe was paid and the U.S. GDP deflator. All firm performance observations represent the abnormal performance of the bribing firms (difference between bribing and control sample firms). Asset turnover is defined as sales revenue divided by total assets. Return on assets (ROA) is earnings before interest and taxes (EBIT) divided by total assets. Sales growth is estimated annually. The leverage measure is total debt divided by book value of equity. The valuation multiples are market capitalization divided by book value of shareholders' equity. Cumulative abnormal returns (CARs) for bribing firms are estimated as the difference between the sum of the monthly returns for bribing firms and the sum of the monthly returns for the control firms, where returns are summed for 12 months. All figures are for the last year before the initial contract announcement date. Financial statement data, stock returns, exchange rates and GDP deflator are obtained from *CRSP*, *Compustat*, *Datastream*, the *PACAP* database, *Factset*, and *International Financial Statistics* (*IFS*). Definitions and sources of data of the country characteristics appear in Table 3.Intercepts are estimated but not reported. Significance levels in parentheses (*p*-values) are based on White (1980) heteroskedasticity consistent standard errors clustered at the country level and adjusted for degrees of freedom. ***, **, * denote significance at the 1%, 5%, and 10% levels respectively.

Panel A. Firm and bribe-paying country characteristics

	Net benefit to firm (USD 2005)	*Gross* benefit to firm / Bribe	Share of rents received by government official	*Net* benefit to firm (USD 2005)	*Gross* benefit to firm / Bribe	Share of rents received by government official
	(1)	(2)	(3)	(4)	(5)	(6)
Bribe-paying firm abnormal performance						
Asset turnover	4.5200 (0.019)**	1455.2 (0.301)	-0.3125 (0.021)**			
Total debt / book equity	-0.0371 (0.440)	-47.61 (0.001)***	-0.0025 (0.298)			
ROA	11.6000 (0.389)	1383.7 (0.801)	-0.2058 (0.819)			
Sales growth	-0.6210 (0.271)	-432.04 (0.493)	0.4114 (0.100)*			
Market-to-book	0.1152 (0.809)	92.930 (0.605)	-0.0466 (0.069)*			
Annual CAR	0.8602 (0.855)	-1304.2 (0.447)	-0.2712 (0.008)***			
Bribe-paying firm country proxies						
(Lack of) Director Liability				-0.6074 (0.048)**	-901.3 (0.000)***	-0.0158 (0.109)
(Lack of) Firm Disclosure				-2.6900 (0.000)***	-1014.8 (0.001)***	-0.0639 (0.000)***
(Lack of) Shareholder Lawsuits				-12.500 (0.001)***	3910.5 (0.145)	0.4889 (0.000)***
(Lack of) Legal Efficiency				0.3139 (0.889)	-1275.7 (0.488)	0.0371 (0.608)
(Lack of) Firm Ethics				0.1659 (0.918)	-1039.3 (0.429)	-0.0503 (0.572)
(Lack of) Competition				-1.9000 (0.284)	1091.8 (0.415)	0.0045 (0.903)
Daily newspapers				-6.4800 (0.000)***	-4038.2 (0.000)***	0.0263 (0.113)
Sales (USD 2005)	18.2068 (0.146)			18.8204 (0.085)*		
Log (Sales)		531.8 (0.100)*			296.9 (0.253)	
Country fixed effects	Yes	Yes	Yes	No	No	No
Adjusted R2	-0.02	-0.22	0.07	0.07	-0.02	0.04
Observations	98	98	98	103	103	117

Panel B. Government official characteristics

	Net benefit to firm (USD 2005)	*Gross* benefit to firm / Bribe	Share of rents received by government official
	(1)	(2)	(3)
High rank government official (medians)			
Head of State	-$10,451,744 (0.794)	0.52 (0.433)	70.6% (0.000)***
Minister	$1,413,936 (0.966)	1.05 (0.764)	50.3% (0.000)***
Member of Parliament	$6,340,698 (0.551)	1.41 (0.244)	41.5% (0.001)***
High rank government official median	*-$3,309,096 (0.818)*	*0.81 (0.240)*	*55.5% (0.000)***
Low rank government official (medians)			
Military Officer	-$41,050,870 (0.999)	-4.02 (0.999)	79.6% (0.034)**
Judge	$348,000,000 (0.789)	53.87 (0.789)	1.8% (0.181)
Head of State Agency	$372,171 (0.399)	1.77 (0.173)	36.1% (0.000)***
Governor/Mayor	$505,625 (0.965)	14.46 (0.896)	22.5% (0.000)***
Low rank government official median	*$3,948,873 (0.168)*	*4.19 (0.033)***	*19.3% (0.000)***
Difference (High rank vs Low rank *p*-value)	(0.435)	(0.343)	(0.157)
Ordinary least squares regressions (coefficients)			
Head of State	3.9500 (0.566)	2122.4 (0.318)	0.3264 (0.002)***
Minister	-0.8623 (0.835)	-825.14 (0.890)	0.1461(0.412)
Member of Parliament	2.7100 (0.433)	3838.3 (0.368)	-0.0802 (0.396)
Military Officer	0.3199 (0.956)	3537.8 (0.291)	0.2737 (0.140)
Judge	-12.6000 (0.380)	-5767.9 (0.359)	0.5378 (0.004)***
Head of State Agency	2.0100 (0.710)	11969.6 (0.192)	-0.1521 (0.301)
Governor/Mayor	-15.800 (0.001)***	-3858.5 (0.029)**	0.2291 (0.063)*
Sales (USD 2005)	12.9576 (0.135)		
Log (Sales)		-691.3 (0.470)	
Country fixed effects	Yes	Yes	Yes
Adjusted R2	0.00	-0.59	-0.01
Observations	115	115	133

	Net benefit (USD 2005)	*Gross* benefit to firm / Bribe	Share of rents received by government official	*Net* benefit (USD 2005)	*Gross* benefit to firm / Bribe	Share of rents received by government official
	(1)	(2)	(3)	(4)	(5)	(6)
Bribe-taking government official country proxies						
GDP per capita (USD 2005)	-1.0000 (0.411)	-3035.5 (0.000)***	-0.0358 (0.232)			
Armed Forces Personnel	2.5600 (0.212)	1179.3 (0.009)***	0.1144 (0.003)***			
Literacy	-7.8200 (0.468)	3668.2 (0.060)*	-0.3272 (0.269)			
(Lack of) Civil Liberties	-6.4800 (0.082)*	-1220.1 (0.087)*	-0.0251 (0.763)			
(Lack of) Political Rights	5.6000 (0.033)**	716.9 (0.352)	0.0605 (0.724)			
(Lack of) Press Freedom	0.5578 (0.868)	107.5 (0.703)	-0.0008 (0.955)			
Democracy score	0.3688 (0.632)	5.997 (0.968)	-0.0023 (0.743)			
Income Inequality	0.6701 (0.021)**	-50.45 (0.398)	0.1081 (0.298)			
Public Disclosure of Politicians' Income	1.0700 (0.832)	-1777.7 (0.024)**	-0.0358 (0.232)			
(Lack of) Police Reliability				3.590(0.001)***	2252.2 (0.025)**	0.0081 (0.741)
Customs Burden				-3.460 (0.006)***	-2330.2 (0.012)**	0.0063 (0.789)
(Lack of) Judicial Independence				-0.3265 (0.833)	366.1 (0.606)	-0.0049 (0.907)
(Lack of) Legal Rights				0.6265 (0.481)	-60.91 (0.867)	-0.0243 (0.119)
(Lack of) Legal Efficiency				-0.3030 (0.825)	718.5 (0.401)	-0.0020 (0.956)
Sales (USD 2005)	6.4353 (0.239)			10.2141 (0.327)		
Log (Sales)		-444.5 (0.390)			227.5 (0.678)	
Country fixed effects	No	No	No	No	No	No
Adjusted R^2	-0.04	-0.05	0.00	0.00	-0.01	-0.03
Observations	86	86	101	106	106	124

Figure 1
Timeline of events: The example of Elf Aquitaine

To illustrate our empirical methodology, we discuss the example of Elf Aquitaine, a major French oil company, reported to have been involved in widespread bribery of government officials in Europe and Africa, resulting in jail terms for numerous executives in a 2002-2003 French court trial. We try to match specific bribe payments with specific contracts awarded to the firm at a time the bribery was not public knowledge. Our measure of the *net* benefits that firms receive by paying bribes is the *gross* benefits (change in total market capitalization at the announcement of the award of the contract estimated using event study methodology) minus the amount of the bribe payment to win the contract. All figures are in constant 2005 U.S. dollars.

Bribe is not public knowledge

Company auditors discover illicit payments by Elf (l'affaire Bidermann). Case referred to public prosecutors who discover slush funds and widespread bribery worldwide. In one case, it is revealed that Elf paid the equivalent of $46m as a bribe to a prominent member of Germany's ruling Christian Democratic Party (CDU) in order to acquire oil refinery assets at Leuna from the Treuhandanstalt.

European Commission competition authorities clear the deal between Treuhandanstalt and Elf.

The Treuhandanstalt publicly announces that Elf has been selected to acquire oil refinery assets at Leuna.

Official signing of the contract between Treuhandanstalt and Elf.

Court trial of Elf executives begins, leading to convictions.

16 Jan 1992   23 Jul 1992   4 Sep 1992   1994   2002

3-day market-adjusted excess returns for Elf −0.4%

3-day market-adjusted excess returns for Elf +1.9%

3-day market-adjusted excess returns for Elf +0.3%

Gross Benefit for Elf = $327m increase in market capitalization

Net Benefit for Elf = $327m − $46m = $281m

Benefit per dollar of bribe = $327m / $46m = $7.1 per dollar of bribe

Share of rents appropriated by government official = $46m / ($327m + $46m) = 12.3%

Year 0 for payment of the bribe

Appendix

This appendix reports the frequency of observations for a sample of 166 cases involving publicly listed firms that are reported to have bribed government officials worldwide during 1971-2007, and how the bribery was revealed to authorities. Panel A.1 lists the countries of origin and the industries of the bribing firms, the countries where the bribery was committed, and the positions of the government officials bribed. Panel A.2 lists the firms that have been reported to have committed the bribery. Panel C lists how the bribery was revealed to authorities (the detailed sources appear in the Appendix). The sample is constructed by searching official documents that report corruption cases (Transparency International OECD Anti-Corruption Convention Progress Reports 2007-2009, U.S. Securities and Exchange Commission (SEC) litigation, enforcement, and complaints releases, U.S. Department of Justice (DOJ) documents pertaining to violations of the Foreign Corrupt Practices Act (FCPA), United Kingdom's Serious Fraud Office website), and news reports in *Lexis-Nexis* and *Factiva*. To be included in the sample, we must be able to determine the initial announcement date of the contract or event for which the bribe was paid, and the amount of the bribe. Panel A.3 documents how the bribery was revealed for the firms in our sample, in order to determine whether the detection of the bribery is exogenous to firm characteristics. Our interest is in examining whether firms were targeted by authorities based on specific firm characteristics. We are able to determine how the bribery was detected in 157 out of 166 cases in our sample (95% of our sample). We classify the method of detection into six categories, and present the relevant examples pertaining to the cases in our sample. Panel A.3.1 reports *investigations of politicians or government officials*, which involves revelation of the bribery which resulted from an investigation by national authorities of the *government official* involved rather than the firm. In most of these cases, the investigation followed government or regime change, and started in a foreign country, other than the firm's country of origin (58 cases). Panel A.3.2 reports *spin-offs from unrelated or third-party investigation*, which involves cases where the detection of the bribery followed an investigation of the company or of some of the actors involved for unrelated reasons (39 cases). Panel A.3.3 reports cases of *exogenous change in enforcement* (14 cases). Panel A.3.4 reports cases revealed by *whistleblowers*, where authorities have been alerted to the bribery by whistleblowers, most often former company employees who decided to take legal action against their former employer (15 cases). Panel A.3.5 reports cases revealed through *investigations by the press* (7 cases). Panel A.3.6 reports *voluntary disclosures*, where firms have voluntarily disclosed the corruption to the authorities. Most often the bribery was detected during routine internal investigations or during due diligence conducted before mergers (15 cases). Finally, Panel A.3.7 reports cases revealed through *action by competitors or third parties* (9 cases).

Panel A.1. Countries, industries, and government officials

Country of the government official bribed		Country of origin of the bribing firm		Industry		Position of the government official bribed	
Japan	27	Japan	43	Construction	46	Head of State	22
South Korea	13	USA	41	Electrical & Electronic Equipment	21	Minister	29
Nigeria	10	France	23	Aircraft, Oil & Gas	17	Member of Parliament/Party	20
Philippines	8	Germany	16	Machinery	9	Governor/Mayor	20
Indonesia, Lesotho	7	UK	10	Computers, Wholesale	6	Head of Government Agency	27
China, Singapore, South Africa	6	South Korea	8	Automobiles	5	Military	7
India, USA	5	Italy	5	Banking, Telecommunications, Trading, Transportation	4	Judge	3
Angola, Egypt, Greece	4	South Africa, Switzerland	3	Medical Equipment, Real Estate, Utilities	3	Other Official	20
Italy, Russia, Taiwan	3	Netherlands, Norway, Sweden	2	Business Services, Mining, Pharmaceuticals, Shipbuilding, Steel	2	Unidentified Official	45
Azerbaijan, Brazil, Costa Rica, Iran, Israel, Kazakhstan, Saudi Arabia, Slovakia, Spain, Venezuela	2	Argentina, China, Hong Kong, India, Philippines, Spain, Taiwan, Thailand	1	Entertainment, Food, Hotels, Rubber	1		
Argentina, Bahamas, Belgium, Benin, Congo D.R., East Timor, Gabon, Germany, Ghana, Iraq, Mexico, Mongolia, Oman, Pakistan, Peru, Poland, Romania, Serbia, Suriname, Tanzania, Thailand, Trinidad & Tobago, Uganda, Uzbekistan, Zambia	1						

Panel A.2. Companies

Companies		Companies	
BAE Systems, Elf Aquitaine, Siemens	6	Abengoa, Alcatel, Cyber Bay, Italian Development (BVI), Guoco Holdings, Anglo-American, Ballast Nedam, Balfour Beatty, Boeing, BP Amoco, Burns & Roe, China Light & Power, Concor, Conoco-Phillips, Daimler-Benz, DLF, Ericsson, EADS, Exxon, FIAT, Fuji Heavy Industries, Glaxo Smithkline, Group Five, Halliburton, Hochtief, Host Marriott, IBM,	1
Alstom	5	Impregilo, Industrial Bank of Japan, JGC, Kawasaki, Korean Airlines, LG, Wembley, Litton Industries, Long-term Credit Bank of Japan, Loral, Mobil Oil, Montedison, Newmont Mining, Nippon Steel, Pirelli, United Technologies,	
Hyundai, Kajima	4	Rolls-Royce, Koninklijke KPN, SAIC, Schering-Plough, Shimizu, Shinko Denki Kogyosho, Societe Generale de Surveillance, Societe Industrielle Plantation Haveas, Spie Batignolles, Statoil, Stirling International, Taisei,	
Baker Hughes, MAN, General Electric, Hazama, Hitachi, Invision Technologies, Mitsui, Nomura, Obayashi, Total	3	Taiwan Cement, Republic Services, Technip, Tekken, Telecom Italia, Telefonica de Argentina, Tesoro Petroleum, Texaco, Thyssen-Krupp, Titan, Toda, Toyota Tsusho, Toyo Construction, Veidekke, L-1 Identity Solutions, Wakachiku Construction, Westinghouse Electric, Willbros, Xerox, ZTE	
ABB, Blohm & Voss, Dassault Aviation, Fraport, General Dynamics, Kumagai Gumi, Lockheed Martin, Lucent Technologies, Marubeni, Mitsubishi, NEC, Samsung, Sumitomo, Teledyne, Thomson CSF	2		

Panel A.3. The bribery detection process

Number of cases	Description

Panel A.3.1. Investigations of politicians or government officials

(1)   7   The corruption associated with the Lesotho Highlands Water Project is an example. In 1986, the military government in Lesotho established the Lesotho Highlands Development Authority (LHDA) with the mandate to develop a huge infrastructure project aiming to provide electricity to Lesotho and water to South Africa. In 1993, the civilian government that followed the military regime conducted an audit of LHDA, which revealed irregularities in the conduct of its chief executive Masupha Sole. When his bank accounts were opened, they revealed links to accounts in South Africa and Switzerland. The latter revealed payments that could be linked to numerous European and Canadian firms that had won project contracts. [Darroch, F., "Case study: Lesotho puts international business in the dock", *Global Corruption Report 2005*, Transparency International, pages 31-36]

(2)   24   During 1993-1994 in Japan, the investigation for tax evasion of Shin Kanemaru, former head of Japan's ruling Liberal Democratic Party (LDP) led to a series of other investigations that uncovered massive corruption among construction companies. Numerous other politicians were investigated in the following years, resulting in the revelation of numerous bribery cases. [Nabeshima, K., "Court sends LDP a message," *The Japan Times*, 28 January 2003; Watanabe, T., "Tax trial of ex-kingpin starts in Japan," *Los Angeles Times*, 23 July 1993; "Three Shimizu execs receive suspended terms for bribery," *The Japan Times*, 13 September 2000]

(3)   2   As part of a wider political scandal involving investigation by prosecutors of Roh Tae Woo, South Korean president from 1988-1993, a legislator in the Korean Parliament alleged that the former president received a bribe in order to reverse an earlier government decision and purchase 120 F-16 fighter jets from General Dynamics. [Mintz, J., "South Korea: General Dynamics denies bribery allegations," *Washington Post*, 26 October 1995]

(4)   2   A U.S.-citizen, James Giffen, personal advisor to the government of Kazakhstan, was investigated by U.S. authorities in 2000. The investigation eventually turned to several oil companies (including Mobil Oil, and Texaco) suspected of paying bribes to the Kazak government in return for oilfield development rights. [Howald, S., "Millions from Kazakhstan on Swiss bank accounts," *Basler Zeitung*, 21 June 2004]

(5)   2   Following the fall of the dictatorship of Ferdinand Marcos in the Philippines, the first democratically elected government launched an effort to recover money siphoned away by the former dictator. As part of this effort, the new government launched an investigation of Westinghouse Electric and Burns & Roe for alleged bribes paid in order to secure a nuclear power plant contract in the mid-1970s. [Paltrow, S.J., "Westinghouse bribery trial underway," *Los Angeles Times*, 18 March 1993]

(6)   1   In South Korea, the arrest of three air-force colonels in 2002, led to investigations of bribery during the bidding for an aircraft contract by Dassault Aviation and Boeing. ["2 jet fighter makers considered by Korea," *The New York Times*, 18 March 2002]

(7)	3	The prosecution of Japanese Lower House member Muneo Suzuki, and Foreign Ministry officials in 2002, resulted in an investigation that discovered bribe payments my Mitsui in numerous foreign locations. ["Mitsui employees arrested over Kunashiri project bid," *The Japan Times*, 4 July 2002]
(8)	5	In 1995, the Corrupt Practices Investigation Bureau of the Singapore Government investigated and convicted the former chief executive of the Public Utilities Board for accepting bribes over many years. As a result of the investigation, five international companies (BICC Cables – a unit of Balfour Beatty – Siemens, Pirelli, Marubeni, Tomen) were banned from public contracts. [Singapore Corrupt Practices Investigation Bureau (app.cpib.gov.sg); "Maximum jail sentence for Singapore official," *Transparency International's Quarterly Newsletter*, March 1996]
(9)	2	Miguel Angel Rodriguez, President of Costa Rica during 1998-2002, was investigated and eventually jailed for corruption after he left office. The investigation uncovered that numerous companies had paid bribes, including France's Alcatel, and Spain's Abengoa. [Matlack, C., Smith, G., Edmondson, G., "Cracking down on corporate bribery," *BusinessWeek*, 6 December 2004; "Abengoa loses Costa Rican contract," *insidecostarica.com*, 21 October 2004]
(10)	1	After the government of Sir Lynden Pindling in the Bahamas was ousted after 25 years in office in 1992, a judicial commission was set up to investigate potential corruption in the previous government. Among its findings were allegations that aircraft maker deHavilland (then a subsidiary of Boeing) had paid bribes to government officials in order to sell planes to the Bahamian state-owned airline. [Lane, P., "Ex-Boeing unit suspected of bribes – deHavilland consultant admits to making payments to get Bahamas aircraft order," *The Seattle Times*, 21 October 1994]
(11)	1	Evidence against former Yugoslav president Slobodan Milosevic following his arrest for was crimes suggested that he may have received bribes from Telecom Italia for the sale of 29% of state-owned Telecom Serbia in 1997. [Wagstyl, S., Guzelova, I., Hope, K., "Milosevic's murky fortune," *Financial Times*, 4 April 2001]
(12)	1	In 2003, the Indian Central Bureau of Investigation (CBI) placed under surveillance several top ranking members of the Delhi Development Authority (DDA). Among many cases uncovered, one of the bribery cases involved a bribe by developer DLF for allowing a higher floor area ratio in one of its construction projects. ["DDA scam: Khattar, Risbud, Chander arrested," *The Times of India*, 8 April 2003]
(13)	1	In 2001, a scandal involving buying votes by numerous elected city and county officials and support of numerous projects broke in Colton, San Bernardino County in California. Among numerous offences involving many companies, the investigation uncovered bribe payments by Taormina Industries (a subsidiary of Republic Services). ["Hernandez, R., "Mayor lashes out at scandal," *The Press-Enterprise*, 31 August 2001; Martelle, S., "Bribery tarnishes Colton's image," *Los Angeles Times*, 10 February 2002]
(14)	1	An investigation and prosecution by authorities in Ghana of officials involved in the privatization of Ghana Rubber Estates Limited (GREL) uncovered evidence of bribes paid by the French company Societe Industrielle Plantation Havea (SIPH). ["Sherry Ayittey's passport to be released?" *Ghanaweb.com*, 28 September 2001; "Ghana Rubber Estates Limited (GREL) trail," *ModernGhana.com News*, 11 July 2003]
(15)	1	Following Benazhir Butto's 2nd term in office (1990-1993) there were corruption allegations for her and her husband Ali Zardari, which resulted in prosecution in Pakistan and Switzerland. Among the allegations was a bribe payment by Swiss firm Societe Generale de Surveillance (SGS). ["Pakistan asks Swiss to revive Zardari probe," *swissinfo.ch*, 31 March 2010]

(16) 1 The investigation and prosecution into corruption allegations related to the family of former Taiwan president Chen Shui-bian resulted in the admission of the receipt of payments from Taiwan Cement Group. ["Former Taiwan leader's wife pleads guilty," *China Daily*, 11 February 2009]

(17) 3 In 1992, Italian judge Antonio Di Pietro launched operation "clean hands" by arresting a member of the Italian Socialist Party on bribery charges. Eventually, the investigation engulfed numerous politicians and public officials and brought down the entire post-war political system in Italy ("affair Tangentopoli"). FIAT and Enimont (Montedison) were among the firms that were eventually implicated in paying bribes [Poole, J., "Digging for dirt: The story behind the clean hands campaign," *The Florentine*, 15 November 2007; Cowell, A., "Corruption at Fiat is admitted by chairman," *The New York Times*, 19 April 1993]. In 1994, the former Italian Health Minister was indicted by prosecutors for a scandal involving payments by numerous pharmaceutical companies. One of the firms implicated in the investigation was British firm Glaxo. ["Italy's ex-Health Minister interrogated," *ThePharmaLetter*, 22 August 1994; Arie, S., "British drug giant in Italian bribery investigation," *The Guardian*, 13 February 2003]

Panel A.3.2. Spin-off from unrelated or third-party investigation

(1) 5 In 2004, the Swiss Prosecutor General conducted an investigation of a Swiss banker who was suspected of laundering money for a Colombian drug cartel. No such links were discovered and the investigation ended in failure. However, the documents seized from the banker's office revealed that he acted as middleman for the French engineering company Alstom (maker of trains, subways, and power plant turbines) to secure contracts through bribes in South America and Southeast Asia. [Dahlkamp, Y., Schmitt, Y., Simons, S., "Did Alstom bribe like Siemens? France's Alstom Group may have bought its way into contracts but the media and politicians have been shielding the company," *BusinessWeek Europe*, 1 July 2008]

(2) 10 In 1994, the auditors of the major French oil company Elf Aquitaine (nowadays part of Total) discovered a small investment by the company to a textile business. Since the textile sector was outside the scope of an oil company, the matter was investigated further, and it was discovered that the payment represented an unofficial divorce settlement to the ex-wife of the company's chief executive Le Floch-Prigent ("l'affaire Bidermann"). The matter was referred to the office of the prosecutor general for investigation of misuse of company funds. It was only then that further investigations discovered slush funds that were being used to pay bribes in Africa and elsewhere. [Ignatius, D., "True crime: The scent of French scandal," *Legal Affairs,* May-June 2002 (http://www.legalaffairs.org/issues/May-June-2002/story_ignatius_mayjun2002.html)] The Elf affair had two additional unexpected consequences. First, questions asked by prosecutors to an employee of French company Technip, led to revelations of bribery by a consortium including Technip, Halliburton, JGC, and Snamprogetti in order to secure the Bonny Island project in Nigeria. [George, B.C., Lacey, K.A., 2006, Investigation of Halliburton Co./TSKJ's Nigerian business practices: Model for analysis of the current anti-corruption environment on Foreign Corrupt Practices Act enforcement, *Journal of Criminal Law & Criminology* 96, 101-124] Second, during the course of the Elf affair a captain of the Navy of Taiwan – who was believed to be ready to act as whistle-blower – was found murdered. The ensuing investigation discovered that Elf and Thomson CSF paid bribes to secure the sale of frigates to the Taiwanese Navy in 1991. ["Taiwan's frigate corruption investigation: Full steam ahead," *Defense Industry Daily*, 30 August 2010]

(3)	4	In 1999, a consortium consisting of German shipbuilding company Blohm + Voss, its parent Thyssen Krupp , and their local South African partner Africa Defense Systems (ADS) won a contract for the supply of 4 corvettes to the South African Navy, despite the fact that they were not even shortlisted following the first round of the tender. The deal raised suspicions in South Africa, and led to investigations that culminated in the jailing of the South African partner in 2005. Although the initial suspicions did not extend to the German companies, in 2006, German prosecutors began their own investigations, which uncovered bribe payments by the German companies. [Bonisch, G., Dettmer, M., "Bribery allegations cloud German ship sale to South Africa," *Spiegel Online* (www.spiegel.de), 5 February 2007] The same investigation also implicated French arms company Thomson CSF in bribe payments. [Meldrum, A. "Corruption scandal rocks ANC leadership," *The Age*, 4 June 2005]
(4)	3	French oil company Total was placed under investigation by French authorities in 2006, after it was named in the Volcker report investigating the United Nations oil-for-food program with Iraq. ["Total executive in bribery probe," *BBC News* (www.bbc.co.uk), 20 October 2006]
(5)	6	The arrest of a racketeer who succeeded in blackmailing four brokerages and numerous banks in Japan in 1997, led to an investigation that uncovered massive corruption evidence in the country's financial sector, and resulted in the arrest of more than 30 top executives of financial firms, and at least 5 Ministry of Finance and Bank of Japan officials. [Holley, D., "Bank of Japan exec arrested in deepening scandal," *Los Angeles Times*, 12 March 1998]
(6)	1	The murder of Andre Cools, a member of Belgium's Socialist Party, for what was eventually discovered to be a share of bribe money, alerted Belgian authorities, and led to an investigation which implicated top ranking government politicians (including former Secretary General of NATO Willy Claes) and French company Dassault Aviation for bribe payments during 1988-1991. [Whitney, C.R., "Belgium convicts 12 for corruption," *The New York Times*, 24 December 1998]
(7)	1	Tesoro Petroleum was placed under investigation for foreign bribery in 1977, following evidence uncovered by the Internal Revenue Service (IRS). [Robert Bolton v. Tesoro Petroleum Corp.", *United States Court of Appeals*, Fifth Circuit – 871 F.2d 1266, 24 April 1989 (cases.justia.com)]
(8)	3	German truck maker MAN was placed under investigation for extensive bribery over many years in 2009, following evidence uncovered by the country's tax authorities. ["German truck maker hit by bribery allegations," Deutsche Welle (www.dw-world.de), 5 May 2009]
(9)	1	Korean Airlines was investigated for tax evasion, which uncovered bribery of government officials. ["Korean Air $50m tax probe," *BBC News*, 11 November 1999]
(10)	1	A United nations report in 2002 named numerous foreign companies (among them Anglo-American) for helping to plunder the natural resources of the D.R. of Congo. [Carroll, R., "Multinationals in scramble for Congo's wealth," *The Guardian*, 22 October 2002]
(11)	4	Tax investigations in 1999 in Japan uncovered payment by numerous Japanese contractors in Indonesia for gaining tax concessions in Indonesia and for the award of contracts financed by Japan's Overseas Development Agency (ODA). ["Tekken dodged penalty tax on kickbacks in Indonesia," *Kyodo News*, 1 April 1999; *Jakarta Post*, 25 April 1999]

Panel A.3.3. Exogenous change in enforcement

(1)   6   Liechtenstein was blacklisted in 2000 by the Group of Seven for lack of cooperation in the investigation of money laundering activities. Following the terrorist attacks of 11 September 2001 and U.S. pressure surveillance within banks was improved. In 2003, compliance officers on the lookout for terrorist financing in LGT, Liechtenstein's largest bank, spotted transactions between two offshore companies controlled by Siemens executives Prodromos Mavridis (based in Greece) and Reinhard Siekaczek (based in Germany). The bank filed a suspicious transactions report to local authorities, which in turn alerted Swiss and German authorities. This marked the beginning of a worldwide investigation of Siemens which uncovered numerous bribe payments worldwide and resulted in jail terms for numerous Siemens executives and in the company paying large fines. [Crawford, D., Esterl, M., "Inside bribery probe of Siemens Liechtenstein bank triggered an international hunt," *The Wall Street Journal*, 28 December 2007]

(2)   8   In South Korea, President Roh Moo Hyun's administration during 2003-2007 pledged to reform the country's industrial groups (*chaebols*). It placed under investigation the country's largest industrial groups, including Hyundai, Samsung, SK Corp, and Doosan for shareholder protection and corruption violations. [Choe, S.-H., "Hyundai's plans for glory stumble over an investigation," *The New York Times*, 12 April 2006] The investigations launched implicated foreign companies as well, such as IBM's subsidiary in South Korea. ["IBM Korea draws bribery charges," *Reuters*, 1 April 2004; "IBM Korea dismisses executive in bribery probe," *Computerweekly.com*, 5 January 2004]

Panel A.3.4. Whistleblowers

(1)   3   In 2002 U.S. oil-field services firm Baker-Hughes was the target of two law suits by former employees (who claimed that they were fired by the company for refusing to pay bribes), who alerted authorities to investigate bribery in Nigeria, South America, and Thailand. [Sanders, L., "Baker faces 3 bribery allegations," *CBS.MarketWatch.com*, 20 June 2002]

(2)   1   In 2001, following the merger between Daimler and Chrysler, one of the internal auditors of Chrysler discovered how the German company processed bribe payments. After he was dismissed, in 2004, he approached U.S. authorities and disclosed what he knew. This led to a U.S. investigation that uncovered bribe payments by Daimler in 22 countries worldwide. [Hawranek, D., "US investigators crack down on Daimler's culture of corruption," *Spiegel Online* (www.spiegel.de), 30 March 2010]

(3)   1   The internal audit department of Norwegian oil company Statoil discovered bribe payments to secure oil and gas rights in Iran in 2004. When the company's top management refused to take action, the information was leaked to the Norwegian press, which led to the resignation of senior management and investigations by Norwegian and U.S. authorities. [Shearman & Sterling LLP, Cases: U.S. v. Statoil ASA (fcpa.shearman.com)]

(4)   1   In 2007, Swiss engineering firm ABB publicly announced, and informed U.S. authorities, that it had uncovered suspect payments by some of its employees in Asia, South America, and Europe. ["ABB, Siemens probes show bribery hard to stamp out," *Reuters* (www.reuters.com), 26 July 2007]

(5)   4   An employee of General Electric (GE) in Israel revealed to authorities that GE had bribed an Israeli air force general during the 1980s in order to secure the sale of GE military jet aircraft engines. The revelation led to investigations in both Israel and U.S. [Black, L., "GE in bribery case talks," *The Independent*, 11 July 1992; Gibson, W.E., "Whistleblower finally collects after long fight with GE, Israel," *The Seattle Times*, 21 December 1992] The investigations also engulfed United Technologies. [Vartabedian, R., "United Tech tied to aid diversions," *The Los Angeles Times*, 27 October 1993]

(6)   1   The former president of the Philippine Forest Corp disclosed the members of the National Economic and Development Authority (NEDA) received bribes by Chinese firm ZTE Corp for a telecommunications contract in the Philippines. [Punongbayan, M., "Lozada: Abalos told me about P200-million bribe," *The Philippine Star*, 12 November 2010]

(7)   2   A former employee filed a lawsuit against defense contractor Teledyne in 1989 alleging corruption. This led to more whistle-blowers coming forward, and an investigation by U.S. authorities that uncovered bribe payments in the U.S. and in foreign countries. ["At Teledyne, a chorus of whistle-blowers," *BusinessWeek*, 14 December 1992]

(8)   1   In 2001, two former employees of Wembley PLC's Lincoln Park U.S. subsidiary filed a lawsuit against the company alleging that their employer was planning to bribe the Speaker of Rhode Island's House of Representatives in relation to dog racing track and casino licenses. The allegations led to an investigation by U.S. authorities. [Gregg, K., Anderson, L., "Lottery chief tells of Bucci's 'bonus' offer to McKinnon," *The Providence Journal*, 16 September 2003]

(9)   1   An investigation into U.S. defense contractor Litton Industries was launched in 1995, following a lawsuit filed in a Los Angeles court by a former Litton manager. [Vartabedian, R., "Litton Saudi defense project is target of IRS inquiry," *The Los Angeles Times*, 3 July 1995]

Panel A.3.5. Investigations by the press

(1)   6   In 2003, *The Guardian* newspaper in the United Kingdom alleged that the arms sales department of the Ministry of Defense was complicit in the payment of bribes by UK defense companies abroad, and that BAE Systems had paid bribes to secure contracts in the Czech Republic, India, Qatar, and South Africa. [Evans, R., Traynor, I., Harding, L., Carroll, R., "Web of state corruption dates back 40 years," *The Guardian*, 13 June 2003; Evans, R., Traynor, I., Harding, L., Carroll, R., "BAE faces corruption claims around the world," *The Guardian*, 14 June 2003] In 2004, the newspaper alleged that BAE had won the USD86 billion "Al Yamanah" contracts for supplying jets to Saudi Arabia during 1985-1988, by paying bribes to Saudi officials. In November 2004, the UK's Serious Fraud Office launched an investigation which was dropped two years later. [Timeline: BAE corruption probe", *BBC News*, 26 June 2007 (www.news.bbc.co.uk)] The decision to drop the investigation was defended by Prime Minister Tony Blair who said that "our relationship with Saudi Arabia is vitally important for our country … that strategic interest comes first."["Blair defends Saudi probe ruling", *BBC News*, 15 December 2006 (www.news.bbc.co.uk)] However, further evidence of corruption was revealed when the Department of Trade and Industry (DTI) declassified and made publicly available in the National Archives its own copy of related files, whose originals were kept at the Ministry of Defense. The "error" was corrected, and the files were removed, but in the meantime they had been copied by an investigative journalist. [Leigh, D., Evans, R., "Kew's al-Yamanah files," *The Guardian*, 7 June 2007] A few weeks later, in June 2007, the U.S. Department of Justice opened a separate corruption probe into BAE involving this and other deals ["U.S. launches corruption probe into Britain's BAE," *Reuters*, 26 June 2007 ([www.reuters.com)](www.reuters.com)], which resulted in BAE pleading guilty to charges of false accounting and a USD400 million settlement deal. [BAE pays fines of BP285m over arms deal corruption claims," *The Guardian*, 05 February 2010 (www.guardian.co.uk)]

(2)   1   Bribery allegations against Host Marriott in relation to a contract at Miami International Airport were revealed in an investigation of local politicians carried by *The Miami Herald* in 1999. [Greene, R., Dorschner, J., Tanfani, J., "Insiders profit, travelers suffer," *The Miami Herald*, 17 October 1999]

Panel A.3.6. Voluntary disclosures

(1)   2   Lucent Technologies discovered violations of the U.S. Foreign Corrupt Practices Act (FCPA) in its Chinese operations during an internal investigation. The company fired four executives in 2004, and voluntarily alerted the SEC and the DOJ, which launched a formal investigation. ["Foreign bribery cases in Asia and Pacific," *Transparency International* (www.transparency.org)]

(2)	2	In 1999, during the presidency of Fidel Ramos in the Philippines, Fraport, the German airports operator, won the contract to construct and operate the new Terminal 3 of the Ninoy Aquino International Airport in Manila (NAIA-3). The contract was further amended during the presidency of Joseph Estrada. [Landler, M., "A bitter exit from a Philippines airport," *The New York Times*, 30 April 2003] The terminal was completed, but the new administration of Gloria Arroyo cancelled the contract in November 2002, and refused to pay Fraport, alleging that the contract provisions were too onerous. The Supreme Court of the Philippines ruled in favor of the government. Unable to recoup its investment, Fraport filed a complaint with the International Center of Settlement of Investment Disputes (ICSID) of the World Bank in September 2003, alleging extortion and the demand for bribes by Philippine authorities. [Go, M.G.A., "Philippines: All the president's lawyers," *Asia Times Online*, 25 October 2003] Following this complaint, in December 2003, German prosecutors launched an investigation into Fraport in connection to the Manila project. ["Foreign bribery cases in Asia and Pacific," *Transparency International* (www.transparency.org)]
(3)	1	In 2003, Lockheed announced the acquisition of Titan Corp. In the course of conducting due diligence after the announcement of the deal, the companies discovered bribe payments by Titan Corp. related to telecommunications contracts in Benin. The companies disclosed the findings to the U.S. authorities, and Lockheed withdrew from the merger. [Shearman & Sterling LLP, Cases: U.S. v. Titan Corp (fcpa.shearman.com)]
(4)	3	In 1999, activist organization Global Witness called on foreign oil companies operating in Angola to disclose corruption in their activities, in an effort to clean up the government and promote economic development in the impoverished country. ["A crude awakening: How Angola state corruption and the lack of oil company and banking transparency has contributed to Angola's humanitarian and development catastrophe," *Global Witness* (www.globalwitness.org), 5 December 1999] One year later BP Amoco was the first one to admit paying bribes, which also led to investigations of Elf Aquitaine and Exxon. ["Campaign success: BP makes move for transparency in Angola," *Global Witness* (www.globalwitness.org), 12 February 2001]
(5)	3	In 2004, InVision Technologies shared results of its internal investigation suggesting bribe payments abroad, and entered into a non-prosecution agreement with the U.S. Department of Justice. [Post, L., "Deferred prosecutions on rise in corporate bribery cases," ALM Media Properties, LLC (www.law.com), 17 August 2005]
(6)	2	In 1975, the SEC and the Senate Committee on Foreign Relations conducted an open investigation, asking firms to volunteer information of bribery abroad (the evidence gathered eventually led to the promulgation of the Foreign Corrupt Practices Act in 1977). Lockheed was one of the firms that provided evidence of bribery, and the investigations traced some of the bribe payments to Japanese politicians. This also exposed its Japanese partner Marubeni. [Posadas, A., "Combating corruption under international Law," *Duke Journal of Comparative and International Law* 10, 345-414]
(7)	1	In 2002, an internal investigation by Norwegian firm Veidekke uncovered a bribe paid by its UK subsidiary to the Ugandan Minister of Energy in 1999, in relation to the World Bank funded Bujagali dam project, and informed the World Bank. [Pallister, D. "Bank stalls dam after UK firm's payment to minister," *The Guardian*, 19 July 2002]
(8)	1	In 2000, an internal investigation report by its auditors uncovered bribe payment's paid by Xerox's Indian subsidiary to Indian government officials. The company disclosed the findings to the U.S. SEC and to Indian authorities. ["Xerox Modicorp under Govt scanner," *Indianexpress.com*, 4 July 2002]

Panel A.3.7. Action by competitors or third parties

(1)   2   In 1999, Korea Supply Co, the competitor to Loral Corp for an aircraft radar system awarded by the Ministry of Defense of South Korea in 1995, filed a lawsuit in the U.S. alleging bribery. The lawsuit followed reports in the Korean press which alleged that Loral's agent for the project in Korea (a former model, lounge singer, and Los Angeles nightclub owner) had an affair with the South Korean Minister of Defense. The incident drew the attention of the U.S. Department of Justice, which launched its own investigation into Lockheed Martin, which had acquired Loral in the meantime. [Girion, L., "S. Korean defense scandal to test competition law," *Los Angeles Times*, 4 December 2002]

(2)   3   In 1995, the Philippines Public Estates Authority (PEA) signed a contract for the sale of reclaimed land along Manila Bay to a joint venture involving Filipino and foreign businessmen (Amari Coastal Bay Development Corp). A few months later, a disgruntled intermediary, who felt excluded from the deal, provided evidence of corruption to a member of the Senate. The latter, disclosed the evidence in a speech on the Senate floor. The ensuing investigations eventually led to the cancellation of the contract. [Coronel, S., Tordesillas, E., "The grandmother of all scams," Philippine Center for Investigative Journalism (www.pcij.org), 28 April 1995; Go, M.G.A., "Philippines: All the president's lawyers," *Asia Times Online*, 25 October 2003]

(3)   1   A public interest litigation (PIL) lawsuit against U.S. power company Cogentrix and its partners filed by an activist, alleging bribe payments to secure the construction of a power plant in Mangalore, India, resulted into an investigation by India's Central Bureau of Investigation (CBI) in 1998. ["CBI to probe Cogentrix," Indian Express, 27 February 1998; Kachwaha, S., "Public interest litigation in India," International Bar Association Annual Conference, Buenos Aires, October 2008]

(4)   1   In 2004, U.S. oil company Oceanic Exploration filed a lawsuit in the U.S. District Court implicating ConocoPhilips in a conspiracy involving bribes in order to take away a concession it had been granted in East Timor. ["Australian government rejects Timor gas bribe allegations made in U.S. court," *Tahiti Presse*, 3 March 2004]

(5)   1   Evidence of bribery by British firm Rolls-Royce for a contract to build a power plant in India's Andhra Pradesh emerged during a legal dispute in India involving the project's local shareholders. [Barnett, A., "When Rolls-Royce 'bribed' for power contract," *The Tribune*, 4 February 2003]

(6)   1   Newmont Mining was investigated by U.S. authorities following a shareholder's accusation of bribery in Peru. ["U.S. subpoenaed Newmont Mining on Peru dispute," *The New York Times*, 4 November 2003]