Bribery: Business As Usual?

Jonathan M. Karpoff
University of Washington

D. Scott Lee
Texas A&M University

Gerald S. Martin
American University

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Abstract

Firms prosecuted for foreign bribery experience significant costs. Their share values decline by 4.99%, on average, on the first day that news of the bribery action is reported, and by 13% over all announcements related to the regulatory enforcement action. These firms' average cost of equity capital increases from 10.5% to 13%, and compared to matched control firms, they experience a higher number of mergers and bankruptcies. Closer inspection, however, indicates that most of these costs are due to other violations, not the bribery charges per se. When charges of financial misrepresentation are included, the mean initial share price reaction is –5.66%, compared to –1.15% when they are not. The cumulative share price reaction is –14.33% when financial misconduct occurs, compared to –6.05% when it does not. And the mean increase in the cost of equity capital is 3.52 percentage points for firms whose actions include financial misconduct charges, compared to a negligible change when such charges are absent. These results indicate that the cost to firms of being charged with foreign bribery are substantially smaller than for other types of misconduct, especially financial misrepresentation. These results are inconsistent with arguments that foreign bribery actions impose large costs on target firms and represent a significant deterrent to bribery. Investors and regulators appear to care about, and discipline, financial reporting violations, but not bribery as a stand-alone offense.

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<center>**Bribery: Business As Usual?**</center>

1. Introduction

In 1977, the U.S. Congress passed the Foreign Corrupt Practices Act (FCPA), prohibiting U.S. firms from offering bribes to obtain contracts or favorable treatment from foreign officials. Through August 2009, the SEC and U.S. Department of Justice brought 75 foreign bribery actions against publicly-traded firms. Many of these actions attract widespread media attention. For example, 19 firms now face FCPA charges for paying $230 million in bribes to Iraqi officials in the United Nations' Oil for Food program.[1] In another highly publicized case, Siemens agreed in December 2008 to pay $800 million in penalties to settle FCPA bribery charges.

The FCPA is in many ways a puzzle. When it was passed, the U.S. became the only country to impose penalties on its domestic firms for engaging in activities that, to many people, are a normal part of business. Why would U.S. policy hamstring U.S. firms in the competition for overseas contracts? A related puzzle is about enforcement. A handful of corporate employees have served jail time for breaking FCPA anti-bribery rules. But do firms in general face meaningful costs when they are prosecuted for foreign bribery? PricewaterhouseCooper claims that they do: "Even a single incident [of bribery] can lead to irreparable economic hardship and reputational damage that may adversely affect the overall stability and competitiveness of any business."[2] The counter-argument, however, is that bribery enforcement actions amount to little more than a slap on the wrist. This view is captured in a recent *Fortune* magazine article: "[P]erversely, the puny size of the penalties [for bribery] could provide an incentive for managers to stretch the rules."[3]

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[1] Independent Inquiry Committee into the United Nations Oil for Food Program (Paul Volcker, Chairman), Manipulation of the Oil-For-Food Program by the Iraqi Regime, New York, NY: IIC, 2005.
[2] See http://www.pwc.com/us/en/foreign-corrupt-practices-act/index.jhtml?WT.srch=1&wt.mc_id=MRK091001WS1
[3] Cass, Dwight, "Cracks in the SEC's Crackdown: The Securities Watchdog is Chasing High-Profile Cases, but the Fines It's Extracting Are Peanuts," August 12, 2009, http://money.cnn.com/2009/08/12/news/economy/sec_schapiro_fines.fortune/index.htm

<center>1</center>

A third puzzle is about the mismatch between theory and empirical evidence about the importance of anti-bribery laws. An extensive literature emphasizes the importance of laws to constrain corruption, including bribery, for promoting economic development (e.g., see Shleifer 2004; Svensson 2005). But little is known about the frequency or effects of anti-bribery enforcement (e.g., see Green 2005). Spahn (2009) argues that legal scholars avoid the topic of bribery, which is "the pink elephant in the room that everyone sees but no one wants to discuss."

This paper provides evidence about bribery enforcement actions in the U.S. We document the frequency of such actions, the characteristics of the target firms, the penalties imposed by regulators, the magnitude of shareholder losses, and the effects on the target firms' ongoing business.

On the surface, the data seem to support the view that bribery enforcement actions impose meaningful costs, including but not limited to the direct penalties imposed by the DOJ and SEC. The SEC and DOJ impose direct penalties that average $49.8 million, with class action and derivative lawsuits imposing an additional $2.90 million in settlement amounts. The indirect costs appear to be particularly large. The mean one-day share price reaction to the initial revelation of bribery is –4.99%. Cumulating over all key announcements about the bribery and the related enforcement action, the mean loss in share values is 13.06%. This price decrease appears to anticipate an increase in the bribery firms' financing costs, as their cost of equity capital increases from an average of 10.5% to 13% after their bribery is revealed to the public. These firms also experience a higher incidence of organizational changes compared to a matched control group, including mergers and bankruptcies.

These results suggest that firms caught in bribery scandals do indeed face large penalties. Closer inspection, however, reveals that most bribery-related enforcements are accompanied by charges that the company misreported its financial statements, and that most of the direct and indirect penalties reflect financial misrepresentation, not bribery. When firms are charged with financial misrepresentation in addition to bribery, the mean SEC and DOJ fine is $57.67 million, compared to $4.28 million for bribery charges that are not accompanied by such charges. The mean one-day impact on share values is –5.66% when financial misconduct charges are included, compared to –1.15% when they are not. (The difference

is significant at the 5% level.) The cumulative share price impact when the bribery is accompanied by financial misconduct (–14.33%) is more than double the loss associated with bribery actions in the absence of financial misconduct (–6.05%). The impacts on the cost of equity capital follow a similar pattern. The post-violation cost of equity capital increases by 3–4 percentage points for firms whose actions included financial misconduct charges. In contrast, there is no change in the cost of equity capital when the bribery enforcement action has no associated financial misconduct.

These results indicate that firms risk only small penalties for bribery. When the bribery is accompanied by charges of financial misrepresentation, however, the direct and indirect penalties are large. This, in turn, implies that firms face large penalties for misleading investors, not for bribery *per se*.

These results provide insight into the puzzles stated above, about the costs and benefits of bribery and the FCPA. Previous researchers report that the penalties for some types of misconduct are large, particularly because they include reputation losses. Examples include false advertising (Peltzman 1981), product recalls (Jarrell and Peltzman 1985), air safety disasters (Mitchell and Maloney 1989), frauds of private parties (Karpoff and Lott 1993; Alexander 1999; Murphy, Shrieves, and Tibbs 2009), investigations of IPO underwriters (Beatty, Bunsis, and Hand 1998), and defense procurement fraud (Karpoff, Lee, and Vendrzyk 1999). The penalties are large because a firm's counterparties – its customers, suppliers, investors, and employees – change the terms with which they are willing to do business when the firm reveals that its managers are opportunistic or that the firm has poor internal controls. Other types of misconduct, however, are associated with small reputational losses. These include environmental violations (Karpoff, Lott, and Wehrly 2005) and frauds of unrelated parties (Karpoff and Lott 1993; Alexander 1999; Murphy, Shrieves, and Tibbs 2009).

Our findings indicate that, in its impact on firm reputation, bribery is more like an environmental violation and less like consumer fraud. That is, firms do not suffer large direct or indirect penalties when they are caught bribing. When the bribe is accompanied by financial misrepresentation, in contrast, the penalties are large. This is consistent with Karpoff, Lee, and Martin (2008a,b), who find that the reputation loss from financial misreporting is large.

Our findings partially address the puzzle frequently raised about the FCPA: Why would the U.S. government pass a law that appears to harm U.S. firms as they compete with other companies from around the world?[4] It is possible to conjecture about the rationale for such a law. Perhaps the anti-bribery provisions serve as an umbrella bonding mechanism for U.S. companies, indicating that they are less likely than their foreign competitors to engage in post-contractual opportunism. Or perhaps the FCPA imposes larger constraints on some domestic firms than others, giving a competitive advantage to firms who are less constrained. Or perhaps the U.S. Congress passed the FCPA in a fit of moral outrage over discoveries about widespread bribery in the middle 1970s, without concern for its impact on U.S. firms' competitiveness.

While all of these conjectures are possible, our results indicate that they are not consequential. This is because the impacts on firms caught bribing – and only bribing – are relatively small. Since the penalties for bribery are small, the deterrence effect is likely to be small as well. That is, despite its name, the FCPA appears to have little impact on firms when they are caught bribing. The costs for financial misrepresentation are substantial. But when it comes to bribery, it is largely business as usual.

2. History of the FCPA

In 1975, the International Chamber of Commerce (ICC) established the Shawcross committee to recommend steps to combat corporate extortion and bribery. The following year, the former Prime Minister of Japan was charged with taking $2 million in bribes for assisting Lockheed in selling 21 jets to a Japanese airline. Subsequent revelations indicated that many U.S. firms were bribing foreign officials to obtain business and cooking their books to avoid detection by auditors and investors. Contemporaneously, congressional investigations into the Watergate scandal revealed that many corporations maintained slush funds to court favor from both domestic and foreign government officials. In response, the SEC proposed an amnesty period to encourage firms to conduct independent internal

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[4] As reported in section 2, over 30 countries are now signatories to anti-bribery resolutions, including the OECD's *Convention on Combating Bribery of Foreign Public Officials in International Business Transactions.* But until the late 1990s, the U.S. was unique in its anti-bribery laws.

investigations and voluntarily disclose questionable payments. More than 500 firms, including 100 firms in the Fortune 500, subsequently disclosed illicit payments that exceeded $300 million.

In response, Congress passed the Foreign Corrupt Practices Act of 1977 (FCPA). As amended by the Act, 15 U.S.C. §§ 78dd (30A in the Securities Exchange Act of 1934) prohibits any issuer, domestic concern, or other persons from obtaining anything of value by corruptly making payments. Before 1977, federal powers to prosecute foreign bribery relied primarily on anti-fraud and money laundering provisions of the Currency and Foreign Transactions Reporting Act and the Travel Act. Enforcing these statutes proved difficult because they required proof of intent (*scienter*), racketeering, or failure to report foreign currency transactions. The FCPA, for the first time, imposed criminal and civil penalties for anything of value to a foreign official to induce favorable treatment.

Pre-FCPA investigations revealed that many firms maintained secret accounts to facilitate their bribe payments. To aid in the prosecution of its anti-bribery rules, the FCPA also added three financial reporting provisions: (i) 15 U.S.C. §§ 78m(b)(2)(A) which requires firms to keep and maintain books and records that accurately reflect all transactions; (ii) 15 U.S.C. §§ 78m(b)(2)(B), which requires firms to devise and maintain a system of internal accounting controls; and (iii) 15 U.S.C. §§ 78m(b)(5), in which no person shall knowingly circumvent or knowingly fail to implement a system of internal accounting controls or knowingly falsify any book, record, or account.[5] These provisions allow the SEC to prosecute bribery through financial misrepresentation without demonstrating intent. As our data indicate, most enforcement actions for bribery invoke charges of financial misrepresentation as well. In fact, the charges of financial misrepresentation appear to matter more than the bribery charges.

Until the 1990s, other countries did little to discourage their nationals from bribing foreign officials. Some (e.g., Germany and France) even encouraged foreign bribes by making them tax deductible. This changed in 1996, when the Organization of American States adopted the Inter-American Convention. In 1997, members of the Organization for Economic Cooperation and Development adopted

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[5] Two additional rules were added by the SEC to the Code of Federal Regulations to aid in enforcement of these provisions for entities that have a security registered pursuant to Section 12 of the Securities Act: 13b2-1 (17 CFR 240 13b2-1) and 13b2-2 (17 CFR 240 13b2-2). See Maher (1981) for a description of the 1977 law that introduced these provisions.

the Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. As of November 2009, these agreements include 34 and 30 member nations respectively. The FCPA was amended in 1998 to align its language with that of the new Inter-American and OECD Conventions.

3. Data description

Our sample consists of all enforcement actions initiated by the SEC and DOJ from 1978 through August 2009 for foreign bribery under the Foreign Corrupt Practices Act of 1977. Most (95%) of the enforcement actions in our sample incorporate other charges, including insider trading, civil and criminal fraud, racketeering, and tax evasion. We document all such charges, and also track all related class action and derivative lawsuits associated with each enforcement action.

To identify the enforcement actions, we search for specific references to the bribery provisions of the FCPA (e.g. sections 78dd-1 through 78dd-3 and 30A) using the Lexis-Nexis FEDSEC:SECREL library and the PACER database.[7] To make sure we did not miss any bribery enforcement actions that used other provisions of the U.S. code and rules without including bribery charges explicitly, we also searched for the terms "bribery", "Foreign Corrupt Practices Act", and "FCPA," and read all the proceedings to determine if the enforcement act included the existence of illegal payments to foreign officials. Since September 19, 1995, the SEC has posted these releases on the SEC's website at http://www.sec.gov. The Department of Justice provided us additional enforcement data for the civil and criminal enforcement proceedings for which they were involved. Releases issued by the target firms pertaining to the enforcement actions, including related class action and derivative lawsuits, were gathered from EDGAR, PACER, and Lexis-Nexis' Business News, Legal Research, and General News categories.

The DOJ and SEC initiated a total of 116 bribery-related enforcement actions between 1978 and August 2009. Table 1, Panel A reports the sample distribution by the enforcement agency involved, the type of entity targeted, and the specific FCPA provisions invoked during the enforcement action. The

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[7] The Lexis-Nexis FEDSEC:SECREL library contains public releases from all SEC securities enforcement actions, and the PACER Service Center (pacer.psc.uscourts.gov) contains federal court documents.

DOJ has criminal and civil and criminal authority over all public and non-public entities that engage in foreign corrupt practices, including domestic and foreign firms as well as individuals. The SEC's civil and administrative authority extends only to those firms required to register with the Commission.

Of the 116 actions, 66 target U.S. firms with publicly traded stock and 9 target foreign firms with American Depository Receipts traded in US markets. This combined count of 75 actions constitute the sample analyzed in this study. The remaining 41 enforcement actions target individuals, foreign firms with no securities traded on US exchanges, and one foreign affiliate of a private US accounting firm (required to register with the SEC).[8] Of the 75 enforcement actions in our main sample, the DOJ participated in 53, the SEC participated in 60, and the two agencies cooperated in 38 of these actions.

In addition to its anti-bribery provision, the FCPA has financial reporting-related provisions pertaining to books and records, internal controls, and attempts to circumvent the Act's other provisions. Although all 116 enforcement actions involve bribery, only 98 invoke the FCPA's bribery provision. As yet, we are unable to explain this curiosity.[9] For the 75 enforcement actions in our analysis, the bribery provision was invoked in 59 actions (78.7%), the books and records provision was invoked in 64 actions (85.3%), the internal controls provision was invoked in 54 actions (72.0%), and the circumvention provision was invoked in 30 actions (40.0%). Fifteen actions (20.0%) include fraud charges under the 1933 Securities Act (section 17a) or 1934 Securities Exchange Act (section 10b).

Table 1 Panel B depicts the chronological distribution of the 75 enforcement actions in our main sample. Since 2001, the number of enforcement actions has averaged six per year. The high count of 14 in 2007 includes five cases in the UN Oil-for-Food bribery scandal. Most bribery violations occur over multiple years, and the second column reports the number of firms in violation in each year. The number of firms committing bribery violations peaked in 2002 at 42, including 14 that are part of the UN Oil-for-

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[8] The 41 actions also include three publicly-traded firms that lack CRSP and Compustat coverage, and the highly publicized action against U.S. Representative William J. Jefferson (D-LA). Jefferson was convicted of using his office to solicit bribes to promote telecommunications deals in Nigeria, Ghana and elsewhere; oil concessions in Equatorial Guinea; satellite transmission contracts in Botswana, Equatorial Guinea and the Republic of Congo; and development of different plants and facilities in Nigeria.

[9] In tests that are incomplete as of November 18, 2009, we are investigating the characteristics of firms that attract specific charges of bribery under FCPA provisions, and whether our test results are different for firms that do or do not.

Food bribery scandal. The final two columns present the number of firm and individual respondents by the first year implicated. In the 75 enforcement actions, 107 firms were named as respondents, including the 75 targeted firms and 32 additional firms, which include the target firms' subsidiaries or accountant firms. A total of 124 individuals were named, an average of 1.65 individual respondents per action.

Table 2 displays the sample across industries and firm size deciles. Fully 47 (62.7%) of the sample firms are in manufacturing. No other industry contributes as much as 10% of the sample. A Chi-square test of proportionate frequencies rejects the hypothesis that the sample is distributed equally across industries ($p < 0.0001$). There also is a concentration among large firms, as the largest decile draws 39 (52.0%) of the enforcement actions and the top three deciles draw 55 (73.3%) of the actions. A Chi-square test of proportionate frequencies also rejects the hypothesis that the sample is distributed equally across size deciles ($p < 0.0001$). Large (top decile) manufacturing firms constitute 38.7% of all bribery enforcement actions.

One of the necessary requirements for a payment to be considered a bribe is that it must be paid with the purpose of receiving something of value. Table 3 Panel A, indicates that 61 of the 75 (81.3%) enforcement actions involve bribes that were intended to stimulate sales. Eleven (14.7%) were intended to secure political or regulatory favor in the foreign country. As an example, Frederic Bourke, Jr., a founder of Dooney and Bourke, was convicted for bribery for helping Victor Kozeny in an attempt to gain control of the privatization process for the state-owned oil company in Azerbaijan. The remaining three bribes (4.0%) were attempts to reduce a tax liability. For example, the SEC brought administrative action against Baker Hughes in 2001 when an Indonesian official solicited and received a $75,000 bribe for the purpose of reducing a $3.2 million tax assessment against PT Eastman Christiensen, an Indonesian corporation headquartered in Jakarta and controlled by Baker Hughes.

Panel B of Table 3 presents summary statistics for the bribes paid and the magnitude of the expected business or tax relief they were meant to garner. The average bribe is $36.6 million for the 71 of the 75 enforcement actions for which bribe amounts are available. The median bribe is $970,000. This difference reflects the influence of a right skew in the distribution of bribe payments. Siemens AG's paid

$1.79 billion in bribes in ten countries for business valued in excess of $10 billion, and Montedison SpA and Halliburton each paid bribes of more than $100 million. For 53 of the enforcement actions, SEC and DOJ releases also report on the value of the benefits that the bribes were intended to garner. The mean expected benefit is $493.93 million, and the median is $25 million. The right-hand column in Panel B reports the on the ratio of the bribe to the expected benefit. The mean of 9.15% indicates that, on average, bribes amount to 9.15 cents for each dollar of benefit that the bribing firm expected to reap.

The bribes were paid in 81 different countries. Table 3, Panel C lists the countries and the frequency with which they were named in enforcement proceedings. Also listed is Transparency International's 2008 Corruption Perceptions Index (CPI) for each country and its corresponding rank. The CPI draws on expert and business surveys to measure the perceived levels of public-sector corruption in a country. The 2008 CPI scores 180 countries on a scale from zero (highly corrupt) to ten (highly clean) and ranks the countries. Rank = 1 represents the least corrupt country and rank = 180 the most corrupt. The most named country in the enforcement actions is Iraq; 16 of the 17 actions result from enforcements related to the U.N. Oil-for-Food scandal. Eleven bribes were paid in China (CPI Rank = 121) and ten bribes were paid in Nigeria (CPI Rank = 72). The average CPI for all countries named in bribery enforcement actions is 3.7. This corresponds to the bottom tercile (most corrupt) of countries and indicates that bribery occurs where there is a recognized perception of public-sector corruption.[10] The average country rank is 95, which corresponds to the more corrupt half of the countries surveyed.

4. The enforcement process

Figure 1 depicts the typical sequence of events surrounding a federal bribery enforcement action.[11] Given our interest in the cost of engaging in bribery, we use the term "action" to signify the complete chain of regulatory enforcement proceedings that relate to the firm that would receive benefit from making the bribe. Enforcement actions typically include a mixture of proceedings that may directly implicate a firm, other affiliated firms, or individuals associated with the firm. The SEC publicly

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[10] While the CPI is constructed to range from 0 to 10, the actual CPI scores range from 1.0 to 9.3.
[11] For more information, see the Securities and Exchange Commission (1973), Lucas (1997), or Cox et al. (2003).

discloses these proceedings by filing Administrative Releases or Litigation Releases while the DOJ discloses them in a news release.

Figure 1: Timeline of an Enforcement Action
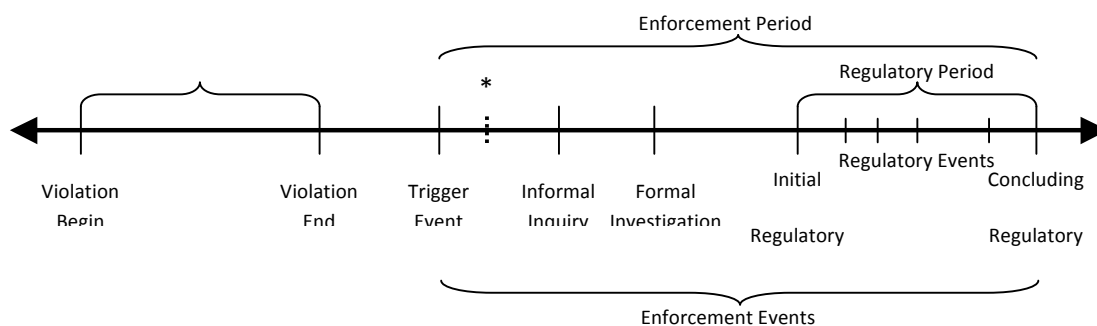
* The initial filing of a private lawsuit usually occurs soon after the Trigger Event.

Enforcement actions often follow a conspicuous announcement that draws regulator's scrutiny. These events, labeled *trigger events*, are self-initiated disclosures of potential problems. Common trigger events include self-disclosures of malfeasance and the initiation of an internal investigation. Investigations and litigation by other federal agencies such as the Department of Defense and Environmental Protection Agency are another source of trigger events, along with delayed SEC filings, restatements, auditor changes, and management departures. Third party and whistleblowers account for over 10% of the events, most as a result of the United Nation's Independent Inquiry Committee chaired by Paul Volcker, which examined allegations of corruption and fraud under the United Nations' Oil-for-Food Program in Iraq. For 49 (65%) of the 75 events in our sample, we identify the trigger events from references found in subsequent federal filings. For the remaining 26 events, we identify trigger events from Lexis/Nexis or Factiva news searches.

Following a trigger event, the SEC may request additional information through an informal inquiry that, if warranted, grows to a formal investigation. The DOJ, in contrast, may elect to use its subpoena powers to compel entities to provide information. During the investigation period the targeted firm may issue a press release indicating that it is the target of an SEC informal inquiry or formal investigation, or received a subpoena from the DOJ. We label such announcements *investigation events*.

There are 68 investigation events in our sample – 21 informal inquiry announcements and 47 formal investigation announcements. Some firms issue both types of announcements, so the 68 investigation events cover 52 of the 75 (69.3%) enforcement actions.

After an investigation, regulators can proceed several ways. The SEC can initiate administrative and civil proceedings against violators while the DOJ can bring separate or parallel civil and criminal actions. Dropped investigations are not reported and do not appear in the sample. We also do not include three actions initiated against Northrop Grumman, Harris Corp., and American International Group, in which all charges were dismissed. Prior to filing civil litigation charges, the SEC sends the target a "Wells Notice," indicating its intent to file charges and providing the target a last chance to respond with reasons that civil charges should not be filed. Some enforcement actions are resolved immediately upon the SEC's initial release of information about the case, but most actions unfold over multiple regulatory events. As indicated in Table 4, an average enforcement action involves 0.57 administrative releases, 1.37 filings of civil actions, and 1.29 filings of criminal actions. The total number of all administrative, civil, and criminal releases is 243. In addition, 17 of the 75 actions had accompanying class action lawsuits related to the misconduct.

Table 5, Panel A documents the complex nature of these enforcement actions by documenting all the charges included with the bribery enforcement actions. As described previously, Section 15 USC § 78dd-1, -2, and -3 – the bribery provisions – prohibits the payment of bribes to foreign officials and by issuers, domestic concerns, and persons other than issuers or domestic concerns. Everyone that does business in foreign countries is covered by at least one of the bribery provisions. As shown in Table 1, most – but not all – of the 75 enforcement actions (59) cite violations of at least one of the bribery provisions.

In addition, issuers or firms whose securities are subject to registration with the SEC also are subject to the three financial reporting provisions: Section 15 USC § 78m(b)(2)(A) (13(b)(2)(A) – the books and records provision; Section 15 USC § 78m(b)(2)(B) (13(b)(2)(B)) – the internal controls

provision; and Section 15 USC § 78m(b)(5) – the circumvention provision. Most (64) of the 75 enforcement actions cite violations of at least one of these financial reporting provisions.

In addition to the provisions placed into law by the FCPA, bribery enforcement actions cite many other violations. The most frequent charges include violations of rules regarding: Conspiracy (26); Securities fraud (16 under the Securities Exchange Act Section 10(b) and 8 under the Securities Act Section 17(a)); Reporting issues (16 under Section 13(a) of the Securities Exchange Act); wire fraud (13), aiding and abetting (9), and racketeering (6). Fraud is often linked to enforcement actions that include financial misrepresentation violations because failure to keep accurate books and records frequently coincides with intent to deceive or manipulate, thus triggering charges of fraud.

The SEC also uses rules under the Code of Federal Regulations as a basis for enforcement proceedings. As shown in Table 5 Panel B, some of the more frequent rule violations cited in bribery enforcement actions include falsification of records (25), annual reports (15), antifraud (15), intent to defraud (14), and quarterly reports (11).

5. The penalties for bribery

In this section we investigate the consequences to firms that are prosecuted for bribery. We examine the legal penalties, share price effects, effects on the cost of capital, effects on operating performance, and other organizational changes that accompany a bribery enforcement action.

5.a. Legal penalties

The SEC and DOJ can impose both monetary and nonmonetary penalties on firms and individuals for bribery. The monetary penalties include fines and judgments awarded via civil or criminal actions. The nonmonetary penalties include cease and desist orders, injunctions, trading suspensions, and debarments that keep individuals from serving as officers or directors of public corporations, or as accountants for SEC-related filings. Nonmonetary penalties also include such criminal sanctions as prison sentences and home detention. To estimate the importance of such penalties, we collected

information on all types of penalties imposed against firms by regulators or through class-action lawsuits

through August 31, 2009. (At this time, 12 of the 75 enforcement actions are still ongoing and could lead

to additional penalties. So these numbers understate the full amount of the penalties for these actions.)

Panel A of Table 6 summarizes the monetary penalties. The mean penalty imposed by regulators

on firms and individuals is $56.06 million. The mean, however, reflects several large outliers, including a

penalty of $800 million levied against Siemens and $579 million against Halliburton/KBR, both of which

had bribery programs extended over many years. The median penalty is only $0.65 million. We get

similar results if we focus only on the penalties that are imposed on firms, excluding any amounts

imposed on individuals. Class action lawsuits were filed in 16 of the 75 cases, resulting in a mean

settlement of $13.59 million. Again, this amount reflects the influence of outliers, as the median

settlement is zero. Summing all monetary penalties on firms from both regulators and private lawsuits,

the mean is $52.74 million and the median is $0.68 million. These results indicate that monetary

penalties of some type are imposed in most bribery actions. In some cases the penalties are large. But for

the median action the penalty is small.

An important distinction arises when we partition the 75 cases by using information on the

specific charges brought. As reported in Table 5, most bribery actions include non-bribery charges. The

most common type of other charge is of financial misrepresentation, identified as 13(b)(2)(A),

13(b)(2)(B), or 13(b)(5) in Table 5. The defendant firm faced at least one of these charges in 64 of the 75

actions in our sample. Frequently, the firm violated financial reporting rules in an attempt to hide its

bribe payments.[12] In the remaining 11 enforcement actions, the SEC and DOJ brought charges relating to

bribery but did not charge the firm with misrepresenting its financial statements.

As reported in Table 6, the legal penalties are substantially larger when charges of financial

misrepresentation are included. The mean penalty imposed by SEC and DOJ actions is $64.23 million,

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[12] As an example: "…Siemens AG used off-book accounts to make corrupt payments, entered into purported
business consulting agreements with no basis, hired former Siemens employees as purported business consultants to
make corrupt payments, used false invoices to justify payments to business consultants, mischaracterized corrupt
payments as legitimate expenses, and limited the quality and scope of audits of payments to business consultants"
(Shearman & Sterling, 2009, p. 31).

compared to $8.56 million for bribery-only cases. The difference is statistically significant at the 10% level. Similar differences are found for the penalties imposed on firms, class action awards, and total penalties imposed on firms.[13] This suggests that most of the monetary penalties are related to financial misconduct, not bribery. When the misconduct involves only bribery, the penalties are much smaller.

The data in Panel B indicate that a similar pattern emerges when we examine some of the non-monetary sanctions. The SEC imposed sanctions against a total of 60 firms in the sample, but only one of these firms was charged only with bribery. A common non-monetary sanction includes an SEC appointment of an internal monitor. For example, the SEC appointed a monitor for DaimlerChrysler after the firm's secret South American bank accounts for bribing foreign officials were revealed by a whistleblower. Bribery actions that also involve financial misrepresentation account for all of the cease and desist orders, trading suspensions, charter revocations, and debarments of officers, directors, and attorneys.

The breakdown of criminal sanctions is more even across the accounting-related and bribery-only cases. The DOJ imposed sanctions on 53 firms, including 10 bribery-only firms. Accounting-related cases average 1.8 criminal sanctions versus 2.0 for bribery-only cases. The average number of prison sentences is higher in bribery-only cases (0.55) than cases involving financial misrepresentation (0.14). But the length of the prison sentences handed out is much longer when financial misrepresentation occurs (147 months versus 24 months). The sentences involving probation, halfway house assignment, home detention, and community service also are longer when financial misrepresentation is present. Only supervised release periods are longer for bribery-only cases.

These results indicate that firms facing bribery charges sometimes face monetary penalties, and that some individual managers face such sanctions as debarment and criminal sanctions. The penalties tend to be much larger when the bribery charges are accompanied by charges of financial

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[13] Although a total of 16 shareholder class actions were filed, monetary penalties were awarded in only three actions (11 of the class actions were dismissed; two are pending). The mean settlement for these three cases is $72.47 million. All three of these settlements were for charges of fraud under section 10b-5 of the Securities Exchange Act, and none were directly due to bribery. Federal District Courts and the Supreme Court have held that no private right of action exists under either the bribery or accounting provisions of the FCPA.

misrepresentation. The legal penalties imposed for bribery-only violations, in contrast, are relatively small. The one exception to this trend involves prison sentences, which are more frequent in the bribery-only cases. Thus, legal penalties tend to be significantly higher for accounting-related actions than for bribery-only actions, except for a few cases in which individuals have been sent to prison for foreign bribery.

5.b. Share value effects

Table 7 reports on the share value effects of announcements that a firm is the subject of an enforcement action for bribery. Abnormal returns are calculated by subtracting the CRSP value-weighted index of all stocks from the raw return of the firm's equity. Parametric t-statistics for the mean abnormal returns are calculated from the cross-section standard error of abnormal returns. We also report median abnormal returns and significance levels using the Mann-Whitney test.

Panel A reports the one-day market-adjusted return upon the initial revelation. Averaged over all 75 firms, the mean one-day return is –4.99% and the median is –1.29%, with both parametric and non-parametric test statistics significant at the p=.001 level. Thus, the initial revelation of a bribery enforcement action is associated with a significant decrease in share values. There is substantial variation in the share price impact, however, depending on the nature of the initial revelation. For four events in our sample, news of an enforcement action accompanies an earnings-related announcement. For these four firms the mean one-day share return is –23.6%. When the news is conveyed with an earnings restatement, the mean one-day return is –33.07%. In contrast, initial revelations via a whistleblower, class action lawsuit, or DOJ/SEC investigation are associated with small and statistically insignificant share price effects. This suggests that the value impact is affected by the circumstances surrounding the bribery action.

One such important circumstance is whether the action eventually includes charges of financial misrepresentation. For the 64 cases in which the firm eventually was found to have misrepresented its financial statements, the mean one-day stock price reaction is –5.66%. The largest share value losses

occur when the initial revelation includes negative information about the firm's earnings or a restatement. In the 11 enforcement actions that do not include charges of financial misrepresentation, the mean stock price reaction is –1.15% and is significant only at the 10% level. The difference in the one-day share price reactions between the two subgroups, -4.51%, is significant at the 5% level. Thus, the share value impact is relatively small for actions that do not involve financial misrepresentation charges.

Panel B reports on announcements related to the enforcement actions that follow the initial revelation date. In our sample, only four enforcement actions are resolved on the initial revelation. The rest involve follow-up announcements about the nature of the misconduct and the exact penalties imposed by the SEC and DOJ. In total, there are 310 such follow-up announcements. As reported in Panel B, the mean one-day market-adjusted share price reaction for these announcements is –2.99%, and the median is –1.26%. The drops in share values decrease monitonically through the fifth announcement, and the average drops are statistically significant on the second through fourth announcements. Some of the later announcements also contain information that moves share prices. The mean share price reaction for the 81 announcements classified as "9th or higher," for example, is –1.09% (significant at the 10% level using the t-statistic). These results indicate that pertinent news about the misconduct and the regulatory penalty is conveyed to investors even after the initial revelation of misconduct.

As in Panel A, however, the share value losses are much larger for the subset of firms that face charges of financial misrepresentation in addition to bribery. The mean share price reaction for the 269 subsequent announcements for events that include misrepresentation is –3.25. The mean for the 41announcements involving firms that face only bribery charges, in contrast, is –1.26. The difference in means is significant at the 5% level.[14]

The data in Panel B indicate that the full extent of a firm's losses due to the revelation of bribery charges is not fully reflected in the initial announcement. To capture a firm's total losses, we cumulate

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[14] As indicated in Figure 1, many enforcement actions are accompanied by class action lawsuits filed by investors. Most class actions are filed soon after their associated trigger announcements, but some are filed much later, even after the federal disclosure of a resolution. The mean abnormal return of the 29 class action announcements for which we have returns data is -7.52% (-2.51%). These results are similar to those reported by Gande and Lewis (2009), who also examine class action lawsuits.

the abnormal share returns over all announcements relating to its enforcement action. The mean total loss is –13.09%. For actions with financial misrepresentation charges, the mean is –14.33%, and for actions without such charges, the mean is –6.05%.

Panel C presents additional evidence about the nature of the information conveyed in the various announcements related to the bribery enforcement actions. In this panel we partition all announcements according to the specific information in the announcement. A total of 71 of the 75 enforcement actions play out over a multiple number of information events. Some of these events contain no information about, or mention of, bribery at all(!). As part of a bribery enforcement action, for example, the SEC may issue a release that describes the firm's failure to report its earnings accurately, with no allusion to any bribery charges.

Among the 64 bribery actions with related charges for financial misrepresentation, there are a total of 333 information events. A total of 122 of these announcements are about financial misrepresentation only, and the mean share price reaction for these announcements is -6.13%. The remaining 263 announcements include discussion (and possibly charges) of bribery. The mean one-day share price reaction for these 211 announcements is -2.32%. The difference, -3.81%, is significant at the 1% level. This indicates that the largest price movements occur on news about financial misrepresentation, not bribery.

A further comparison is provided by the 52 information events for the 11 actions that do not include any charges of financial misrepresentation. The mean share price reaction for these 52 events is -1.24%. Thus, announcements that reveal the presence of illegal bribery and the associated regulatory penalties are associated with negative share price reactions. But the reactions are small compared to announcements that include information about financial misrepresentation. Indeed, the large share value losses for bribery enforcement actions are driven primarily by news of misrepresentation, not of the bribery per se.

5.c. The determinants of share value losses

Table 8 reports on regressions that examine the determinants of firms' share value losses. The dependent variable in each regression is the cumulative share value loss associated with each firm's enforcement action (multiplied by –1). The key regressors include the size of the penalty, a dummy variable for actions that include accounting charges, and a dummy variable for actions that include accounting charges but do not include fraud charges. We include dummy variables for firms that the SEC and/or DOJ indicate cooperated with the investigation, for firms that declared bankruptcy during the enforcement period, and for bribery actions related to the Iraq oil-for-food scandal. We also include the CPI corruption index, which reflects the perceived level of corruption in the country in which the bribe occurred. If a firm is charged with bribery activities in more than one country, we average the corruption indices over all affected countries. This latter control is included to measure any differential effects on firm value that could accrue as investors learn about the country in which the bribery occurred. It is possible, for example, that bribery in countries with a reputation for corruption is less of a surprise than bribery in other countries, suggesting a relatively small share price reaction in such cases.

Model 1 reports results using data on all 75 bribery-related enforcement actions. The share value loss is significantly larger for bribery actions that include charges of financial misrepresentation. This result is consistent with the univariate comparisons reported in Table 7. Controlling for other firm characteristics, the cumulative loss for actions that include accounting charges is 28.96% larger than for bribery-only charges. Note, however, that when the accounting charges do not include fraud charges, the incremental effect of the accounting charge is slightly negative (= 28.96% – 29.36% = –0.40%). This indicates that the share value losses associated with bribery enforcement actions can be attributed to the accompanying charges of fraud for financial misrepresentation, not to the bribery charges per se, and not to accounting-related charges that do not include fraud.

Among the control variables, the share price reaction is negatively related to the oil-for-food dummy, indicating that the announcement day equity losses for these firms were about 12% smaller than for other firms in the sample. The share price reaction is not significantly related to the variables for the

size of the regulatory penalty, corruption perception index, bankruptcy, or cooperation with the investigation.

The second and third columns in Table 8 report on the cross section of abnormal returns for the two subsets of bribery enforcement actions. Removing the 11 bribery-only observations improves the model's significance from an F-statistic of 4.273 to 6.205, suggesting that these 11 cases are qualitatively different from the other actions, which include misrepresentation charges. Beyond that, the results remain consistent with those for the overall sample. Among the 11 bribery-only actions, the share value loss is not significantly related to any of the regressors.

Together, these results indicate that the share price reaction is driven primarily by the nature of the misconduct. In particular, bribery actions that are associated with financial fraud are associated with very large share value losses. Bribery actions that have no related charges of financial misrepresentation, or no such related charges of financial fraud, have small share value losses.

5.d. Effects on the cost of capital

In this section we examine whether bribery charges are associated with a subsequent change in the firm's cost of capital. Our inquiry is related to a stream of literature that investigates whether firms experience a reputation loss when they are discovered to engage in illegal or opportunistic behavior.[15] A reputation loss is the present value of any increase in costs and decreases in revenues that accrue as the firm's stakeholders and counterparties change their terms of contract with the firm. Firms that are charged with bribery could experience a reputation loss if they experience a higher cost of capital, i.e., if investors impose a market penalty on these firms. Consistent with such a reputational penalty, Graham, Li and Siu (2008) find that firms that restate earnings subsequently have higher costs of debt. Murphy, Shrieves, and Tibbs (2009) find that firms accused of frauds also experience an increase in their costs of capital. These results indicate that investors require a higher expected return when investing in firms that

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[15] Reputation losses are important for false advertising (Peltzman 1981), product recalls (Jarrell and Peltzman 1985), air safety disasters (Mitchell and Maloney 1989), frauds of private parties (Karpoff and Lott 1993; Alexander 1999; Murphy, Shrieves, and Tibbs 2009), investigations of IPO underwriters (Beatty, Bunsis, and Hand 1998), defense procurement fraud (Karpoff, Lee, and Vendrzyk 1999).

self-identify as having poor internal controls, opportunistic managers, or a flawed financial reporting system. That is, these firms experience a reputation loss that manifests as a higher cost of capital.

We measure the cost of equity using the method introduced by O'Hanlon and Steele (2000). This method uses financial statement data to infer the equity cost of capital by estimating the following equation:

$$ROE_{it} = k_0 + k_1 \, SURG_{it} + e_{it}, \tag{1}$$

Here, ROE_{it} is the return on equity, measured as net income in period t divided by the book value of equity at the end of period $t\text{-}1$. $SURG_{it}$ is "scaled unrecorded goodwill," measured as the difference between the market value of equity and the book value of equity in year t, divided by the book value of equity at $t\text{-}1$. O'Hanlon and Steele (2000) show analytically and empirically that the intercept from this regression, k_0, is a measure of the cost of equity capital.

To estimate whether a firm's cost of capital is affected by a bribery enforcement action, we estimate a variation of equation (1):

$$ROE_{it} = k_0 + k_1 \, SURG_{it} + k_2 \, POST\text{-}BRIBERY_{it} + k_3 \, GROUP\text{-}FLAG_{it} + e_{it}, \tag{2}$$

$POST\text{-}BRIBERY_{it}$ is a dummy variable equal to one only in the years after the revelation of the misconduct. k_2 measures the mean change in the cost of equity capital for these firms. $GROUP\text{-}FLAG_{it}$ is a dummy variable equal to one for the bribery sample firms only, and is used for tests in which we include control firms. k_3 measures the change in the cost of equity capital for these firms. $POST\text{-}BRIBERY_{it}$ is a dummy variable set equal to one for firms in the bribery sample for all years after the year of the trigger date in the bribery enforcement action. k_2 measures the mean change in the cost of equity among after the bribery is revealed.

Table 9 presents estimates of equation (2). Models 1, 2, 5, and 6 include data only from the 75 firms in the bribery sample. Models 3, 4, 7, and 8 include both bribery and 75 matched control firms. The control firms are selected from all Compustat-listed firms other than the 75 firms in the bribery sample. For each sample firm, we select as a control the firm that most closely matches its propensity score. The propensity scoring method and results are described in the Appendix. Models 1 through 4 are estimated using a pooled OLS regression and Models 5 through 8 are estimated using fixed firm effects. Each regression is estimated using five years before and five years after the year in which the bribery was publicly revealed.

In Model 1, the estimate of k_0 is 10.48%. The estimate of k_2 is 3.46%, which indicates that the cost of equity capital increases by 3.46 percentage points in the post-bribery period, on average. In Model 2, we partition *POST-BRIBERY$_{it}$* into separate dummy variables for firms that face financial misrepresentation charges and those that face only bribery charges. The estimate of k_2 for firms in the misrepresentation group is 4.17%, whereas for firms facing only bribery charges the estimate of k_2 is – 0.55% and is statistically insignificant. Thus, the post-bribery increase in the equity cost of capital occurs among firms that also face charges for financial misrepresentation. For firms facing only bribery charges, the impact on the cost of equity capital is negligible.

The results in the other models reported in Table 9 are similar. In each case, the cost of equity capital increases in the post-bribery period, but only for firms that are subject to charges for financial misrepresentation. This indicates that firms facing bribery and misrepresentation charges experience a reputation loss attributable to a higher cost of capital. This is consistent with the results in Graham, Li and Siu (2008). Both results indicate that news of financial impropriety imposes a reputation loss on the firm that manifests as a higher cost of capital. Firms charged only with bribery, in contrast, do not experience a higher cost of capital. This implies that investors do not require a higher expected return when they learn that the firm is charged with foreign bribery.

5.e. Operating performance changes

In addition to affecting a firm's cost of capital, firms that are charged with foreign bribery could

suffer a reputation loss if their customers or suppliers change the terms with which they are willing to

trade with the firm. For example, potential customers could refuse to buy from firms that are found to

engage in bribery. Or the firm's costs could increase as its suppliers withhold trade credit or refuse to deal

with a firm that has been charged with bribery, and perhaps faces operating difficulties.

To investigate such effects, we examine whether the revelation of bribery is associated with a

change in operating income. Table 10 reports on changes in two measures of return on assets: (i)

EBIT/Assets, and (ii) *EBITDA/Assets*. For all 150 sample and control firms, we calculate the change in

ROA as:

$$\Delta ROA_i = (\sum_{t=+1}^{t=+3} ROA_{it} / 3) - (\sum_{t=-3}^{t=-1} ROA_{it} / 3)$$

That is, ΔROA_i is the difference between firm i's average *ROA* in the three years after the revelation of

bribery (years +1 through +3) and the average *ROA* in the three years before the revelation (years –3

through –1).

In Panel A of Table 10, we define ROA_{it} as $EBIT_{it}/Assets_{i,t-1}$. Both the sample and control firms

experience slight decreases in *ROA* around the year of the bribery enforcement action, but both changes

are statistically insignificant. The difference also is insignificant. Similar results obtain for the subset of

bribery actions that include misrepresentation charges and the subset of actions that have only bribery

charges. Panel B reports results when ROA_{it} is defined as $EBITDA_{it}/Assets_{i,t-1}$. There is no difference in

ΔROA for the accounting-related and bribery-only actions. ΔROA is significantly larger (at the 10%

level) for the control firms in the bribery-only sample than the control firms in the accounting-related

sample. But the difference-in-difference result is statistically insignificant. That is, there is no significant

difference between the control firm-adjusted *ROA* between the accounting-related and bribery-only

subsamples. These results indicate that there is no significant change in operating performance around

the revelation of bribery. The decreases in share value that we observe among the accounting-related

subsample appear to reflect an increase in these firms' costs of capital, not a change in operating performance.

5.f. Organizational changes[16]

Table 11 reports on the long-term survival of the firms targeted for bribery enforcement actions. The view that bribery actions are very costly for the target firms suggests that firms targeted for bribery actions are less likely to survive than other firms. Indeed, the quote from KPMG at the beginning of this paper argues that the revelation of bribery threatens the continued viability of a firm.

Among all 75 firms in the bribery enforcement sample, 41 survived as stand-alone entities as of August 31, 2009. By comparison, 49 of the matched control firms survived. The difference, however, is more pronounced among accounting-related firms than bribery-only firms. Among the former, 34 of 64 firms survived, compared to 43 of the 64 control firms. Seven of the 11 bribery-only firms have survived, compared to only six of the 11 control firms.

The data in Table 11 reveal the reasons some firms have not survived. Financial misrepresentation-related bribery firms were both acquired and failed (or delisted) more frequently than their control firm counterparts. Among the bribery-only firms, all four that did not survive were acquired.

Overall, these data provide weak evidence that firms charged with bribery experienced a slightly higher rate of failure and merger than their matched control firms. And once again, the higher rates of failure and mergers are concentrated among the subset of firms that also faced charges of financial misrepresentation. None of the comparisons we report, however, are statistically significant, so we cannot draw strong inferences from these comparisons.

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[16] We emphasize the preliminary nature of the tests reported here. In tests that are still being tabulated, we are examining other aspects of the long-term consequences to firms that are targeted for enforcement actions.

6. Conclusion

Bribery enforcement actions impose substantial costs on defendant firms. Announcement day share price reactions average –4.99% and, over the course of the enforcement action, firms lose 13% of their share values. These losses are not significantly related to the legal penalties imposed by the SEC and DOJ. They also do not appear to reflect a change in these firms' operating performance. Rather, the public revelation of bribery and the ensuing enforcement action is associated with an increase in the cost of capital.

It turns out, however, that neither the large losses in share values nor the increase in the cost of equity are attributable to the bribery itself. Rather, they are associated with charges of financial misrepresentation that accompany most enforcement actions for foreign bribery. Among firms that face discipline for bribery and financial misrepresentation, the one-day change in share value averages –5.66% and the cumulative change averages –14.33%. For firms that face charges for bribery, but no charges for financial misrepresentation, the one-day share value loss (–1.15%) and cumulative loss (–6.05%) are much smaller. The increase in the cost of equity capital also concentrates among firms charged with financial misrepresentation. Among firms that do not face such charges, there is no significant change in the cost of capital.

These results inform two debates over the role of anti-bribery rules, at least as they have been enforced in the United States. The first debate is whether it serves or harms U.S. interests, and those of U.S. firms, by restricting the ability of U.S. companies (and U.S.-listed firms) to pay bribes. By criminalizing bribery, the U.S. may harm the ability of its domestic firms to compete in globally competitive markets. On the other hand, such a restriction might serve the interests of U.S. companies, which can more credibly commit to avoiding some types of opportunistic behaviors.

Our results indicate that the debate over the restriction on foreign bribery is, to some extent, moot, because the consequences to firms for bribery, and bribery alone, are relatively small. To be sure,

the FCPA has led to criminal sanctions, and even jail time, to a small number of individuals. But the impact on firms that face bribery charges is relatively small.

The second debate is over the motive behind and purpose of the FCPA. Our results indicate that the restrictions on foreign bribery have been relatively inconsequential. In addition to its anti-bribery provisions, however, the FCPA also granted new powers to the SEC to discipline financial misrepresentation. In practice, the financial reporting provisions of the FCPA have been used much more frequently than the bribery provisions. And the consequences to firms from financial misreporting are much more significant than those for bribery per se. These results indicate that the main effect of the FCPA has been to enable regulatory discipline for financial misrepresentation, which can be a very costly activity for investors. When it comes to bribery, in contrast – and despite the name of the act itself – it is business as usual.

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Table 1. SEC and Department of Justice Bribery-Related Enforcement Actions, 1978-2009

Panel A – Enforcement Actions by Entity Type

All 116 SEC and DOJ enforcement actions from 1978 through August 31, 2009 under FCPA bribery provisions 15 USC §§ 78dd-1 through 78dd-3 and 30A. This represents the universe of enforcement actions for foreign bribery-related violations. Columns indicate regulatory body (DOJ or SEC) involvement and which FCPA provisions were violated. Rows report the type of entity involved, 75 entities that are covered and 41 entities that are not covered by both CRSP and Compustat.

Entity Type	N	DOJ	SEC	Bribe 78dd/ 30A	Books & Records 13(B)(2)(A)	Internal Controls 13(B)(2)(B)	Circum-vention 13(B)(5)	Fraud 17(a)/ 10(b)
Main sample of 75 firms:	75	53	60	59	64	54	30	15
-Public US company	66	45	52	52	56	46	27	14
-Foreign company with US ADRs	9	8	8	7	8	8	3	1
Other entity (not included in tests)	41	40	4	39	5	4	1	
Total	116	93	64	98	69	58	31	15

Table 1. SEC and DOJ Bribery-Related Enforcement Actions, 1978-2009 (continued)

Panel B – Annual Distribution of Enforcement Actions of Foreign Bribery

Annual distribution of the 75 SEC and DOJ enforcement actions for foreign corrupt payments under 15 USC §§ 78dd-1 through 78dd-3 and 30A. These are all enforcement actions for foreign bribery-related violations for entities listed on in both CRSP and Compustat. The columns indicate the calendar year and the number of enforcement actions and violations that occurred during those years, while the last two columns indicate the number and respondant type (firm or individual) named in the enforcement actions that year.

Year	# Enforcement Actions	Violation Years	# Firm Respondents	# Individual Respondents
1977	0	7	0	0
1978	4	7	4	13
1979	1	3	1	0
1980	1	4	1	0
1981	2	4	1	2
1982	1	3	1	2
1983	0	3	0	0
1984	0	2	0	0
1985	0	4	0	0
1986	1	4	1	1
1987	0	5	0	0
1988	1	6	1	0
1989	1	6	2	1
1990	1	6	1	5
1991	1	4	2	4
1992	0	3	0	0
1993	1	4	1	0
1994	1	7	1	2
1995	0	6	0	0
1996	1	12	1	0
1997	1	12	1	6
1998	1	15	3	2
1999	2	19	3	0
2000	1	29	1	0
2001	5	39	7	14
2002	3	42	4	10
2003	2	37	1	24
2004	4	23	6	5
2005	5	15	8	7
2006	6	9	5	12
2007	14	2	21	5
2008	9	1	24	7
2009	6	0	5	2
Total	75	342	107	124

* August 31, 2009.

Table 2: Distribution of Bribery Enforcement Actions by Industry and Firm Size

Distribution of the 75 actions for foreign bribery under the FCPA against publicly-traded firms from 1978 – 2009* partitioned by 2-digit SIC-based industries and by sized-based deciles of the firm at the beginning of the violation. SIC codes are taken first from EDGAR if available, then COMPUSTAT, CRSP, and Disclosure respectively. Equity size deciles are taken from CRSP NYSE/AMEX/NASDAQ portfolio assignments. Tests of proportionate frequencies between the sized-based deciles and the 2-digit SIC based industries are rejected with Chi-Squares of 111.35 and 146.48 respectively, both p-values < 0.0001.

2-digit SIC Brackets	Industry	Total Actions	Sized-Based Deciles									
			Larger Firms							Smaller Firms		
			10	9	8	7	6	5	4	3	2	1
01-09	Agriculture, Forestry & Fishing	2		1	1							
10-14	Mining	7	2	3			2					
15-17	Construction	1						1				
20-39	Manufacturing	47	29	1	6	3	2	3		1	2	
40-49	Transportation, Communication, Utility Services	7	3	2	1		1					
50-51	Wholesale Trade	5	1			1		2		1		
52-59	Retail Trade	0										
60-67	Finance, Insurance, & Real Estate	0										
70-89	Services	6	4		1		1					
90-98	Government	0										
	Total	75	39	7	9	4	6	6	0	2	2	0

* August 31, 2009.

Table 3: Bribery-Related Enforcement Actions

Distribution of the 75 actions for foreign bribery under the FCPA against publicly-traded firms from 1978 through August 31, 2009 reporting the frequency of the intended effect of the bribes (panel A), the dollar amount of the bribe (panel B), and the country where the bribe transpired along with the country's 2008 *Transparency International* Corruption Perception Index (CPI) (panel C).

Panel A – Purpose for Payments

Benefit	Freq	Percent
Sales/revenue	61	81.3
Political/regulatory	11	14.7
Tax reduction	3	4.0
Total	**75**	**100.0**

Panel B – Amount of Payments

Amount	Freq	Percent	($MM)	Bribe (N=71)	Benefit (N=53)	Percent (N=53)
$10,000 - $99,999	10	13.33	Mean	36.59	493.93	9.15%
$100,000 - $999,999	27	36.00	Median	0.97	25.00	5.16%
$1,000,000 - $9,999,999	26	34.67	Min	0.01	0.32	0.03%
$10,000,000 - $99,999,999	4	5.33	Max	1,791.70	10,000.00	57.91%
> $100,000,000	4	5.33	Sum	2,597.73	26,178.39	
Not stated	4	5.33				
Total	**75**	**100.00**				

Table 3: Bribery-Related Enforcement Actions (continued)

Panel C – Countries and Transparency International's Corruption Perception Index

Country	Freq	CPI	Rank	Country	Freq	CPI	Rank
Iraq	17	1.3	178	Thailand	2	3.5	80
China	11	3.6	72	Trinidad and Tobago	2	3.6	72
Nigeria	10	2.7	121	Antigua[1]	1	7.7	16
India	7	3.4	85	Belgium	1	7.3	18
Indonesia	7	2.6	126	Benin	1	3.1	96
Saudi Arabia	7	3.5	80	Brunei[1]	1	7.7	16
Argentina	6	2.9	109	Costa Rica	1	5.1	47
Egypt	6	2.8	115	Dominican Republic	1	3	102
Brazil	5	3.5	80	Europe	1	6.7	30
Venezuela	5	1.9	158	Gabon	1	3.1	96
Mexico	4	3.6	72	Germany	1	7.9	14
Russia	4	2.1	147	Ghana	1	3.9	67
Angola	3	1.9	158	Guatemala	1	3.1	96
Colombia	3	3.8	70	Japan	1	7.3	18
Côte d´Ivoire	3	2	151	Kuwait	1	4.3	65
Ecuador	3	2	151	Liberia	1	2.4	138
France	3	6.9	23	Luxembourg	1	8.3	11
Greece	3	4.7	57	Middle East	1	3.8	87
Iran	3	2.3	141	Morocco	1	3.5	80
Italy	3	4.8	55	Netherlands	1	8.9	7
Kazakhstan	3	2.2	145	Niger	1	2.8	115
Malaysia	3	5.1	47	Norway	1	7.9	14
Taiwan	3	5.7	39	Pakistan	1	2.5	134
United Arab Emirates	3	5.9	35	Peru	1	3.6	72
Algeria	2	3.2	92	Poland	1	4.6	58
Bahrain	2	5.4	43	Portugal	1	6.1	32
Bangladesh	2	2.1	147	Qatar	1	6.5	28
Bolivia	2	3	102	Romania	1	3.8	70
Canada	2	8.7	9	Senegal	1	3.4	85
Chile	2	6.9	23	Spain	1	6.5	28
Israel	2	6	33	Turkey	1	4.6	58
Nicaragua	2	2.5	134	Turks and Caicos Islands[1]	1	7.7	16
Oman	2	5.5	41	Uganda	1	2.6	126
Panama	2	3.4	85	United Kingdom	3	7.7	16
Philippines	2	2.3	141	Uruguay	1	6.9	23
Singapore	2	9.2	4	Uzbekistan	2	1.8	166
South Korea	2	5.6	40	Viet Nam	2	2.7	121
				Average		3.7	95

1. United Kingdom

Table 4: Regulatory Events Stemming from Foreign Bribery-Related Enforcement Actions

Description of all regulatory events, private class actions, for the 75 foreign bribery-related enforcement actions under the FCPA in CRSP and Compustat. Administrative proceedings events refer to SEC actions through powers granted in the 1933 and 1934 Securities Acts. Civil charge events refer to SEC filing of charges in federal district courts, and criminal charge events refer to DOJ filings of criminal charges in federal district or state courts.

	Enforcement Actions With	Total # of proceedings	Per Enforcement Action
Enforcement proceedings	75		
Administrative	32	43	0.57
Civil	57	103	1.37
Criminal	49	97	1.29
Total regulatory events		243	3.24
Private class actions	17	17	0.23

Table 5: Types of Charges in Foreign Bribery-Related Enforcement Actions

Incidence of the specific charges brought in the 75 publicly traded enforcement actions for bribery violations in CRSP and Compustat since the passage of the FCPA. Panel A presents the frequency of civil and criminal U.S. Code violations, the legal citation, common alternative reference, and description of all charges brought on respondents in the foreign bribery-related enforcement actions. Panel B presents the frequency of rule violations in civil and administrative proceedings under the Code of Federal Regulations brought on respondents in the foreign bribery-related enforcement actions.

Panel A – U.S. Code Violations

Civil	Criminal		Citation	Alternative	Description
36	26	FCPA provisions	15 U.S.C. § 78dd-1	30A(a)(1)	Foreign bribery - by issuer (FCPA)
	16		15 U.S.C. § 78dd-2	30A(a)(2)	Foreign bribery - by domestic concern (FCPA)
	2		15 U.S.C. § 78dd-3	30A(a)(3)	Foreign bribery - by others (FCPA)
60	20		15 U.S.C. § 78m(b)(2)(A)	13(b)(2)(A)	Books and records (FCPA)
50	8		15 U.S.C. § 78m(b)(2)(B)	13(b)(2)(B)	Internal controls (FCPA)
25	9		15 U.S.C. § 78m(b)(5)	13(b)(5)	Knowingly circumvent internal controls (FCPA)
15	1	Non-FCPA provisions	15 U.S.C. § 78j(b)	10(b)	Manipulative and deceptive devices - purchase or sale in any security
16	0		15 U.S.C. § 78m(a)	13(a)	Periodical reports - issuer
8	0		15 U.S.C. § 78n(a)	14(a)	Proxies - solicitation
1	0		15 U.S.C. § 78t(a)	20(a)	Controlling persons
7	1		15 U.S.C. § 77q(a)	17(a)	Fraudulent interstate transactions - use of interstate commerce
	9		18 U.S.C. § 2		Aiding and abetting
	26		18 U.S.C. § 371		Conspiracy
	3		18 U.S.C. § 1001		False statements
	1		18 U.S.C. § 1002		Possession of false papers
	4		18 U.S.C. § 1341		Mail fraud
	13		18 U.S.C. § 1343		Wire fraud
	1		18 U.S.C. § 1344		Bank fraud
	1		18 U.S.C. § 1348		Securities fraud
	1		18 U.S.C. § 1349		Attempt and conspiracy
	1		18 U.S.C. § 1350		False certification of financial reports
	2		18 U.S.C. § 1952		Racketeering (use of transportation)
	2		18 U.S.C. § 1956		Racketeering (money laundering)
	2		18 U.S.C. § 1957		Racketeering (monetary transactions)
	1		26 U.S.C. § 7201		Tax evasion
	4		26 U.S.C. § 7206		Fraud and false tax statements
	1		31 U.S.C. § 1059		Reports on exporting and importing monetary instruments (CFTRA)
	1		31 U.S.C. § 1101		Reports on exporting and importing monetary instruments (CFTRA)
	2		31 U.S.C. § 5316		Reports on exporting and importing monetary instruments

Panel B – Code of Federal Regulations (Rule) Violations

Civil	Citation	Description
14	17 C.F.R. 240.10b-5	Manipulative and deceptive devices - intent to defraud
15	17 C.F.R. 240.12b-20	Additional information to make statement not misleading – antifraud
15	17 C.F.R. 240.13a-1	Annual reports (10-K and 10KSB)
4	17 C.F.R. 240.13a-11	Current reports (8-K)
11	17 C.F.R. 240.13a-13	Quarterly reports (10-Q and 10QSB)
1	17 C.F.R. 240.13a-14	False certification of periodic reports (SOX)
25	17 C.F.R. 240.13b2-1	Falsification of accounting records (FCPA)
7	17 C.F.R. 240.13b2-2	Misrepresentations to auditors (FCPA)
3	17 C.F.R. 240.14a-3	Information requirements (proxies)

Table 6: Legal Sanctions for Bribery Violations

Monetary and non-monetary penalties imposed through federal sanctions and private civil class action settlements relating to 75 enforcement actions for foreign bribery brought under the Foreign Corrupt Practices Act. Each panel presents the results for all 75 enforcement actions, the 64 that included accounting charges, and the 11 with bribery only charges. Panel A summarizes the monetary penalties assessed by regulators on all respondents and the firm only, related private class and derivative actions, and the total of all monetary penalties against the firm. Panel B presents the total penalties as a fraction of the total market value loss measured by the cumulative abnormal return of all enforcement announcements for each enforcement action. Panel C summarizes the non-monetary sanctions against all respondents in the enforcement proceedings.   Only partial sanction and penalty information is presented for XX actions whose proceedings were ongoing as of August 31, 2009.   Asterisks next to the mean and median represents significance of a t-test and ranksum test respectively where ***, ***, * indicate significance at the 0.001, 0.01, and 0.10 levels.

Panel A: Monetary penalties ($millions)

		All enforce-ment actions	Actions that include financial misconduct	Actions for bribery only	Difference
Penalties imposed on firms	N	75	64	11	53
and individuals	Sum	4,204.64	4,110.48	94.17	4,016.31
	Mean	56.06	64.23	8.56	55.67*
	Median	0.65	1.38	0.25	1.13*
	Min	0.00	0.00	0.00	0.00
	Max	1,507.50	1,507.50	69.50	1,438.00
Penalties imposed on firms	N	75	64	11	53
	Sum	3,738.18	3,691.15	47.03	3,644.12
	Mean	49.84	57.67	4.28	53.39*
	Median	0.60	1.37	0.00	1.37*
	Min	0.00	0.00	0.00	0.00
	Max	1,507.50	1,507.50	23.17	1,484.33
Class action/derivative	N	16	15	1	14
settlements	Sum	217.40	217.40	0.00	217.40
	Mean	13.59	14.49	0.00	14.49
	Median	0.00	0.00	0.00	0.00
	Min	0.00	0.00	0.00	0.00
	Max	215.00	215.00	0.00	215.00
Total firm monetary	N	75	64	11	53
penalties	Sum	3,955.58	3,908.55	47.03	3,861.52
	Mean	52.74	61.07	4.28	56.79*
	Median	0.68	1.44	0.00	1.44*
	Min	0.00	0.00	0.00	0.00
	Max	1,507.50	1,507.50	23.17	1,484.33

Panel B: Non-monetary penalties

		All	Actions that include financial misconduct	Actions for bribery Only	Difference
# actions with SEC sanctions	N	60	59	1	58
# actions with DOJ sanctions	N	53	43	10	33
Total number of administrative and civil sanctions					
Cease and desist orders	N	45	45	0	45
Injunctive actions	N	132	128	4	124
Trading suspensions	N	1	1	0	1
Revocations	N	1	1	0	1
Officer & director bars	N	23	23	0	23
Accountant bars	N	8	8	0	8
Other bars	N	2	2	0	2
Total number of criminal sanctions, including non- prosecution agreements					
Sanctions	N	135	113	22	91
Average # criminal sanctions	Mean	1.8	1.8	2.0	-0.2
Sentences	N	15	9	6	3
Average # sentences	Mean	0.2	0.14	0.55	-0.41
Prison (months)	Mean	97.8	147.0	24.0	123.0
Probation (months)	Mean	53.6	85.3	6.0	79.3
Halfway house (months)	Mean	1.0	1.7	0.0	1.7
Home detention (months)	Mean	3.8	5.9	0.7	5.2
Supervised release (months)	Mean	11.2	8.0	16.0	-8.0
Community service (hours)	Mean	56.7	66.7	41.7	25.0

Table 7: Abnormal Returns for Foreign Bribery-Related Enforcement Announcements

Average one-day market-adjusted returns for important events in 75 publicly traded bribery-related enforcement actions whose return data is available in CRSP. Abnormal returns are calculated using the value-weight CRSP index, and the events are grouped by the type of announcement. In each cell, the top row indicates the number of returns, the second row the mean, and the third row the median. Panel A presents the event study for the initial public revelation date, Panel B presents the subsequent revelation dates, and Panel C presents the abnormal returns according to the content of the announcement. Asterisks next to the mean and median represents significance of a t-test and ranksum test respectively where ***, ***, * indicate significance at the 0.001, 0.01, and 0.10 levels.

Panel A: Initial Public Revelation Date

	All enforcement actions	Actions that include financial misconduct	Actions for bribery only	Difference
All initial revelation dates	75	64	11	53
	-4.99%***	-5.66%***	-1.15%*	-4.51%**
	-1.29%***	-1.27%***	-1.56%*	0.29%
Type of initial revelation:				
– Internal investigation	18	18		
	-3.95%*	-3.95%*		
	-1.17%**	-1.17%**		
– Whistleblower	11	9	2	7
	-0.57%	-0.42%	-1.23%	0.81%
	-0.28%	-0.28%	-1.23%	0.95%
– Related investigation/litigation	7	5	2	3
	-4.90%*	-6.20%*	-1.65%*	-4.55%
	-5.30%*	-6.02%	-1.65%	-4.37%
– Earnings or other announcement	4	3	1	2
	-23.60%	-30.83%	-1.91%	-28.92%
	-22.21%	-42.52%	-1.91%	-40.61%
– Restatement	3	3		
	-33.07%	-33.07%		
	-14.61%	-14.61%		
– Delayed reports/auditor change	2	2		
	0.36%	0.36%		
	0.36%	0.36%		
– Management change	2	2		
	-2.21%	-2.21%		
	-2.21%	-2.21%		
– Class action lawsuits	1	1		
	-0.11%	-0.11%		
	-0.11%	-0.11%		
– SEC informal inquiry	6	6		
	-3.03%	-3.03%		
	-0.31%	-0.31%		
– DOJ/SEC formal investigation	9	7	2	5
	-1.70%	-2.28%	0.30%	-2.58%
	-0.69%	-0.69%*	0.30%	-0.99%
– Regulatory proceeding	12	8	4	4
	-2.67%*	-3.31%*	-1.39%	-1.92%
	-1.11%**	-1.25%*	-1.11%	-0.14%

Table 7: Abnormal Returns for Foreign Bribery-Related Enforcement Announcements

Panel B: Subsequent Public Revelation Dates

	All enforcement actions	Actions that include financial misconduct	Actions for bribery only	Difference
All subsequent announcements	310	269	41	228
	-2.99%***	-3.25%***	-1.26%***	-1.99%***
	-1.26%***	-1.28%***	-1.08%***	-0.20%
Order of subsequent announcements:				
2nd announcement	71	61	10	51
	-4.57%***	-5.18%***	-0.80%*	-4.38%***
	-1.33%***	-1.44%***	-0.65%*	-0.79%
3rd announcement	58	49	9	40
	-3.85%***	-4.28%***	-1.50%*	-2.75%**
	-1.84%***	-2.07%***	-1.42%*	-0.65%
4th announcement	35	28	7	21
	-2.02%**	-2.23%*	-1.21%**	-1.02%
	-0.89%***	-0.81%**	-0.89%*	0.08%
5th announcement	23	17	6	11
	-0.47%	-0.62%	-0.02%	-0.60%
	-0.54%	-0.86%	0.28%	-1.14%
6th announcement	18	15	3	12
	-1.95%**	-1.61%*	-3.64%	2.03%
	-1.40%**	-1.60%**	-1.20%	-0.40%
7th announcement	14	11	3	8
	-2.94%	-3.04%	-2.56%	-0.48%
	-1.37%*	-1.33%*	-4.00%	2.67%
8th announcement	10	8	2	6
	-13.42%	-16.63%	-0.58%	-16.05%
	-0.88%**	-0.88%**	-0.58%	-0.30%
9th or higher announcement	81	80	1	79
	-1.09%*	-1.07%*	-2.04%	0.97%
	-1.03%***	-0.96%***	-2.04%	1.08%

Panel C: Content of Public Announcement

	All enforcement actions	Actions that include financial misconduct	Actions for bribery only	Difference
All announcements	385	333	52	228
	-3.38%***	-3.72%***	-1.24%***	-2.48%***
	-1.27%***	-1.28%***	-1.23%***	-0.05%
Accounting only (no bribery)	122	122		
	-6.13%***	-6.13%***		
	-1.80%***	-1.80%***		
Bribery	263	211	52	159
	-2.11%***	-2.32%***	-1.24%***	-1.08%**
	-0.95%***	-0.86%***	-1.23%***	0.37%
Difference	141	89		
	-4.02%***	-3.81%***		
	-0.85%***	-0.97%***		

Table 8: Sources of Firms' Losses for Foreign Bribery

The following table presents the results of three regressions that explore the sources of firms' market value due to enforcement actions against the firm for foreign bribery. The dependent variable is the cumulative share value loss measured over all relevant announcement days for each enforcement action (positive values indicate a larger loss). The top row in each cell presents the estimated coefficient and the bottom row the associated p-value. Percent cumulative share value loss is the cumulative abnormal return associated with all announcements. Firm size is the natural logarithm of market capitalization, Oil for food dummy is an indicator variable=1 if the violation was associated with the United Nations' Oil for Food Program in Iraq, Corruptions perception score is the average Corruption Perceptions Index from Transparency International of all the countries in which bribes took place, Bankruptcy dummy is an indicator variable set to 1 if the firm filed bankruptcy in the period between the violation begin and the last regulatory proceeding date, Accounting charges included dummy is set to 1 if accounting violations were included in regulatory proceedings, No fraud dummy is an indicator variable set to 1 if the violations did not include fraud charges, and Penalty / average annual sales is the ratio of total monetary penalties assessed against the firm in regulatory and private actions divided by the average annual sales during the bribery period.

	All enforce-ment actions	Actions that include financial misconduct	Actions for bribery only
Firm size	0.0100	0.0160	-0.0139
	0.485	0.336	0.337
Oil-for-Food dummy	-0.1199	-0.1365	-0.0384
	0.012	0.021	0.645
Corruption Perceptions Index	-0.0057	0.0031	-0.0046
	0.741	0.910	0.776
Penalty / million market cap	0.2063	0.2595	1.7892
	0.284	0.223	0.515
Bankruptcy dummy	0.0940	0.1791	0.0215
	0.208	0.030	0.736
Accounting charges included dummy	0.2896		
	0.008		
No-fraud accounting interaction	-0.2936	-0.3156	
	0.015	0.012	
Cooperated in investigation flag	0.0750	0.1139	-0.0172
	0.213	0.102	0.674
Constant	-0.1483	-0.0220	0.3667
	0.646	0.941	0.326
N	75	64	11
R^2	.3104	.3304	.5895
Adj R^2	.2269	.2467	-.0262
F	4.273	6.205	
Prob > F	0.000	0.000	
Akaike Information Criterion	-35.56	-23.49	-36.18

Table 9: Changes in Cost of Equity Capital

Estimates using the O'Hanlon and Steele (2000) method for estimating the cost of equity capital implicit in the time series relationship between return on equity and unrecorded goodwill:

$$ROE_{it} = k_0 + k_1\, SURG_{it} + k_2\, POST\text{-}BRIBERY_{it} + k_3\, GROUP\text{-}FLAG_{it} + e_{it},$$

ROE_{it} is the return on equity, measured as net income in period t divided by the book value of equity at the end of period t-1. $SURG_{it}$ is "scaled unrecorded goodwill," measured as the difference between the market value of equity and the book value of equity in year t, divided by the book value of equity at t-1. The intercept, k_0, is a measure of the cost of equity capital. $POST\text{-}BRIBERY_{it}$ is a dummy variable equal to one only in the years after the revelation of their misconduct. k_2 is a measure of the change in the cost of equity capital for these firms. $GROUP\text{-}FLAG_{it}$ is a dummy variable equal to for the bribery sample firms only. k_3 is a measure of the change in the cost of equity capital for these firms. Models 1 through 4 are estimated using a pooled OLS regression and Models 5 through 8 are estimated using fixed effect panel data regression. Models 1, 2, 5, and 6 include data only from the 75 firms in the bribery sample. Models 3, 4, 7, and 8 include both bribery and control firms. Regressions are estimated using five years before and five years after the year in which the bribery was publicly revealed. The control firms were selected using the propensity score matching technique detailed in the Appendix and the accounting variables were gathered from COMPUSTAT. p-values below the coefficient estimates are calculated using robust standard errors.

	Pooled OLS Regression				Fixed Effect Panel Data			
	Bribery Sample		Bribery & Control		Bribery Sample		Bribery & Control	
Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	0.1048	0.1051	0.1045	0.1046	0.0968	0.0972	0.0999	0.1001
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Unrecorded goodwill	0.0257	0.0256	0.0227	0.0226	0.0301	0.0300	0.0272	0.0271
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Group flag (dummy)			0.0064	0.0064				
			0.503	0.502				
Post-violation period (dummy)	0.0346		0.0092	0.0092	0.0318		0.0079	0.0079
	0.001		0.367	0.366	0.028		0.508	0.508
Post-violation period for bribery sample			0.0255				0.0244	
			0.075				0.195	
Charges Interactions:								
Post-violation period for firms in bribery sample with accounting charges included		0.0417		0.0329		0.0424		0.0352
		0.000		0.027		0.004		0.063
Post-violation period for firms in bribery sample without any accounting charges		-0.0055		-0.0161		-0.0293		-0.0380
		0.718		0.383		0.480		0.399
N	522	522	1001	1001	522	522	1001	1001
R^2	.3923	.3977	.3557	.3589	.3967	.4054	.3467	.3521
Adj R^2	.3899	.3942	.3531	.3556	.3944	.4020	.3447	.3495
F	20.89	15.81	21.20	17.62	12.59	8.75	15.70	12.00
Prob > F	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Akaike Information Criterion	-812.2	-814.9	-1,541	-1,543	-967.3	-972.9	-1,907	-1,914

Table 10: Changes in Operating Performance

The table presents difference-in-differences tests of operating performance measurements for the bribery sample firms and matching control firms over years (-3, -1) and (+1, +3) relative to the last fiscal year in which the bribery took place. In Panel A, performance is measured as earnings before interest and taxes (EBIT) divided by the beginning year total assets. In Panel B, performance is measured as earnings before interest, taxes, depreciation, and amortization (EBITDA) divided by beginning year total assets. Each firm in the bribery sample is matched with a control firm with the same 2-digit SIC code in the last fiscal year in which the bribery took place and that has the nearest propensity score without replacement. The propensity score is determined as the predicted probability from the logit model presented in the Appendix. ***, ***, * indicate significance at the 0.001, 0.01, and 0.10 levels using a t-test for differences.

Difference (1, 3) - (-3, -1)	All	Accounting Included	Bribery	Difference
ROA (EBIT / total assets)				
Mean				
Sample	-0.0026	-0.0005	-0.0145	0.0141
Control	-0.0052	-0.0056	-0.0027	-0.0029
Difference	0.0026	0.0051	-0.0119	0.0026
Median				
Sample	0.0014	0.0039	-0.0126	0.0165
Control	-0.0039	-0.0041	-0.0027	-0.0014
Difference	0.0053	0.0080	-0.0099	0.0179
ROA (EBITDA / total assets)				
Mean				
Sample	-0.0087	-0.0069	-0.0189	0.0120
Control	-0.0028	-0.0071	0.0221	-0.0291*
Difference	-0.0059	0.0002	-0.0409	0.0412
Median				
Sample	-0.0049	-0.0026	-0.0181	0.0155
Control	-0.0027	-0.0064	0.0187	-0.0252
Difference	-0.0022	0.0038	-0.0368	0.0407

Table 11: Long-Term Organizational Changes

Test of proportions of the current status of 75 firms targeted for SEC and DOJ enforcement action for bribery violations from 1978 through August 2009, and matched control firms. The bribery and control firms are partitioned into a group of 64 enforcement actions that include accounting charges and 11 without any associated accounting charges. The Diff column reports the t-statistic from a test for equality of proportions and the corresponding p-value.

|	Accounting Charges			Bribery Charges Only			All		
	Control	Bribery	Diff	Control	Bribery	Diff	Control	Bribery	Diff
Active	43	34	1.26	6	7	-0.33	49	41	1.03
	67.19%	53.13%	0.209	54.54%	63.63%	0.739	65.33%	54.67%	0.303
Merger/acquired	14	19	-0.50	4	4	0.00	18	23	-0.47
	21.88%	29.69%	0.615	36.36%	36.36%	1.000	24.00%	30.67%	0.636
Failed/delisted	7	11	-0.36	1	0	N/A	8	11	-0.05
	10.94%	17.19%	0.716	9.09%	0.00%	N/A	10.67%	14.67%	0.957
Total	65	65		11	11		75	75	
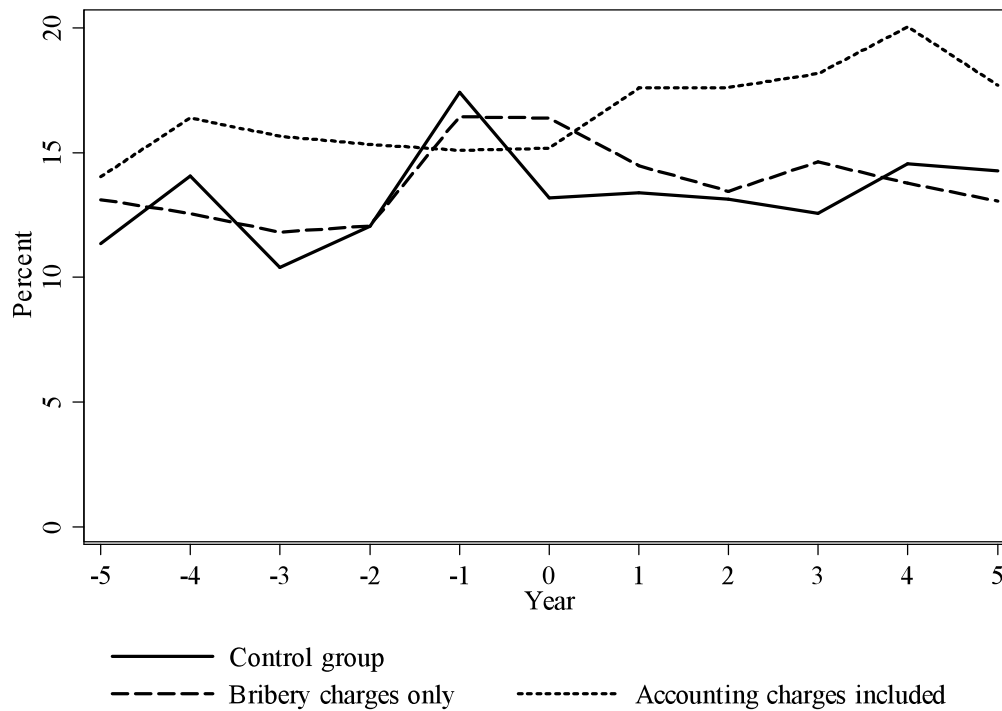
Figure 2: Cost of Equity Capital

The graph illustrates the estimated cost of equity capital of firms subject to regulatory enforcement action for foreign bribery and matching control firms. Year 0 is the last fiscal year in which the bribe occurred and is the year the 75 matching control sample firms was selected as detailed in the Appendix. The bribery sample firms are split into the 11 firms whose enforcement proceedings included bribery charges only and the 64 that included accounting charges. The cost of equity capital was estimated using the O'Hanlon and Steele (2000) method.

Appendix: Using the Propensity Score Matching Method to Create the Control Sample

The propensity score matching (PSM) method first described by Rosenbaum and Rosen (1983) was used to select a control sample for empirical tests. In the normal matching process, control firms are selected along one or more characteristics thought to make them as alike as possible to the treatment sample. These common characteristics include industry, size, book-to-market, and time. A major drawback to this approach is the researcher must be confident the matching characteristics used will yield a control sample that is not biased (i.e. the treatment and control groups do not have substantial overlap). This might occur if the firms that make up the treatment sample tend to exist near the upper and lower tails of the characteristic population used to perform the match. In this case the matched control sample may be biased to the mean. To help avoid this bias, additional characteristics are sometimes added, but as they are added, complexity increases. The researcher must determine the appropriate order to use with the matching characteristics and with increasing dimensionality there is an increased chance a treatment sample firm cannot be matched adequately with a control firm.

PSM attempts to solve this problem by using the predicted probability of group membership based on observed predictors usually obtained from a logistic regression to create the counterfactual or control group. PSM is not without its limitations. First, there is an assumption the untreated cases were not treated at random. Second, hidden bias may remain because the matching only controls for the observed variables and the observed variables may not be perfectly measured. Finally, a large pool from which to select control samples is usually required in order for there to be substantial group overlap in the treatment and control samples.

We used the following process to implement the PSM method in selecting our control sample. First, Compustat was used to collect observed characteristics for each firm year that spans our data sample time frame. It is hypothesized these characteristics would be important in

determining whether or not a firm might engage in foreign bribery. These characteristics are: the reporting year, the two-digit SIC code, the natural logarithm of total assets, the market-to-book ratio, current ratio, leverage ratio, return on assets, the ratio of intangible assets to total assets, the percent of foreign sales to total sales revenue, and an indicator flag that is set equal to one if the auditor performing the audit was one of the Big Eight public accounting firms. Due to outliers that exist with market-to-book, current, and leverage ratios, these are Winorized at the 0.01 and 0.99 percentiles. Size (total assets) and market-to-book are included as standard financial characteristics. Current, leverage, and return on assets are included because firms with higher values of these ratios may be less motivated to either engage in bribery to increase sales, decrease costs, or are closely monitored by lenders. Firms with higher ratio of intangible assets to total assets and those with a greater percentage of foreign sales may be more likely to engage in foreign bribery due to their complexity (opaqueness) or are simply more exposed to foreign markets. Finally, the larger more experienced auditor may be better prepared to help ferret out reporting and control weaknesses that may help facilitate bribery by the firm's employees.

Table A1 presents the result of the fixed-effects logit regression using the characteristics described above where the dependent variable is set to one in each of the year where the sample firms were engaged in foreign bribery. The estimated odds ratios are consistent with the hypothesized direction and all but the market-to-book are significant at the 0.10 level. We next used the model to estimate the predicted probability (PScore) of the occurrence of bribery for every firm-year in Compustat.

We used the PScore of each sample firm to select the closest neighbor matching control firm PScore without replacement that was: (1) in the same two-digit SIC Code and (2) was matched in the last year of violation for the bribery sample. The resulting control sample consists of 79 firms, one for each of the bribery treatment sample. In order for the control sample to be a good match, the characteristics should be similar to the bribery treatment sample. As indicated in

Table A2, the only significant difference at a p-value < 0.05 in the year of match (year 0) between

the treatment and control samples is the proportion of bribery firms that have a Big Eight auditor

is larger at 93.67% than the 77.22% in the matched control sample. An additional drawback of

the PSM method is that since matching is done at a point in time, the similarities of the treatment

and control samples may diverge over time. In order to examine consistency, we also present a

test of differences between the two groups for the five years before and after the year matched.

Differences at a p-value < 0.05 which are highlighted include a greater proportion of treatment

sample firms being audited by a Big Eight (or Four) accounting firm in year -4 through year 0 and

year 2 through year 4; a greater proportion of foreign sales for the treatment sample in year -5

through year -2 and year 1 through year 4; a lower current ratio for the treatment sample in year -

4 through year -2; a higher leverage ratio for the treatment sample in year -4 and year 1; a lower

market-to-book ratio for the treatment sample firms in year -1; and a higher return on assets for

treatment sample firms in year 1.

Figure A1 graphically depicts the closeness of fit of the resulting propensity scores

(PScore) for the treatment sample and control group. In results not shown, a test of the difference

in propensity scores between the treatment sample and matched control sample partitioned into

deciles of the treatment sample propensity score yield no differences in propensity scores for any

of the deciles.

Table A1: Propensity Score Matching Model

A control sample was created using a propensity score matching technique proposed by Rosenbaum and Rubin (1983). This table reports the conditional fixed-effects, cross-sectional time-series logit regression where the dependent variable is a one for each year during the violation period of all regulatory enforcement actions for foreign bribery. The model was used to calculate the propensity score or the predicted probability of engaging in foreign bribery for each firm-year in Compustat. A control firm was chosen for each firm in the bribery sample in the last year of violation with the same 2-digit SIC code that had the nearest propensity score. The nearest neighbor matched control firms were chosen without replacement.

		Number of obs	=	1907
		Number of groups	=	79
		Obs per group: min	=	2
		avg	=	24.1
		max	=	36
		LR chi2(7)	=	175.37
Log likelihood =	-586.74626	Prob > chi2	=	0.0000

Variable	OR	Std. Err.	z	P>z	[95% Conf.	Interval]
Log(Total assets)	2.059356	.2215132	6.72	0.000	1.667910	2.542672
Market-to-book[1]	1.113587	.0796842	1.50	0.133	0.967866	1.281248
Current ratio[1]	0.867197	.0690611	-1.79	0.074	0.741875	1.013690
Leverage ratio[1]	0.732272	.0440292	-4.35	0.000	0.022536	0.237943
Return on assets	0.068822	.0654183	-2.82	0.005	0.010682	0.443434
Intangible assets	46.294300	41.367000	4.29	0.000	8.033406	266.770900
% foreign sales	2.517021	1.189494	1.96	0.050	0.999196	6.340494
Big 8 auditor flag	0.514601	.1552225	-2.20	0.028	0.284917	0.929446

1. Winsorized at 0.01 and 0.99 percentiles.

Table A2: Propensity Score Matching Comparison of Conditioning Variables

This table presents a t-Test of the difference in means for each of the conditioning variables used in the logit model for the five years before and after the year matched (0). For each conditioning variable in the relative matching year, the mean value for the bribery and control samples are presented along with difference in means, t Value, and resulting p-value. Shaded results are significant at p < 0.05 level.

		Year										
		-5	-4	-3	-2	-1	0	1	2	3	4	5
N	(1) Bribery	73	74	74	78	78	79	73	66	59	46	41
	(2) Control	66	69	73	75	78	79	79	71	59	48	43
Total	(1) Bribery	9,900	11,544	12,410	12,996	13,188	14,342	15,409	16,035	18,198	23,184	24,600
Assets	(2) Control	7,458	7,703	9,257	9,611	10,654	11,481	12,748	10,476	12,233	15,413	18,451
	(1) - (2)	2,442	3,841	3,153	3,385	2,533	2,862	2,661	5,559	5,965	7,770	6,149
	$t_{(1)-(2)}$	0.71	1.06	0.80	0.83	0.56	0.58	0.51	1.28	1.10	1.03	0.65
	p-value	0.478	0.292	0.424	0.406	0.576	0.566	0.613	0.202	0.272	0.305	0.517
Market-	(1) Bribery	1.7421	2.1669	2.2134	2.1772	1.6197	1.7667	1.7394	1.7081	1.6366	1.6464	1.6367
to-Book	(2) Control	2.1149	2.1547	2.5233	2.5972	2.3177	3.1442	2.6198	2.6373	2.5248	2.9829	2.0290
	(1) - (2)	-0.3728	0.0121	-0.3099	-0.4201	-0.6980	-1.3775	-0.8804	-0.9291	-0.8882	-1.3366	-0.3923
	$t_{(1)-(2)}$	-0.99	0.02	-0.39	-0.63	-2.02	-1.85	-1.55	-1.49	-1.28	-1.22	-1.28
	p-value	0.324	0.984	0.697	0.530	0.046	0.068	0.126	0.140	0.205	0.230	0.207
Current	(1) Bribery	1.9732	1.6493	1.7010	1.8334	1.8395	1.7787	1.7707	1.7747	1.8420	1.7607	1.7520
Ratio	(2) Control	2.3738	2.4081	2.2401	2.4580	2.2005	1.9649	1.9969	1.9051	1.9475	1.8111	1.8853
	(1) - (2)	-0.4006	-0.7589	-0.5391	-0.6246	-0.3610	-0.1862	-0.2262	-0.1304	-0.1055	-0.0504	-0.1334
	$t_{(1)-(2)}$	-1.04	-2.75	-2.12	-2.02	-1.34	-0.97	-1.19	-0.71	-0.51	-0.24	-0.45
	p-value	0.301	0.007	0.036	0.047	0.181	0.332	0.236	0.477	0.611	0.815	0.655
Leverage	(1) Bribery	0.6170	0.6337	0.6296	0.6560	0.6059	0.6305	0.6286	0.6198	0.6591	0.6920	0.7017
Ratio	(2) Control	0.5263	0.5348	0.5972	0.5425	0.6236	0.6228	0.5300	0.7125	0.7494	0.6516	0.7338
	(1) - (2)	0.0907	0.0989	0.0323	0.1135	-0.0176	0.0078	0.0986	-0.0927	-0.0903	0.0404	-0.0321
	$t_{(1)-(2)}$	1.77	2.13	0.46	1.48	-0.20	0.10	2.48	-0.59	-0.47	0.41	-0.26
	p-value	0.079	0.035	0.647	0.142	0.842	0.922	0.014	0.554	0.637	0.684	0.793

Table A2: Propensity Score Matching Comparison of Conditioning Variables (con't)

|		Year										
		-5	-4	-3	-2	-1	0	1	2	3	4	5
N	(1) Bribery	73	74	74	78	78	79	73	66	59	46	41
	(2) Control	66	69	73	75	78	79	79	71	59	48	43
Return on	(1) Bribery	0.0328	0.0361	0.0194	-0.1161	0.0241	0.0250	0.0259	0.0332	0.0408	0.0381	0.0676
Assets	(2) Control	-0.0399	-0.0446	-0.0770	-0.0726	-0.0662	-0.1743	-0.1153	-0.2962	-0.2506	-0.2407	-0.1874
	(1) - (2)	0.0727	0.0807	0.0964	-0.0435	0.0903	0.1993	0.1412	0.3294	0.2913	0.2788	0.2550
	$t_{(1)-(2)}$	1.50	1.76	1.60	-0.33	1.21	1.95	2.46	1.66	1.50	1.80	1.81
	p-value	0.138	0.082	0.113	0.740	0.230	0.055	0.016	0.101	0.139	0.077	0.077
Intangible	(1) Bribery	0.0904	0.1072	0.1152	0.1208	0.1346	0.1346	0.1340	0.1416	0.1376	0.1224	0.1432
Assets	(2) Control	0.0847	0.0956	0.1129	0.1147	0.1347	0.1498	0.1450	0.1494	0.1380	0.1207	0.1303
Ratio	(1) - (2)	0.0057	0.0115	0.0023	0.0062	-0.0002	-0.0152	-0.0110	-0.0078	-0.0004	0.0017	0.0130
	$t_{(1)-(2)}$	0.25	0.47	0.08	0.24	-0.01	-0.56	-0.41	-0.28	-0.01	0.06	0.34
	p-value	0.805	0.639	0.933	0.813	0.994	0.575	0.683	0.782	0.989	0.952	0.732
% Foreign	(1) Bribery	0.3074	0.3175	0.3318	0.3601	0.3282	0.3385	0.3651	0.4065	0.4147	0.3895	0.4009
Sales	(2) Control	0.1718	0.1886	0.2127	0.2164	0.2430	0.2499	0.2364	0.2498	0.2608	0.2534	0.2691
	(1) - (2)	0.1356	0.1288	0.1192	0.1437	0.0852	0.0886	0.1287	0.1566	0.1540	0.1361	0.1319
	$t_{(1)-(2)}$	2.89	2.76	2.49	3.03	1.81	1.91	2.71	3.14	2.83	2.18	1.96
	p-value	0.004	0.007	0.014	0.003	0.072	0.057	0.007	0.002	0.006	0.032	0.053
Big-8	(1) Bribery	0.8649	0.9333	0.9467	0.9487	0.9114	0.9367	0.8919	0.9104	0.8983	0.9348	0.9268
Auditor	(2) Control	0.7353	0.7606	0.7600	0.8158	0.7975	0.7722	0.7848	0.7042	0.7167	0.7551	0.8372
	(1) - (2)	0.1296	0.1728	0.1867	0.1329	0.1139	0.1646	0.1071	0.2062	0.1816	0.1797	0.0896
	$t_{(1)-(2)}$	1.93	2.94	3.33	2.59	2.04	3.00	1.81	3.18	2.56	2.49	1.28
	p-value	0.056	0.004	0.001	0.011	0.043	0.003	0.072	0.002	0.012	0.015	0.206
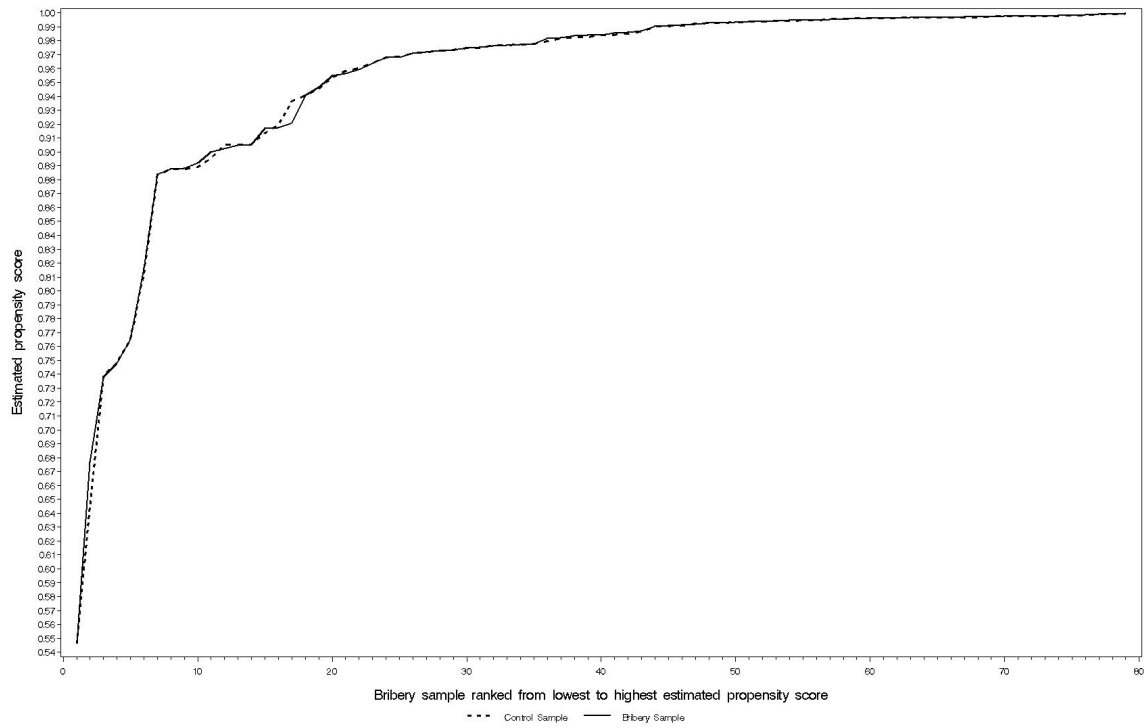
Figure A1

Propensity Scores for Bribery and Nearest Neighbor Matched Control Samples

This figure visually displays the goodness of fit of the propensity score matching results for selecting a control sample. The horizontal axis displays the bribery sample indexed from lowest to highest estimated propensity score and the vertical axis depicts the propensity scores of both the bribery and matched control sample.