

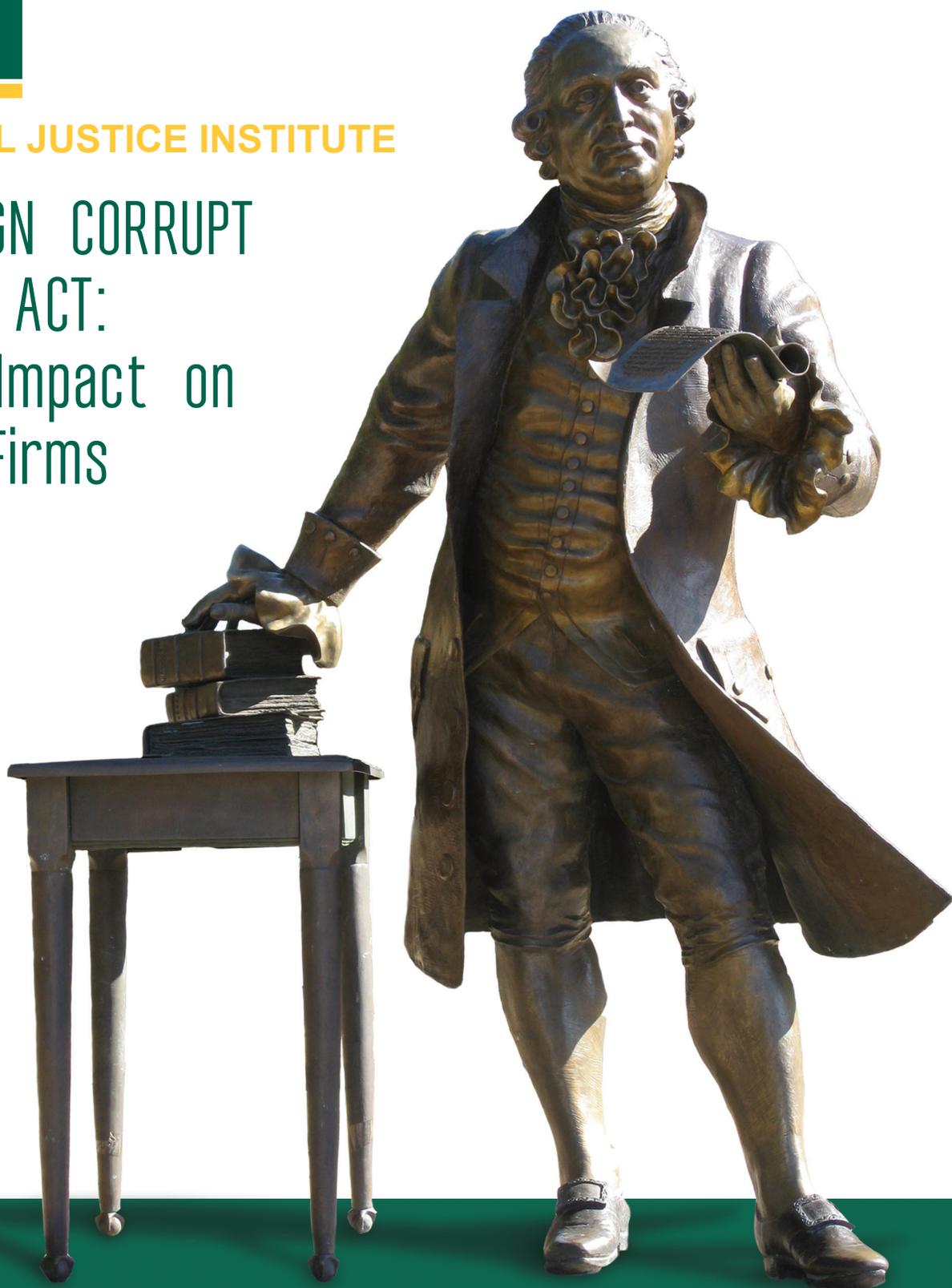
GEORGE MASON UNIVERSITY SCHOOL OF LAW

LAW &  
ECONOMICS  
CENTER

SEARLE CIVIL JUSTICE INSTITUTE

THE FOREIGN CORRUPT  
PRACTICES ACT:  
Economic Impact on  
Targeted Firms

JUNE 2014



LEGAL & ECONOMIC ANALYSIS. PUBLIC POLICY IMPACT.

Searle Civil Justice Institute

THE FOREIGN CORRUPT PRACTICES ACT:  
Economic Impact on Targeted Firms

June 2014

Law & Economics Center  
George Mason University School of Law

## SEARLE CIVIL JUSTICE INSTITUTE

Founded in 2008, the Searle Civil Justice Institute (SCJI) is a nonpartisan public policy institute based at George Mason University's Law & Economics Center. The SCJI's core mission is to provide research regarding the impact of laws and regulations on economic growth that is analytically rigorous, balanced, accessible, and useful to policy makers. The SCJI works diligently to maximize the effectiveness of such research through large-scale public policy conferences, public policy reports, and an extensive communications strategy.

The Board of Overseers plays a crucial, active role in the work of the SCJI. The Board identifies and supports topics for new research projects and provides constructive advice on existing research projects. Board Members help assure impartiality and autonomy of SCJI research. The Board also builds financial support for the SCJI and its mission, as appropriate. The Board is composed of a balanced group of leading academics, practitioners, and judges, with a wide breadth of legal, economic, business, and public policy expertise. SCJI work products do not necessarily reflect the opinions or policies of the research sponsors or the SCJI Board of Overseers.

**Law & Economics Center**  
**George Mason University School of Law**  
3301 Fairfax Drive  
Arlington, VA 22201-4426  
703.993.8040  
[www.MasonLEC.org](http://www.MasonLEC.org)

## BOARD OF OVERSEERS

### **Fern P. O'Brian**

Chair, Searle Civil Justice Institute Board of Overseers & Partner, Thomson Hine LLP

### **Henry N. Butler**

George Mason Foundation Professor of Law & Executive Director, Law & Economics Center

### **Dan R. Brouillette**

Senior Vice President, Government & Industry Relations, USAA

### **P. Brent Brown**

Attorney, Brown & Jennings, PLC

### **Matthew C. Carter**

Senior Associate General Counsel, Wal-Mart Stores, Inc.

### **David R. Donnersberger Jr., MD**

Clinical Assistant Professor of Medicine, University of Chicago Pritzker School of Medicine

### **Richard O. Faulk**

Partner, Gardere Wynne Sewell LLP & Senior Director, Law & Economics Center

### **Hon. Douglas H. Ginsburg**

Judge, US Court of Appeals for the District of Columbia Circuit & Professor of Law, George Mason University School of Law

### **Joseph Goldberg**

Partner, Freedman Boyd Hollander Goldberg Ives & Duncan PA

### **Markus Green**

Senior Corporate Counsel, Pfizer, Inc.

### **Hon. Harris L Hartz**

Judge, US Court of Appeals for the Tenth Circuit

### **Thomas H. Hill**

Associate General Counsel, Environmental Health & Safety, General Electric Co.

### **Jeffrey W. Jackson**

Senior Vice President & General Counsel, State Farm Mutual Automobile Insurance Company

### **Janet Langford Kelly**

Senior Vice President, General Counsel & Corporate Secretary, ConocoPhillips

### **Bruce H. Kobayashi**

Professor, George Mason University School of Law

### **Geoffrey J. Lysaught**

Group Vice President, Strategic Communications, The Heritage Foundation

### **William B. Lytton**

Executive Vice President & General Counsel, Tyco International, retired

### **Paul K. Mancini**

Senior Vice President & Associate General Counsel, AT&T, retired

### **Alan B. Morrison**

Lerner Family Associate Dean for Public Interest & Public Service Law, The George Washington University Law School

### **Judyth Pendell**

Owner, Pendell Consulting

### **Hon. William Ray Price**

Partner, Armstrong Teasdale

### **Marsha J. Rabiteau**

Executive Director, Legal Policy Strategies Group

### **Victor E. Schwartz**

Partner, Shook, Hardy & Bacon LLP

### **Joseph F. Speelman**

Partner, Blank Rome LLP

### **Hon. Gerald Bard Tjoflat**

Judge, US Court of Appeals for the Eleventh Circuit

## PRINCIPAL INVESTIGATORS

### **Gerald S. Martin, PhD**

Associate Professor of Finance  
American University

### **Jonathan M. Karpoff, PhD**

Washington Mutual Endowed Chair in Innovation  
Professor of Finance  
Foster School of Business  
University of Washington

### **D. Scott Lee, PhD**

Lincy Professor of Finance  
Lee Business School  
University of Nevada, Las Vegas

# CONTENTS

- EXECUTIVE SUMMARY ..... vi
- ACKNOWLEDGEMENTS..... viii
  
- 1. INTRODUCTION ..... 1
  
- 2. BACKGROUND ..... 4
  - 2.1 THE FOREIGN CORRUPT PRACTICES ACT ..... 4
  - 2.2 ENFORCEMENT TRENDS..... 6
  
- 3. DATA ..... 8
  - 3.1 CHARACTERISTICS OF FIRMS SUBJECT TO FCPA ENFORCEMENT ACTIONS..... 8
  - 3.2 AMOUNTS PAID AND BENEFITS RECEIVED..... 12
  
- 4. THE EFFECT OF FCPA ENFORCEMENT ON COMPANY VALUE..... 14
  - 4.1 METHODOLOGY ..... 14
  - 4.2 INITIAL REVELATION OF INVESTIGATION ..... 15
  - 4.3 CUMULATIVE INVESTIGATION ANNOUNCEMENTS ..... 16
  
- 5. DECOMPOSITION OF REDUCTION IN FIRM VALUE ..... 19
  - 5.1 DIRECT COSTS: FINES AND PENALTIES, INVESTIGATION, AND LEGAL EXPENSES ..... 19
  - 5.2 INDIRECT COSTS IMPOSED BY BRIBERY ENFORCEMENT ACTIONS..... 23
  
- 6. CONCLUSION..... 31

## EXECUTIVE SUMMARY

In December 1977 Congress passed the Foreign Corrupt Practices Act (FCPA),<sup>1</sup> making the U.S. the first country to prohibit payments to foreign government officials to secure a business advantage. For most of the FCPA's existence, enforcement actions were rare. In recent years, however, the Department of Justice (DOJ) and the Securities Exchange Commission (SEC) (collectively, "the Agencies") have markedly increased their enforcement of the FCPA. To date, the debate over the FCPA's cost to firms has proceeded without much systematic evidence. To fill this void, the Searle Civil Justice Institute (SCJI) gathered data on FCPA enforcement actions involving foreign bribery. In August 2012, the SCJI released its first report (the "2012 Report"), which provided a descriptive analysis of FCPA enforcement actions over time.<sup>2</sup> This 2014 Report covers all bribery-related FCPA actions through April 2013, and expands on the 2012 Report by exploring the economic impact of FCPA enforcement on targeted firms.

### Key Findings

- Targeted firms tend to have a high equity value.
  - Of the 139 total firms in the sample, 76 reside in the top decile of Compustat firms and only 9.4 percent reside in the bottom five deciles.
- Targeted firms concentrate most in the heavy manufacturing, pharmaceutical and healthcare, and oil and gas industries.
- Targeted firms' expected return on investment for bribes to foreign officials is high.
  - 85.6 percent of bribes are intended to elicit increased sales, whereas only 7.2 percent are given in exchange for political and regulatory favors.
  - On average, the ratio of bribe to sales influenced is 5.87 percent, and over the entire violation period the firm's projected sales increase by 4.52 percent due to the bribe-related sales increase.
- The announcement of an FCPA investigation decreases the value of a firm.
  - The initial revelation is associated with an average decline in market capitalization for the targeted firm of 2.9 percent.

---

<sup>1</sup> Foreign Corrupt Practices Act of 1977, Pub. L. No. 95-213, 91 Stat. 1494 (codified as amended at 15 U.S.C. §§ 78a, 78dd-1, 78dd-2, 78ff, 78m, 78o.).

<sup>2</sup> *The Foreign Corrupt Practices Act: An Empirical Examination of Enforcement Trends, Phase I*, George Mason University Law & Economics Center Searle Civil Justice Institute, Sept. 2012, available at <http://www.masonlec.org/programs/45>.

- The specific FCPA charge, however, has a large impact on firm losses.
  - Firms charged only with bribery experience an initial average 1.5 percent reduction in market capitalization, and an average cumulative reduction in value of 2.7 percent.
  - Firms charged with both bribery and financial fraud experience an average initial loss in value of 16.3 percent, and an average cumulative loss in value of 54.9 percent.
  - This trend remains true across industries.
- Reputational losses can overwhelm direct costs when a firm is charged with both bribery and financial fraud.
  - The direct costs of an FCPA enforcement action explain the loss of value for firms engaged in bribery, but not for firms charged with bribery and financial fraud.
  - Indirect costs, in the form of cumulative shareholder loss, represent a 46.3 percent reduction of market capitalization for firms accused of both bribery and financial fraud.

## ACKNOWLEDGEMENTS

We thank the Law & Economics Center at George Mason University School of Law for financial support, and Brian O'Bannon, Elliott Fox, and Jason Russell for excellent research assistance, as well as Michael Wilt and Sophia Higgins for editing and finalizing the report. We also thank the Searle Civil Justice Institute's Board of Overseers and two anonymous referees for helpful comments and suggestions. We especially thank James Cooper, the Law & Economics Center's Director of Research and Policy, for organizing and coordinating our research efforts and editing this report.

# THE FOREIGN CORRUPT PRACTICES ACT: Economic Impact on Targeted Firms

## 1. INTRODUCTION

Congress passed the Foreign Corrupt Practices Act (FCPA) in 1977 to address concerns over payments made by U.S. companies to foreign government officials to obtain government contracts and other favorable treatment.<sup>1</sup> Broadly, the FCPA prohibits companies from giving anything of value to a foreign government official to obtain or retain business. Since the FCPA's enactment through April 2013, the Department of Justice (DOJ) and the Securities Exchange Commission (SEC) ("the Agencies") – which jointly enforce the FCPA – have brought 189 bribery-related actions.<sup>2</sup> The Agencies, however, have brought most of these actions in recent years: 70 percent of all FCPA bribery actions have occurred since 2005.<sup>3</sup>

The increase in FCPA bribery enforcement activity has sparked a vibrant debate over the costs imposed on targeted companies. In addition to an increase in the number of actions, the penalties for foreign bribery also have increased. From 1978-2004, the average (median) inflation-adjusted penalty was \$5.4 million (\$0.2 million), compared to \$60 million (\$7.8 million) from 2005-2011.<sup>4</sup> These penalties are on top of other direct costs associated with FCPA investigations. The U.S. Chamber of Commerce asserts that, "(b)usinesses enmeshed in a full-blown FCPA investigation conducted by the U.S government have and will continue to spend enormous sums on legal fees, forensic accounting, and other investigative costs before they are even confronted with a fine or penalty . . . ."<sup>5</sup> Indirect costs – possibly including lost reputational capital –also could be significant.<sup>6</sup>

By contrast, other commentators complain that FCPA penalties are too low for effective deterrence.<sup>7</sup> Legislators appear to have accepted this argument. In addition to the increase in FCPA enforcement, the whistle-blower provisions in Dodd-Frank increase firms' potential liability for FCPA violations. Further, proposed legislation in the

---

<sup>1</sup> Foreign Corrupt Practices Act of 1977, Publ. L. No. 95-213, Stat. 1494 (codified as amended at 15 U.S.C. §§ 78a, 78dd-1, 78dd-2, 78ff, 78m, 78o.).

<sup>2</sup> See Section IIIa, *infra*, for more information on the Task Force's methodology in counting FCPA cases.

<sup>3</sup> See SCJI, FCPA Report (2012) for details of enforcement trends.

<sup>4</sup> See *Id.*

<sup>5</sup> See Andrew Weissmann & Alixandra Smith, *Restoring Balance: Proposed Amendments to the Foreign Corrupt Practices Act*, U.S. Chamber Institute for Legal Reform, Oct. 27, 2010, available at <http://www.instituteforlegalreform.com/resource/restoring-balance-proposed-amendments-to-the-foreign-corrupt-practices-act/>.

<sup>6</sup> The potential for large costs is emphasized by FCPA compliance consultants. E.g., see <http://www.pwc.com/us/en/corporate-governance/bribery-and-corruption.jhtml> (Pricewaterhouse Coopers), and [http://www.ey.com/Publication/vwLUAssets/EY-Dangerous-World/\\$FILE/EY-FIDS-Dangerous-World.pdf](http://www.ey.com/Publication/vwLUAssets/EY-Dangerous-World/$FILE/EY-FIDS-Dangerous-World.pdf) (Ernst and Young).

<sup>7</sup> See Dwight Cass, *Cracks in the SEC's Crackdown: The Securities Watchdog is Chasing High-Profile Cases, but the Fines it's Extracting are Peanuts*, CNNMONEY, Aug. 12, 2009, available at [http://money.cnn.com/2009/08/12/news/economy/sec\\_schapiro\\_fines.fortune/](http://money.cnn.com/2009/08/12/news/economy/sec_schapiro_fines.fortune/).

112<sup>th</sup> Congress would have provided a private right of action under the FCPA, further increasing companies' potential liability.

To date, the debate over the FCPA's cost to firms has proceeded without much systematic evidence. To fill this void, the Searle Civil Justice Institute (SCJI) gathered data on FCPA enforcement actions involving foreign bribery, focusing on the firm as the unit of analysis. In August 2012, the SCJI released its first report, which provided a descriptive analysis of FCPA enforcement actions over time.<sup>8</sup> This report also attempted to identify possible factors contributing to the recent increase in FCPA enforcement by examining the extent to which the character of FCPA actions varied over time.

This second Report continues to add empirical analysis to the FCPA debate by examining the economic impact of FCPA enforcement on companies. It expands the data on the characteristics of FCPA bribery-related enforcement actions used in the 2012 Report to cover all FCPA actions involving bribery through April 2013. The expanded dataset consists of observations on 136 publicly traded firms, and is combined with data on direct costs associated with FCPA investigations and stock market returns.

The results indicate that the initial revelation of an FCPA investigation is associated with an average 2.9 percent reduction in market capitalization for the targeted firm. This average, however, masks an important difference between firms that are charged with only bribery and those whose bribery charges are comingled with charges of financial fraud. Firms in the former category – charged only with bribery – suffer an average 1.5 percent loss, compared with those in the latter category – charged with bribery and financial fraud – that suffer average market capitalization losses of 16.3 percent. When abnormal returns are cumulated over all incremental revelations of information pertaining to the FCPA investigation, the average loss is much larger. Once again, the largest losses are for firms whose bribes are comingled with revelations about financial fraud at the company (-54.97 percent vs. -2.68 percent for firms without comingled financial fraud charges).

On average, the reduction in value for firms targeted by FCPA bribery actions that involve no financial fraud is explained entirely by direct costs (fines, penalties, legal, internal investigations, and monitoring). For bribery actions that also involve fraud charges, however, the average cumulative shareholder loss is 46.3 percent of market capitalization even after accounting for these firms' direct costs. This finding indicates that firms caught engaging in foreign bribery experience losses from the direct costs of the bribery investigation and enforcement action. When revelations of bribery are comingled with revelations of financial fraud, however, the firms also suffer extremely large reputational losses.

---

<sup>8</sup> *The Foreign Corrupt Practices Act: An Empirical Examination of Enforcement Trends, Phase I*, George Mason University Law & Economics Center Searle Civil Justice Institute, Sept. 2012, available at <http://www.masonlec.org/programs/45>.

The remainder of this Report proceeds as follows: Section 2 provides a brief background on the FCPA; Section 3 describes the data used for this Report; Section 4 presents estimates of the reduction in market value due to FCPA enforcement actions; Section 5 decomposes these reductions into direct and indirect costs; and Section 6 concludes.

## 2. BACKGROUND

### 2.1 The Foreign Corrupt Practices Act

To address concerns that U.S. companies were making payments to foreign officials to obtain or retain business, Congress amended the Securities Exchange Act of 1934 with the Foreign Corrupt Practices Act (FCPA),<sup>9</sup> making the U.S. the first country in the world to pass a law to prohibit payments to foreign government officials to secure a business advantage. The FCPA has two main provisions: the anti-bribery provision; and the books and records and internal control provisions. As a general matter, the anti-bribery provision prohibits the corrupt payment of money or “anything of value” to a “foreign official” to “obtain or retain business.”<sup>10</sup> The books and records provisions require that issuers “make and keep books, records, and accounts, which, in reasonable detail...accurately and fairly reflect the transactions and dispositions of the assets of the issuer.”<sup>11</sup> The FCPA defines “reasonable detail” as a level that “would satisfy prudent officials in the conduct of their own affairs.”<sup>12</sup> The internal controls provision requires that issuers devise and maintain a system of internal accounting controls sufficient to provide reasonable assurances that, among other things, “transactions are executed in accordance with management’s general or specific authorization;” “access to assets is permitted only in accordance with management’s general or specific authorization;” and “transactions are recorded as necessary to permit a preparation of financial statements in conformity with generally accepted accounting principles ... and to maintain accountability for assets.”

Because payments to a “foreign official” to “obtain or retain business” are frequently concealed or otherwise misrepresented on a company’s books and records (such as “miscellaneous expenses,” “costs of good sold” etc.), the books and records

---

<sup>9</sup> Foreign Corrupt Practices Act of 1977, Publ. L. No. 95-213, Stat. 1494 (codified as amended at 15 U.S.C. §§ 78a, 78dd-1, 78dd-2, 78ff, 78m, 78o.).

<sup>10</sup> 15 U.S.C. § 78dd-2(i)(1) *et seq.* (1998). The anti-bribery provisions apply to “issuers,” “domestic concerns,” and “persons” other than “issuers or “domestic concerns.” An “issuer” is generally a company (U.S. or foreign) that has a class of securities traded on a U.S. market or an entity that is otherwise required to file reports with the Securities and Exchange Commission (“SEC”). An “issuer” can also include a company that has American Depositary Receipts traded on a U.S. exchange. A “domestic concern” is generally any business form (e.g., private corporations, limited liability companies, partnerships, sole proprietorships) with a principal place of business in the U.S. or organized under U.S. law. A “domestic concern” also includes “any individual who is a citizen, national, or resident of the U.S.” As to U.S. “issuers” and “domestic concerns,” the FCPA contains both territorial jurisdiction and nationality jurisdiction. Nationality jurisdiction means that the FCPA’s anti-bribery provisions will apply even if the conduct at issue has no U.S. nexus. Thus, as to U.S. “issuers” and “domestic concerns,” the FCPA’s anti-bribery provisions have extraterritorial jurisdiction meaning that the FCPA can be violated if an improper payment scheme is devised and executed entirely outside of the U.S. A “person” other than an “issuer” or “domestic concern” can generally include foreign non-“issuer” companies and foreign nationals. The anti-bribery provisions will apply to such a “person” who “while in the territory of the U.S. . . . [uses] the mails or any means or instrumentality of interstate commerce” in furtherance of a improper payment scheme.

<sup>11</sup> 15 U.S.C. § 78m(b)(2)(A).

<sup>12</sup> 15 U.S.C. § 78m(b)(7). The term “reasonable detail” in this context means “such level of detail and degree of assurance as would satisfy prudent officials in the conduct of their own affairs.”

provision can also be implicated in a typical FCPA enforcement scenario.<sup>13</sup> Further, when improper payments are made, the enforcement agencies generally will assert that the internal control provisions were also violated on theory that the payments would have been detected and never paid if the company had proper internal controls (such as effective FCPA compliance policies, adequate supervision and control of foreign managers or third-party agents, sufficient checks and balances for spending corporate money, etc.). It is important to note, however, that the FCPA's books and records and internal control provisions are generic and often are implicated in purely domestic scenarios that have nothing to do with payments to "foreign officials" to "obtain or retain business."<sup>14</sup> Because this Report does not address these common "non-bribery" FCPA violations, unless otherwise noted, references to FCPA enforcement actions in this Report refer only to those matters implicating the FCPA's anti-bribery provisions.

The FCPA has dual enforcers – the DOJ and the SEC.<sup>15</sup> The DOJ is the sole agency responsible for criminal enforcement of the anti-bribery provisions and willful violations of the books and records and internal control provisions. The DOJ has jurisdiction over "issuers," "domestic concerns," and "persons" other than "issuers" and "domestic concerns" as those terms are described above.

Even though the FCPA does provide criminal and civil fine and penalty amounts, these amounts are often of little importance in arriving at actual amounts assessed in FCPA enforcement actions. Under the Alternative Fines Act, an FCPA criminal violation can result in a fine up to twice the benefit the bribe payer sought to obtain through the improper payment. Moreover, U.S. Sentencing Guidelines are used to calculate an advisory penalty range. Factors under the Guidelines that can affect a criminal fine include: the number of employees in the organization; whether high-level personnel were involved in or condoned the conduct; prior criminal history; whether the organization had a pre-existing compliance and ethics program; voluntary disclosure; cooperation; and acceptance of responsibility.<sup>16</sup>

The SEC has only civil law enforcement authority, but accordingly enjoys a lower burden of proof than the DOJ in prosecuting FCPA violations. The SEC has jurisdiction over "issuers" (and its employees and agents) and can bring civil charges for violations

---

<sup>13</sup> See, e.g., SEC v. Magyar Telekom Plc., Case No. 11 civ 9646 (S.D.N.Y. Dec. 20, 2011). See also Resource Guide to the FCPA, available at <http://www.justice.gov/criminal/fraud/fcpa/guide.pdf>; Danforth Newcomb, *The Foreign Corrupt Practices Act: FCPA Digest of Cases and Review Releases Relating to Bribes to Foreign Officials Under the Foreign Corrupt Practices Act of 1977*, 1814 Practising Law Institute Corporate Law and Practice Course Handbook Series 119 (2010) (discussing *Magyar Telekom* investigation).

<sup>14</sup> Counting through December 31, 2012, there were 1,019 non-bribery related enforcement actions initiated by the SEC and DOJ under the accounting provisions of the FCPA.

<sup>15</sup> Courts have held that the FCPA provides no private right of action. See *Lamb v. Phillip Morris Inc.*, 915 F.2d 1024 (6th Cir. 1990).

<sup>16</sup> Cooperation can lead to increased probability of a company being charged in an FCPA action, but also contributes to substantially lower (34.7%) monetary penalties. See Rebecca Files, Gerald S. Martin, & Stephanie J. Rasmussen, *The Monetary Benefit of Cooperation in Regulatory Enforcement Actions for Financial Misrepresentation*, Feb. 29, 2012, available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2026282](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2026282).

of the anti-bribery provisions and the books-and-records and internal control provisions. In recent years, the SEC also has pursued enforcement actions against non-issuers for violating the FCPA on the theory that the defendant, while acting as an agent of an issuer, violated the FCPA and/or aided or abetted issuer violations.<sup>17</sup>

DOJ uses three vehicles to resolve most corporate FCPA enforcement actions: non-prosecution agreements (NPAs); deferred prosecution agreements (DPAs); and plea agreements.<sup>18</sup> An NPA is a privately negotiated agreement between the DOJ and the company under which the DOJ agrees not to prosecute the company if it acknowledges responsibility for the conduct at issue and agrees to a host of compliance undertakings. NPAs are not filed with the court.<sup>19</sup> A DPA is filed with a court and has the same appearance as a criminal indictment, but the DOJ agrees to defer prosecution of the company if the company acknowledges responsibility for the conduct at issue and agrees to a host of compliance undertakings. After the relevant time period, the DOJ dismisses the criminal charges that were filed, but never prosecuted.<sup>20</sup> Under an NPA or DPA, the target company agrees to the admissibility of the government's statement of facts, which includes allegations of bribery. Under a plea agreement, the defendant corporation pleads guilty to the allegations in the criminal indictment and settles the charges by paying a penalty and agreeing to compliance and monitoring provisions.

The SEC typically resolves corporate FCPA cases through consent decrees in which the defendant does not admit to any wrongdoing, but only agrees to settle the charges by paying a civil penalty and adopting compliance measures.<sup>21</sup> The SEC's Division of Enforcement authorized its staff to enter into NPAs and DPAs in 2010, and has settled one case in this manner.<sup>22</sup>

## 2.2 Enforcement Trends

FCPA enforcement has been on a dramatic upward trend since the early 2000s. Of the 189 total actions from 1978-April 2013, 70 percent have occurred since 2005. Corporate penalties have also increased markedly. As documented in the 2012 Report, average real (2010 dollars) corporate penalties were \$5.4 million from 1978-2004, compared to \$60.2 million from 2005-2011. Penalties, however, are only one

---

<sup>17</sup> See, e.g., Complaint at 2-3, 10, SEC v. Snamprogetti, No. 4:10-cv-2414 (S.D. Tex. July 7, 2010), available at <http://www.sec.gov/litigation/complaints/2010/comp-pr2010-119.pdf>; Complaint at 1-3, SEC v. Panalpina, Inc., No. 21727 (S.D. Tex. Nov. 4, 2010), available at <http://www.sec.gov/litigation/complaints/2010/comp21727.pdf>.

<sup>18</sup> DOJ has increasingly used NPAs and DPAs to settle corporate criminal matters. See GOVERNMENT ACCOUNTABILITY OFFICE, CORPORATE CRIME: DOJ HAS TAKEN STEPS TO BETTER TRACK ITS USE OF DEFERRED AND NON-PROSECUTION AGREEMENTS, BUT SHOULD EVALUATE EFFECTIVENESS 14-15 (Dec. 2009); see also Peter Spivack & Sujit Raman, *Regulating the 'New Regulators': Current Trends in Deferred Prosecution Agreements*, 45 AM. CRIM. L. REV. 159 (2008).

<sup>19</sup> See Letter from Edward N. Siskel, Associate Deputy General Counsel, Office of the Deputy Attorney General to GAO at 2 (Dec. 15, 2009).

<sup>20</sup> See GAO, *supra* note 18, at 12.

<sup>21</sup> The SEC has begun to require admission of wrong doing in some recent settlements. See Dave Michaels, *SEC Says It Will Seek Admission of Wrongdoing More Often*, BLOOMBERG, June 18, 2013.

<sup>22</sup> See Tenaris to Pay \$5.4 Million in SEC's First-Ever Deferred Prosecution Agreement, May 17, 2011, available at <http://www.sec.gov/news/press/2011/2011-112.htm>.

component of FCPA enforcement costs. Internal investigations into FCPA violations as well as compliance and monitoring programs put into place as part of settlements can easily cost more than the penalties themselves.<sup>23</sup>

In addition to these direct costs, firms charged with violating the FCPA's bribery provision could suffer indirect costs associated with a diminished reputation. Previous research shows that many firms experience reputational losses when they are incriminated in other types of illegal or opportunistic behavior. A reputation loss refers to the present value of the firm's loss that accrues when counterparties change the terms of trade by which they are willing to do business. For example, firms that sell defective products experience declines in sales, and firms that restate earnings experience higher borrowing costs. Indeed, for some types of misconduct, the reputation loss swamps all of the direct costs incurred by the firm, and represents the most consequential impact on firm value.<sup>24</sup> Consequently, one argument against more intense bribery enforcement is that shareholders of firms charged with foreign bribery may already suffer large reputational losses in the form of decreased sales and increased costs. This is an empirical matter that we seek to address by examining actual FCPA enforcement actions.

---

<sup>23</sup> In Table 13 we report evidence on the sizes of internal investigation and compliance costs.

<sup>24</sup> Reputation losses are important for false advertising (Samuel Peltzman, *The Effects of FTC Advertising Regulation*, 24 J. OF L. & ECON. 403 (1981); product recalls (Gregg Jarrell & Sam Peltzman, *The Impact of Product Recalls on the Wealth of Sellers*, 93 J. OF POL. ECON. 512 (1985); air safety disasters (M. L. Mitchell & M. T. Maloney, *Crisis in the Cockpit? The Role of Market Forces in Promoting Air Travel Safety*, 32 J. OF L. & ECON. 329 (1989)); frauds of private parties (Cindy R. Alexander, *On the Nature of the Reputational Penalty for Corporate Crime: Evidence*, 48 J. OF L. & ECON. 489 (1999)) and (Deborah L. Murphy, Ronald E. Shrieves, & Samuel L. Tibbs, *Understanding the Penalties Associated with Corporate Misconduct: An Empirical Examination of Earnings and Risk*, 44 J. OF FIN. & QUANT. ANALYSIS 55, (2009)); investigations of IPO underwriters (Randolph Beatty, Howard Bunsis, & John Hand, *The Indirect Economic Penalties in SEC Investigations of Underwriters*, 50 J. OF FIN. ECON. 151 (1998)); defense procurement fraud (Jonathan M. Karpoff, D. Scott Lee, & Valaria P. Venzryk, *Defense Procurement Fraud, Penalties, and Contractor Influence*, 107 J. OF POL. ECON. 809 (1999)); financial misrepresentation (Jonathan M. Karpoff, D. Scott Lee & Gerald R. Martin, *The Cost to Firms of Cooking the Books*, 43 J. OF FIN. & QUANT. ANALYSIS 581 (2008)), earnings restatements (John R. Graham, Si Li, & Jianping Qiu, *Corporate Misreporting and Bank Loan Contracting*, 89 J. OF FIN. ECON. 44 (2008)), venture capital (VC) firms that face lawsuits from business partners (Vladimir Atanasov, Vladimir Ivanov & Kate Litvak, *Does Reputation Limit Opportunistic Behavior in the VC Industry? Evidence from Litigation Against VCs*, 67 J. OF FIN. 2215 (2011)); VC firms and the post-IPO performance of their portfolio firms (C. N. V. Krishnan, Vladimir Ivanov, Ronald Masulis & Ajal Singh, 2011, *Venture Capital Reputation, Post-IPO Performance and Corporate Governance*, 46 J. OF FIN. & QUANT. ANALYSIS 1925 (2009)); and repurchase completion rates (Alice A. Bonaime, *Repurchases, Reputation and Returns*, 47 J. OF FIN. & QUANT. ANALYSIS 469 (2010)). In contrast, reputation losses do not appear to be important, on average, for environmental violations (Jonathan M. Karpoff, John R. Lott, Jr., & Eric W. Wehrly, *The Reputational Penalties for Environmental Violations: Empirical Evidence*, 48 J. OF L. & ECON. 653 (2005)). For a survey of the evidence on reputational losses for different types of corporate misconduct, see Jonathan M. Karpoff, *Does Reputation Work to Discipline Corporate Misconduct?* in THE HANDBOOK OF CORPORATE REPUTATION (Michael L. Barnett & Timothy G. Pollock, eds., Oxford University Press, 2012).

### 3. DATA

Our sample consists of all FCPA enforcement actions initiated by the SEC and DOJ from January 1, 1978 through April 5, 2013 against publicly traded firms that involve foreign bribery.<sup>25</sup> To identify the enforcement actions, we searched for specific references to the bribery provisions of the FCPA (i.e., sections 78dd-1 through 78dd-3 and 30A) using the Lexis-Nexis FEDSEC:SECRET library and the PACER database.<sup>26</sup> To assure that we did not miss any bribery enforcement actions that used other provisions of the U.S. code without including bribery charges explicitly, we also searched for the terms “bribery”, “Foreign Corrupt Practices Act”, and “FCPA,” and read all resulting SEC and DOJ proceedings to determine if a violation included illegal payments to foreign officials. Since September 19, 1995, the SEC has posted selected enforcement releases at [www.sec.gov](http://www.sec.gov). The Department of Justice provided us additional enforcement data for the civil and criminal enforcement proceedings for which the DOJ was involved. Finally, we used EDGAR, PACER, Dow Jones’ Factiva, and Lexis-Nexis’ Legal Research and General News categories to gather additional information and news releases pertaining to the enforcement actions, including related class action and derivative lawsuits.

#### 3.1 Characteristics of Firms Subject to FCPA Enforcement Actions

Table 1 partitions the 139 firms in the sample across industry sectors and firm size-based deciles. The firms are grouped according to the industry definitions used by Transparency International (TI) and listed in declining order of TI’s Sector Score. The Sector Score is an index (scaled from 0 to 10) that reflects the survey respondents’ perceived prevalence of bribery within each sector, with higher scores indicating less bribery. According to the Sector Score, perceived bribery is least common in the agriculture industry and most common in public works contracts and construction.

---

<sup>25</sup> The sample does not include the 1,019 actions that involve non-bribery related books and records or internal control provisions under the FCPA.

<sup>26</sup> The Lexis-Nexis FEDSEC:SECRET library contains public releases from all SEC securities enforcement actions, and the PACER Service Center ([pacer.psc.uscourts.gov](http://pacer.psc.uscourts.gov)) contains federal court documents.

TABLE 1  
DISTRIBUTION OF BRIBERY-RELATED ENFORCEMENT  
ACTIONS BY INDUSTRY SECTOR AND FIRM SIZE

Sector	BPI Sector Score	Firms in the sector		Bribery Actions		Sized-Based Deciles:								
		Number	% of all firms	Number	% of all actions	Larger Firms				Smaller Firms				
						10	9	8	7	6	5	4	3 – 1	
Agriculture	7.1	33	0.5%	5	3.6%	2	1	1		1				
Light manufacturing	7.1	146	2.2%	0	0.0%									
Civilian aerospace	7.0	28	0.4%	0	0.0%									
Information technology	7.0	935	14.0%	9	6.5%	5	1			1	2			
Banking and finance	6.9	1,332	20.0%	4	2.9%	4								
Forestry	6.9	11	0.2%	0	0.0%									
Consumer services	6.8	495	7.4%	1	0.7%									1
Telecommunications	6.7	214	3.2%	5	3.6%	2	1	1						1
Transportation and storage	6.7	182	2.7%	7	5.0%		4		1	1				1
Fisheries	6.6	0	0.0%	0	0.0%									
Arms, defense and military	6.6	27	0.4%	7	5.0%	5			2					
Heavy manufacturing	6.5	1,073	16.1%	52	37.4%	29	9	6	4	2	1	1		
Pharmaceutical and healthcare	6.4	756	11.3%	20	14.4%	12	2	1	2	1	1			1
Power generation & transmission	6.4	185	2.8%	0	0.0%									
Mining	6.3	261	3.9%	0	0.0%									
Oil and gas	6.2	416	6.2%	18	13.0%	12	2	1	1	1	1			
Real estate, property, legal & business services	6.1	364	5.5%	4	2.9%	2		1						1
Utilities	6.1	63	0.9%	0	0.0%									
Public works contracts & construction	5.3	140	2.1%	7	5.0%	3	1		1		1	1		
Total		6,661	100%	139	100%	76	21	11	11	7	6	2		5
Percent						54.7	15.1	7.9	7.9	5.0	4.3	1.4		3.6

**Notes:** Size-based distribution of the publicly traded firms targeted by all 139 enforcement actions for foreign bribery initiated by the SEC and/or DOJ from 1978-2013q1 partitioned across Transparency International's (TI) industry sectors and size-based deciles. TI's Bribe Payers Index (BPI) Sector Score is based on survey responses, and measures the perceived likelihood that firms in the industry pay bribes to obtain or retain business in foreign countries. The Sector Score is scaled from 0-10, with higher scores indicating lower perceived likelihood that firms in the industry bribe. For 2011, the average Sector Score is 6.6. *Firms in the sector* are the number of active firms in Compustat in each TI-defined sector for fiscal year 2011. *Sized-Based Deciles* are calculated using firms in Compustat and are based upon market capitalization at the last reported fiscal year where the bribe took place

The industries with the most frequent FCPA enforcement actions are Heavy Manufacturing (52 actions), Pharmaceutical and Healthcare (20), and Oil and Gas (18). The high frequency of enforcement in some sectors, however, may be misleading because of the number of publicly traded firms in these industries. For example, TI's Pharmaceutical and Healthcare industry accounts for 11.3% of all Center for Research on Stock Prices (CRSP)-listed firms, similar to this industry's contribution to our sample: 14.4% of the 139 FCPA enforcement actions. By contrast, the Heavy Manufacturing industry comprises 16.1% of all CRSP-listed firms, but accounts for a disproportionate 37.4% of the FCPA enforcement actions. Oil and Gas accounts for 6.2% of all CRSP-listed firms, but accounts for 13.0% of all bribery-related enforcement actions. The Arms, Defense, and Military industry has the highest percentage of bribery-related enforcement actions relative to the number of firms in the industry, 25.9% (7/27). Seven of the 19 sectors had no firms targeted for bribery-related enforcement actions. Although TI's Sector Score ranks Agriculture as the industry whose firms are least likely to bribe, 15.2% of 33 firms in this industry have been targeted by anti-bribery enforcement actions.<sup>27</sup>

Table 1 describes two additional characteristics of the targeted firms. First, these firms tend to have high equity value: more than half (76) of the 139 targeted firms reside in the top decile of Compustat firms, while only 9.4% reside in the bottom five deciles.<sup>28</sup> Second, there appears to be no significant correspondence between the incidence of bribery-related enforcement actions and TI's Sector Score. Indeed, the correlation is *positive* 0.059 (statistically insignificant). In multivariate tests that control for other firm characteristics, however, we find that the probability that a firm faces enforcement action for bribery is indeed (negatively) related to the TI Sector Score.

Table 2 reports on the home (headquarter) countries of the charged firms. The FCPA is a U.S. law, but the enforcement agencies have broad jurisdiction over firms that issue securities or have business operations in or associated with operations in the United States. While most (99) of the targeted companies are headquartered in the United States, the remaining 40 firms are headquartered throughout the world. Table 2 reports the sample by primary security traded with 108 having equity securities issued in the United States, 25 with American Depositary Receipts (ADRs) listed in the United States and the remaining six either having an ADR trading over-the-counter or trade solely on a foreign overseas market. Most of the foreign headquartered firms (90%) have had their initial enforcement proceeding since 2003.

---

<sup>27</sup> Chi-square tests of proportionate frequencies reject the hypotheses that the sample is distributed equally across industries, either in terms of total actions or the fraction of firms in the industry targeted for enforcement ( $p < 0.001$  in both tests).

<sup>28</sup> A Chi-square test of proportionate frequencies rejects the hypothesis that the sample is distributed equally across size deciles ( $p < 0.001$ ).

TABLE 2  
TYPE OF SECURITY TRADED

Security	Frequency	Percent
Common stock	108	77.70
ADR	25	17.99
Foreign	6	4.32
<b>Total</b>	<b>139</b>	<b>100.00</b>

Table 3 includes TI's Bribe Payers Index (BPI) for each country where a charged firm was headquartered. To reiterate, a low BPI indicates a country where polled executives perceive bribe paying as commonplace (Russia has the lowest BPI of 6.1), and high BPIs indicate countries where bribery is unusual (The Netherlands, Sweden and Switzerland share the highest BPI of 8.8).<sup>29</sup>

TABLE 3  
HOME COUNTRY AND BRIBE PAYERS INDEX: 1978-2013

Country	Frequency	Percent	BPI
United States	99	71.22	8.3
United Kingdom	8	5.76	8.3
Germany	6	4.32	8.6
Switzerland	6	4.32	8.8
Netherlands	4	2.88	8.8
Italy	3	2.16	7.6
Japan	3	2.16	8.6
France	2	1.44	8.0
Bermuda <sup>1</sup>	1	0.72	7.5
China	1	0.72	6.5
Curacao <sup>1</sup>	1	0.72	7.5
Denmark <sup>2</sup>	1	0.72	8.7
Hungary <sup>3</sup>	1	0.72	7.5
Luxembourg <sup>4</sup>	1	0.72	8.4
Norway <sup>5</sup>	1	0.72	8.8
Sweden	1	0.72	8.8
<b>Total</b>	<b>139</b>	<b>100.00</b>	

**Notes:** Each home country is reported with Transparency International's 2011 Bribe Payers Index (BPI). The BPI ranks 28 of the world's largest economies according to the perceived likelihood that companies from these countries pay bribes abroad. Higher BPI scores indicate a lower likelihood of bribery. Proxies employed: 1. Average of United States, Brazil, Argentina and Mexico; 2. Average of Germany, Netherlands and Sweden; 3. Average of Germany, Italy and Russia; 4. Average of Belgium, France and Germany; 5. Sweden.

<sup>29</sup> Six of the 139 (4.3%) firms accused of bribery are domiciled in countries not represented in TI's BPI. For these we employ BPI scores from countries we judged as regionally and culturally similar to the missing country as BPI proxies. For Panama and Curacao, we average the BPIs of the United States, Brazil, Argentina and Mexico. For Denmark, we average the BPIs of Germany, Netherlands and Sweden. For Hungary, we averaged the BPIs of Germany, Italy and Russia. For Luxembourg, we averaged the BPIs of Belgium, France and Germany, and for Norway, we use Sweden's BPI.

### 3.2 Amounts paid and benefits received

For a payment to be considered a bribe under the FCPA, it must be paid with the purpose of receiving something of value. Tables 4 and 5 report data on bribes that come from narratives in the SEC and DOJ enforcement releases. Table 4 indicates that most bribes (85.6%) are paid with the intention of stimulating sales. Less common expressed motives for paying bribes include the procurement of licenses and permits (18.0%), travel and entertainment (11.5%), favorable taxes and tariffs (7.9%), and for political and regulatory favors (7.2%). The sum of the preceding percentages exceeds 100% because many narratives provide more than one purpose for their payment.

TABLE 4  
CHARACTERISTICS OF BRIBE: PURPOSE FOR THE PAYMENTS

Benefit sought	Frequency	Percent of reasons given	Percent of actions
Sales/revenue	119	65.7%	85.6%
License & permits	25	13.8%	18.0%
Travel & entertainment	16	8.8%	11.5%
Tariffs & taxes	11	6.1%	7.9%
Political & regulatory	10	5.5%	7.2%
Total	181	100.0%	

**Notes:** The sum of the frequencies (181) exceeds the number of actions (139) because 25 enforcement actions were for bribes with multiple purposes.

Table 5 reports the amounts of bribes paid, the amount of business the bribes were intended to garner, and the net gains (new revenues – bribes paid) expected by the bribing firm. The mean bribe stretched over 5.33 years (median of 5.0 years) and paid \$23.16 million (median of \$1.0 million). At the extreme, Siemens AG paid \$1.79 billion in bribes in ten countries over almost twenty-five years, and Montedison SpA and Halliburton each paid bribes exceeding \$100 million. Data on the expected benefits from the bribery comes from the SEC and DOJ, which must calculate the bribe-related gains to determine the firms' penalties.<sup>30</sup> The SEC and DOJ calculations emerge from a process that begins with the SEC or DOJ providing a "reasonable approximation" of the defendant's illegal sales and profit, at which time the burden of rebuttal falls on the defendant to demonstrate whether the SEC's calculation exceeds sales and profits that are related to the misconduct.<sup>31</sup> It is important to note that the process may yield downward biased estimates of the bribe-related benefits, because the defendant's incentives are to negotiate a low value for such benefits.<sup>32</sup> While some debate initially surrounded the determination of bribe-related benefits, the SEC and courts have relied

<sup>30</sup> The penalties include fines and disgorgement plus pre-judgment interest of ill-gotten gains. The calculation of the bribe-related benefits are guided by the U.S. Federal Sentencing Guidelines, which state that, "Pecuniary gain' ... means the additional before-tax profit to the defendant resulting from the relevant conduct of the offense. Gain can result from either additional revenue or cost savings" (See U.S. Sentencing Guidelines Ch. 8, *available at* [www.uscourts.gov/Guidelines/2011\\_Guidelines/Manual\\_HTML/Chapter\\_8.htm](http://www.uscourts.gov/Guidelines/2011_Guidelines/Manual_HTML/Chapter_8.htm)).

<sup>31</sup> See Elaine Buckberg & Frederick C. Dunbar, *Disgorgement: Punitive Demands and Remedial Offers*, 63 BUS. LAWYER, Feb. 29, 2008, *available at* [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1205762](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1205762).

<sup>32</sup> At the same time, however, the government may have incentives to ascribe a high value to the benefits.

on event studies and other methods familiar to financial economists to estimate the pecuniary gains and amounts to be disgorged since the early 1990s.<sup>33</sup>

TABLE 5

CHARACTERISTICS OF BRIBES: SIZE OF THE PAYMENTS AND EXPECTED BENEFITS DERIVED (N=139)

Description	Mean	Median	Minimum	Maximum
Size of bribe (\$)	23,159,777	1,000,000	1,250	1,791,700,000
Period of violation (years)	5.33	5.00	0.46	24.75
Sales to be influenced (\$)	970,608,176	42,888,047	12,495	39,825,000,000
Bribe to sales influenced	5.87%	3.13%	0.02%	48.89%
Total sales during violation (\$)	97,962,898,962	19,079,700,000	24,012,000	1,637,799,930,000
Expected bribe-generated sales to total sales (\$)	4.52%	0.30%	0.00%	200.00%
Expected pecuniary gain (\$)	28,328,986	2,787,000	1,000	1,100,000,000
Expected pecuniary gain to bribe ratio	6.79	2.50	0.04	202.90

**Notes:** Pecuniary gain is the additional multi-period before-tax profit to the defendant resulting from the bribe using information in the SEC and DOJ filings related to the action. Because early actions inconsistently reported either sales or before-tax profit, each firm's annual profit margin and tax rate, according to Compustat, were used to derive the benefit metric that was not reported.

The expected sales increases from the bribes were that the subject of the 139 FCPA enforcement actions average \$970.6 million (median = \$42.9 million). On average, the ratio of the bribe to the sales influenced is 5.87 percent (median is 3.13%). Expressed differently, the average bribing firm paid \$5.87 to generate \$100 of additional expected revenue, or \$3.13 if we focus on the median. In the extreme, one bribing firm paid \$48.49 to generate \$100 of additional expected revenue.

On average, the mean ratio of expected bribe-generated sales to the firm's total current sales across the entire violation period is 4.52% (median = 0.30%). (In the extreme, one firm expected to generate two dollars of additional sales for every dollar of current sales.) These numbers indicate that typical bribe payments affected a small, but meaningful fraction of these firms' business activities.

The mean expected pecuniary gain (sales net of expenses including the bribe) is \$28.33 million, and the median is \$2.79 million. The bottom row of Table 5 reports a mean ratio of the expected pecuniary gain to the bribe of 6.79. Thus, for every \$1 expended on bribes, the mean expected before-tax benefit was \$6.79 and the median was \$2.50.

<sup>33</sup> Mark L. Mitchell, & Jeffrey M. Netter, *The Role of Financial Economics in Securities Fraud Cases: Applications at the Securities and Exchange Commission*, 49 BUS. LAWYER 545 (1994).

## 4. THE EFFECT OF FCPA ENFORCEMENT ON COMPANY VALUE

This section examines the extent to which FCPA enforcement impacts firm value as measured by abnormal returns on share value. Below, we initially examine one-day initial reactions, followed by cumulative abnormal returns for all revelatory disclosures over the life cycle of the FCPA investigation.

### 4.1 Methodology

In this Report, we use event study methodology to estimate how revelations related to FCPA actions impact the value of defendant companies. Event studies examine how an event (e.g., the revelation of an FCPA violation) impacts a firm's share price in relation to the market, which serves as a control for price movements that may be related to phenomena affecting the entire market. The impact of the event on a company's value is measured by "abnormal returns" or merely the difference between the movement in the market and the movement in the affected firm's share price over the event period. Negative abnormal returns suggest that the event is expected to reduce the firm's profits going forward by, for example, reducing demand for its products or imposing unexpected costs. Because of its simplicity, event studies are widely used to analyze the impact of various financial, regulatory, and legal changes on firm value.<sup>34</sup>

There are several methods for calculating event impacts. This report utilizes the market-adjusted return method, in which abnormal returns for firm ( $A_i$ ) are calculated by subtracting the return on the value-weighted index of all stocks ( $R_M$ ) from the raw return of firm  $i$ 's equity ( $R_i$ ) over the event period ( $t$ ):<sup>35</sup>

$$A_{i,t} = R_{i,t} - R_{M,t}.$$

All stock market data used to compute abnormal returns comes from CRSP.<sup>36</sup>

In the tests reported below, we report one-day market-adjusted returns upon for the days on which financial markets potentially could react to important announcements about the bribery and its related enforcement action. We are able to narrow our event window to a single trading day because the announcements are time-stamped. When the time of the announcement is before 3:50 pm Eastern time on a given day  $t$ , we

---

<sup>34</sup> Jonah B. Gelbach et al., *Valid Inference in Single-Firm Event Studies*, 15 AM. L. & ECON. REV. 495 (2013); Douglas J. Lamdin, *Implementing and Interpreting Event Studies of Regulatory Changes*, 53 J. ECON. & BUS. 171 (2001).

<sup>35</sup> Brown and Warner demonstrate that the market-adjusted method performs as well as risk-adjusted methods for daily returns. See Stephen J. Brown & Jerold B. Warner, *Using Daily Stock Returns: The Case of Event Studies*, 14 J. FIN. ECON. 3, (1985). An additional reason that we use market-adjusted returns is that estimation periods surrounding the event – as required by risk-adjusted methods – are likely to be influenced by financial misrepresentation related to the bribery-related enforcement action, or enforcement activities by the DOJ and SEC.

<sup>36</sup> Center for Research in Security Prices, *available at* <http://www.crsp.com>.

measure the market-adjusted return for day  $t$ . If the time-stamp is after 3:50 pm Eastern time, we measure the market-adjusted return on trading day  $t+1$ .

## 4.2 Initial revelation of investigation

Table 6 reports the average one-day market-adjusted return for the initial revelation of each FCPA enforcement action. Averaging over all 136 firms with available returns data, the mean one-day abnormal return is -2.90 percent and the median is -0.27 percent. Both of these estimates are significant at the 1 percent level.<sup>37</sup> Thus, on average, the initial announcement of misconduct that involves bribery is associated with a significant decrease in the firm's share values.<sup>38</sup>

In most actions, the SEC and/or DOJ bring charges for other violations in addition to the charges of bribery. In 13 of the 136 enforcement actions, the bribery charges were accompanied by charges of financial fraud. The mean one-day abnormal return upon the initial revelation of FCPA charges for these 13 firms is -16.25 percent (median = -11.99%). For the remaining 123 firms, the mean one-day abnormal return is -1.48% (median = -0.15%). Although the small fraud sample and the impact of outliers encourages a cautious interpretation of these results, the large difference between these average one-day returns is statistically significant. Hence, the average abnormal return for firms that face contemporaneous fraud charges is much larger in magnitude than it is for firms that do not face fraud charges.

Table 6 also reports the mean and median one-day abnormal return upon the initial revelation of bribery-related enforcement actions for different subsamples partitioned by industry sector. The mean initial reaction to bribery charges across the 13 sectors ranges from -8.28% for nine information technology firms to 2.21% for four banking and finance firms. Enforcement actions involving charges of financial fraud occur in six of the 13 sectors. Regardless of sector, the average shareholder reaction to the initial revelation of an FCPA enforcement action involving bribery is consistently larger when the action involves charges of financial fraud. Only two of these six sectors with fraud-related bribery actions have more than one such action. The heavy manufacturing sector has six fraud-related actions with a -20.75% average and -16.70% median initial abnormal return as compared to a -0.86% average and 0.04% median initial abnormal return for 45 bribery actions in the same sector that were not accompanied by charges of financial fraud. The pharmaceutical and healthcare sector has three fraud-related actions with a -17.57% average and -8.91% median initial abnormal return as compared to a -1.93% average and 0.16% median initial abnormal return for 16 bribery actions in the same sector that were not accompanied by charges of financial fraud. Despite small samples, non-parametric tests indicate that these differences are statistically significant at the 10% level.

---

<sup>37</sup> The tables report both parametric t-statistics and non-parametric Wilcoxon signed-rank test statistics.

<sup>38</sup> To account for the possibility of contaminating events being responsible for some of the measured abnormal returns, a Lexis-Nexis news search was conducted over all event windows, resulting in a 48 potentially confounding events. In tests not reported there were no significant differences in abnormal returns when cases with potential contaminating events were removed from the sample.

**TABLE 6**  
**ABNORMAL RETURNS: INITIAL REVELATION DATE**

	All bribery actions	Actions without financial fraud	Actions with financial fraud	Difference
N	136	123	13	
Mean	-2.90%***	-1.48%**	-16.25%*	14.77%*
Median	-0.27%**	-0.15%*	-11.99%**	11.84%**
<b>Sector:</b>				
Agriculture	5	5		
BPI = 7.1	-2.32%	-2.32%		
	-0.20%	-0.20%		
Information technology	9	9		
BPI = 7.0	-8.28%	-8.28%		
	-1.22%	-1.22%		
Banking and finance	4	4		
BPI = 6.9	2.21%	2.21%		
	0.28%	0.28%		
Telecommunications	5	5		
BPI = 6.7	-0.62%	-0.62%		
	-0.73%	-0.73%		
Transportation and storage	7	6	1	
BPI = 6.7	-3.21%	-0.87%	-17.26%	16.39%
	-0.52%	-0.27%	-17.26%	16.99%
Arms, defense and military	7	6	1	
BPI = 6.6	-0.87%*	-0.84%*	-1.05%	0.21%
	-1.05%*	-1.03%*	-1.05%	0.02%
Heavy manufacturing	51	45	6	
BPI = 6.5	-3.20%*	-0.86%	-20.75%	19.89%*
	-0.12%	0.04%	-16.70%	16.74%
Pharmaceutical and healthcare	19	16	3	
BPI = 6.4	-4.40%	-1.93%	-17.57%	15.64%*
	-0.03%	0.16%	-8.91%	9.07%
Oil and gas	18	17	1	
BPI = 6.2	-0.69%	-0.58%	-2.50%	1.92%
	-0.80%	-0.68%	-2.50%	1.82%
Real est., prop., legal & business serv.	4	4		
BPI = 6.1	-2.12%	-2.12%		
	-1.59%	-1.59%		
Public works contracts & construction	7	6	1	
BPI = 5.3	-2.46%	-0.66%	-13.28%	12.62%
	0.16%	0.38%	-13.28%	13.66%

Notes: \*\*\*, \*\*, and\* indicate significance at .001, .01 and .10 levels, respectively.

### 4.3 Cumulative investigation announcements

Bribery-related FCPA enforcement actions usually involve a complex sequence of news reports, lawsuits, enforcement activities, and penalties that relate to the targeted firm's misconduct. With a total of 742 announcements for 136 actions, the average action in our sample has 5.46 such announcements that contain new information about the conduct and the corresponding penalties. That is, in addition to the initial revelation about the bribe – which can come before the announcement of a government investigation – there is an average of 4.46 additional announcements about

the nature of the bribery and the penalties imposed by the SEC and DOJ. In identifying the additional announcements, we ignore multiple news stories that convey information that previously was made public in prior press releases or SEC and DOJ proceedings.

TABLE 7  
ABNORMAL RETURNS: CUMULATIVE FOR ALL EVENT DATES

	All bribery actions	Actions without financial fraud	Actions with financial fraud	Difference
N/Events	136/742	123/551	13/191	
Mean	-7.68%**	-2.68%*	-54.97%*	52.29%*
Median	-1.06%***	-0.72%**	-22.22%**	21.50%***
<b>Sector:</b>				
Agriculture	5/14	5/14		
BPI = 7.1	-1.85%	-1.85%		
	-0.20%	-0.20%		
Information technology	9/39	9/39		
BPI = 7.0	-15.97%	-15.97%		
	0.23%	0.23%		
Banking and finance	4/11	4/11		
BPI = 6.9	0.56%	0.56%		
	-0.56%	-0.56%		
Telecommunications	5/40	5/40		
BPI = 6.7	14.37%	14.37%		
	-3.10%	-3.10%		
Transportation and storage	7/22	6/17	1/5	
BPI = 6.7	-4.39%	-1.42%	-22.22%	20.08%
	-0.98%*	-0.87%*	-22.22%	21.35%
Arms, defense and military	7/25	6/21	1/4	
BPI = 6.6	-2.09%	-2.26%	-1.03%	-1.23%
	-1.03%*	-1.51%	-1.03%	-0.48%
Heavy manufacturing	51/278	45/198	6/80	
BPI = 6.5	-7.93%*	-2.58%*	-48.09%	45.51%
	-1.58%**	-0.72%*	-24.03%*	23.31%*
Pharmaceutical and healthcare	19/141	16/60	3/81	
BPI = 6.4	-21.46%	-5.26%	-107.84%	102.58%
	-1.19%	-0.38%	-45.21%	44.83%*
Oil and gas	18/110	17/93	1/17	
BPI = 6.2	-4.21%	-0.87%	-61.05%	60.18%
	-0.22%	-0.05%	-61.05%	61.00%
Real est., prop., legal & business serv.	4/20	4/20		
BPI = 6.1	-6.24%	-6.24%		
	-4.01%	-4.01%		
Public works contracts & construction	7/42	6/38	1/4	
BPI = 5.3	-0.99%	1.88%	-18.22%	16.34%
	3.35%	3.68%	-18.22%	14.54%

**Notes:** Events include the initial revelation plus announcements of an informal inquiry, formal investigation, Wells Notice, earnings restatements, private lawsuits, SEC and DOJ enforcement actions. \*\*\*, \*\*, and\* indicate significance at .001, .01 and .10 levels, respectively.

Table 7 reports on the abnormal returns cumulated over all informational events available for each action in the sample. The cumulative abnormal return for firm  $j$  ( $CAR(k)_j$ ) is the sum of the one-day abnormal returns ( $AR_{e(k),j}$ ) summed over the  $n(k)_j$  unique events that convey information about firm  $j$ 's bribery and the related penalties:

$$CAR(k)_j = \sum_{e(k)=1}^{n(k)_j} AR_{e(k),j}$$

The identifier  $k$  refers to the type of information conveyed in the announcement. When  $k = \textit{all announcements}$ , we sum over all initial and subsequent announcements; as reported above, the average number of announcements per enforcement action is 4.99 (i.e., the mean value of  $n(k = \textit{all announcements})_j$  is 4.99). We also sum over only announcements that contain information about bribery ( $k = \textit{bribery only}$ ), information about bribery and financial misrepresentation ( $k = \textit{mixed}$ ), and information only about financial misrepresentation ( $k = \textit{misrepresentation only}$ ). Many of the enforcement actions extend over several months, or years. Note that we do not cumulate returns over all days during which the enforcement action is ongoing. Rather, our measure of cumulative abnormal returns sums the one-day abnormal returns only for the unique trading days associated with discrete, new information about the bribery or its related enforcement action.

For the full sample of 136 firms, the mean cumulative abnormal return is -7.68 percent (median of -1.06%). Consistent with the evidence presented in Table 8, the magnitude of the loss is significantly larger for enforcement actions that involve financial fraud, although we remain cautious in interpreting results given the relatively small sample sizes. For 13 actions with contemporaneous fraud charges, the mean cumulative abnormal return is -54.97 percent (median = -22.22%). For the 123 actions without fraud charges, the mean cumulative abnormal return is -2.68 percent (median = -0.72%).

Turning to the sector-specific statistics in Table 7, the mean cumulative abnormal return across the 13 sectors range from -21.46 percent for nineteen pharmaceutical and healthcare firms to 14.4 percent for five telecommunications firms. Enforcement actions in five of the six sectors involving charges of financial fraud are associated with larger negative cumulative abnormal returns than their sector counterparts that do not involve charges of fraud. The exception is a firm charged with financial fraud in the arms, defense and military sector whose -1.03 percent cumulative market-adjusted loss was less negative than the -2.26 percent cumulative average abnormal return (median of -1.51%) of its six sector counterparts that were not charged with financial fraud. Cumulative abnormal returns in the heavy manufacturing sector averaged -48.09 percent (median of -24.03%) for firms with fraud-related actions as compared to an average of -2.58 percent (median of -0.72%) for heavy manufacturing firms with non-fraudulent bribery-related actions. The pharmaceutical and healthcare sector has 16 non-fraudulent bribery actions with a -5.26 percent cumulative average abnormal return (median of -0.38%) in contrast to a startling -107.8 percent average and -45.21 percent median for three fraud-related actions in that sector. This extreme loss is driven by HealthSouth's -277 percent cumulative abnormal return over 67 separate announcements related to its FCPA enforcement action including one-day losses of 97.2 and 43.9 percent, along with three other one-day losses of roughly 25 percent each. Because we cumulate these returns by addition rather than by compounding, these five returns alone account for a loss of -216 percent.

## 5. DECOMPOSITION OF REDUCTION IN FIRM VALUE

The results in Tables 6 and 7 indicate that firms facing bribery enforcement actions lose share value, on average, although most of the losses are associated with charges of financial fraud and/or misrepresentation. This section examines the extent to which these losses are the result of direct or indirect costs.

### 5.1 Direct Costs: Fines and Penalties, Investigation, and Legal Expenses

#### 5.1.1 Fines and penalties

Table 8 summarizes the monetary fines and penalties imposed on the sample firms by the SEC and DOJ, and via class action lawsuits. These include fines, criminal

TABLE 8  
MONETARY PENALTIES FOR BRIBERY VIOLATIONS

(\$millions)		All bribery actions (136)	Actions without financial fraud charges (123)	Actions with financial fraud charges (13)	Difference
Market capitalization	N	136	123	13	
	Sum	3,406,473.57	3,198,569.97	207,903.60	
	Mean	25,047.60	26,004.63	15,992.58	10,012.1
	Median	5,282.54	5,640.45	492.42	5,148.0*
	Min	4.82	4.82	7.22	
	Max	386,402.07	386,402.07	87,255.34	
Penalties imposed on firms	N	136	123	13	
	Sum	5,614.81	5,352.72	262.09	
	Mean	41.29	43.52	20.16	23.36
	Median	4.74	4.91	0.30	4.61
	Min	0.00	0.00	0.00	
	Max	1,658.50	1,658.50	103.00	
Class action derivative settlements	N	17	11	6	
	Sum	7,021.17	300.90	6,270.27	
	Mean	413.01	27.35	1,120.04	-1,092.7
	Median	10.50	3.70	12.61	-8.91
	Min	0.00	0.00	0.00	
	Max	3,410.80	137.50	3,410.80	
Total firm monetary penalties	N	136	123	13	
	Sum	12,635.98	5,653.62	6,982.36	
	Mean	92.91	43.52	537.10	-493.6
	Median	5.20	4.91	0.53	4.38
	Min	0.00	0.00	0.00	
	Max	3,513.80	1,658.50	3,513.80	
% total penalties to market capitalization	Mean	1.63%***	1.12%***	6.44%	-5.35%
	Median	0.08%***	0.07%***	0.73%**	-0.66%

**Notes:** The table presents monetary penalties assessed by regulators on the firm only, related private class and derivative actions, and the total of all monetary penalties against the firm. Asterisks next to the mean and median in the Difference column represent significance of a t-test and rank sum test respectively where \*\*\*, \*\*, \* indicate significance at the 0.001, 0.01, and 0.10 levels, respectively.

penalties, and civil judgments. The mean penalty imposed by regulators is \$41.29 million. The mean, however, reflects several large outliers, including a penalty of \$1.66 billion levied against Siemens and \$600.2 million against Halliburton/KBR, both of which had bribery programs that extended over many years. The median penalty is \$4.74 million.

Class action lawsuits were filed in conjunction with 17 of the 136 enforcement actions, resulting in settlements that total \$7,021.17 million.<sup>39</sup> Most of this, however, reflects a large private settlement of \$3,053 million by Tyco International, Inc. for a massive financial fraud, with which bribery charges were only tangentially related. Note that the mean fine imposed by regulators is higher in the 123 actions that do not involve financial fraud (\$43.52 million versus \$20.16 million), whereas the private lawsuit settlements tend to be larger among the 13 actions that do involve fraud (\$27.35 million versus \$1,120.04 million). Summing monetary penalties from both, regulators and private lawsuits, the unconditional mean is \$92.91 million (median of \$5.20 million). For the 123 bribery actions without fraud, the mean monetary penalty is \$43.52 million and the median is \$4.91 million. For the 13 fraud-related actions, the mean is much larger, \$537.10 million, but the median is smaller, \$0.53 million.

These results indicate that monetary penalties of some type are imposed in most bribery actions. In some actions the penalties are large. But for the median enforcement action the direct legal penalty is small in relation to firm value. The bottom rows in Table 5 report that the mean monetary penalty is 1.63% of the firm's market capitalization, and the median is 0.08%. The average monetary penalties are larger when financial fraud charges are included, but the difference is not statistically significant.<sup>40</sup>

### **5.1.2 Investigation, legal and monitoring expenses**

The U.S. Chamber of Commerce asserts that firms that are targeted for anti-bribery enforcement actions, "... spend enormous sums on legal fees, forensic accounting, and other investigative costs before they are even confronted with a fine or penalty..."<sup>41</sup> To investigate this claim on firms' reported direct expenses incurred as a result of their bribery investigations data were collected. All 10-K, 10-Q and 8-K filings for the period from the initial revelation of bribery to the resolution of the enforcement action were searched, and revealed self-reported data on these expenses for 46 of the 139 enforcement actions.

Table 9 summarizes these direct legal and forensic expenses. The mean expense is \$66.98 million, with a median of \$9.78 million. The minimum reported

---

<sup>39</sup> There is no private right of action conferred under any of the provisions of the FCPA. See *Lamb v. Philip Morris, Inc.*, 915 F.2d 1024 (6th Cir. 1990). Therefore, many related class action lawsuits are brought under other securities laws, such as section 10(b)-5 of the Securities and Exchange Act.

<sup>40</sup> In addition to these monetary fines and penalties, the SEC and DOJ frequently impose non-monetary sanctions, which are not the focus of this report.

<sup>41</sup> See Weissmann & Smith, *supra* note 5, at 5.

amount is \$380,000, and the maximum, reported by Siemens AG, is \$1.2 billion. These self-reported expenses undoubtedly reflect reporting biases. They may include allocated expenses that are not directly related to the firm's bribery-related legal expenses. They may underreport the costs of managers' time in dealing with the bribery charges. It also is not clear whether the subset of firms that report their direct legal expenses have higher or lower expenses compared to firms that do not report these expenses. Nonetheless, the numbers from these firms provide a rough estimate of the magnitude of these firms' legal expenses due to their bribery-related charges. Among these 46 firms, the mean reported legal expense equals 1.69% of the firm's market capitalization, and the median is 0.87%. Two firms – Elandia International Inc. and Innospec, Inc. – have extraordinary investigation cost to market capitalization ratios of 15.05% and 13.63%. Excluding these two outliers, firms incur internal costs related to its bribery investigation that average 1.12% of the firm's market capitalization (median = 0.80% of market capitalization).

TABLE 9  
INVESTIGATION COSTS AS A PERCENT OF  
MARKET CAPITALIZATION FOR 46 FIRMS IN SAMPLE (\$MIL)

	N	Mean	Median	Minimum	Maximum
Market capitalization (\$ mil.)	46	14,191.34	1,347.59	11.17	146,793.30
Investigation costs (\$ mil.)	46	66.98	9.78	0.38	1,200.00
% of market capitalization	46	1.69%	0.87%	0.03%	15.05%
% of market capitalization, truncated sample	44	1.12%	0.80%	0.03%	3.98%

**Notes:** Two outlier observations with values of 13.63% and 15.05% removed in truncated sample.

Table 9 summarizes the investigation expenses for the 46 firms that reported such expenses in SEC filings or through public releases, and for the subsample of 44 firms without extreme values. Table 10 presents the results of a least squares regression model using these 44 observations, which is used to predict the investigation costs for the remaining firms in the sample. Table 13 presents statistics for the entire sample using the actual investigations costs where available and the predicted values for the missing observations. Specifically, the following equation was estimated:

$$\begin{aligned}
 Cost_j = & \\
 & \alpha + B_1 lMCAP + B_2 lBRIBE + B_3 \%SALES + B_4 lCOUNTRIES + B_5 CHARGES + \\
 & B_6 TIB + B_7 TIC + \varepsilon_j \quad , \quad (1)
 \end{aligned}$$

where *lMCAP* is the log of market capitalization, *lBRIBE* is the log of the bribe amount, *%SALES* is the ratio of the ratio of value of sales influenced to the total value of sales during violation period, *lCOUNTRIES* is the log of the number of countries involved, *CHARGES* is the number of unique charges in the information or complaint, *TIB* is the Transparency International Bribe Payer industry sector score, and *TIC* is the Transparency International Corruption Perception Index.

Table 10 reports the results from estimating Eq. (1) using a Tobit model for a censored dependent variable and data from the 44 firms with reported investigation costs (excluding the two outliers). Investigation costs are negatively related to *IMCAP* and positively related to the fraction of the firm's sales that are attributable to the bribe payments and the number of countries involved in the bribery investigation. Investigation costs are marginally related to the number of unique charges brought by regulators. The coefficients on the remaining explanatory variables are insignificant at standard levels. Although the parameters are estimated with a small sample, Table 11 shows that the fitted values of investigation costs for the 44 reporting firms closely approximate their actual investigation costs.

TABLE 10  
OLS REGRESSION ESTIMATES OF INVESTIGATION COSTS  
FOR 44 FIRMS WITH REPORTED VALUES

Parameter	Estimate	Prob >  t
Intercept	-0.0008	0.968
Log(market capitalization)	-0.0036	0.000
Log(bribe amount)	0.0010	0.144
% sales influenced to total sales	0.0385	0.007
Log(number of countries involved)	0.0025	0.050
Number of unique charges	0.0005	0.109
TI Bribe Payer Industry Sector Score	0.0037	0.256
TI Corruption Perception Index	-0.0013	0.493
<i>N</i>	44	
<i>F</i> (7, 36)	9.95	0.000
<i>R</i> <sup>2</sup>	60.19	

TABLE 11  
COMPARISON OF ACTUAL VS. PREDICTED INVESTIGATION  
COSTS FOR 44 FIRMS IN REGRESSION

	<i>N</i>	Mean	Median	Min	Max
Actual %	44	1.12%	0.80%	0.03%	3.98%
Predicted %	44	1.21%	1.10%	0.02%	3.47%

**Notes:** Censored prediction at lowest observed value of 0.03%.

Firms subjected to bribery enforcement actions sometimes are required to pay for a monitor who observes the firm's activity for some specified interval to assure that the firm complies with the terms of its settlement. The monitor's compensation and expenses are borne by the firm. An exhaustive search of Deferred Prosecution Agreements and sentencing documents revealed that 26 firms were assigned such monitors along with the term or duration of each monitor's assignment. The 10K filings of these firms revealed five firms who provided specific information about costs associated with the monitors. We calculated the average cost per month of the monitors and applied this monthly cost to the remaining 21 firms that had assigned monitors. Table 12 reports that the average monitoring assignment for the five reporting firms lasted 3.2 years and cost the firm an average of \$4.47 million per year (\$372,500 per month). Applying these monthly monitoring costs to the 26 firms for which monitors

were imposed indicates that monitoring costs represent an average of 0.98 percent (median of 0.18%) of the firm's market capitalization.

TABLE 12  
MONITORING COST ESTIMATES

	N	Mean	Median	Min	Max
<b>Actions with observed costs:</b>					
Term required (years)	5	3.20	3.00	2.00	5.00
Market capitalization (\$ mil.)	5	14,291.72	320.65	256.73	70,100.00
Monitor cost (\$ mil.)	5	17.33	10.20	2.55	52.00
Per year (\$ mil.)	5	4.47	3.40	1.27	10.40
% of market capitalization	5	2.15%	2.07%	0.07%	4.56%
<b>Actions with monitor required:</b>					
Term required (years)	26	2.61	3.00	0.42	5.00
Market capitalization (\$ mil.)	26	15,987.31	6,550.00	198.66	90,300.00
Estimated cost (\$ mil.)	26	12.27	12.56	1.86	52.00
Per year (\$ mil.)	26	4.47	4.47	1.27	10.40
% of market capitalization	26	0.98%	0.18%	0.01%	6.76%

Table 13 shows the actual and predicted costs for all firms in the sample. Actual costs are used for the 46 firms that report data, and the estimated parameters from (1) are used to fit costs values for the remaining 90 firms without cost information. Average costs for the entire sample are \$81.4 million (median = \$26 million), which translate into an average of 1.25 percent of market capitalization (median = 0.69%). Monitors were assigned to 26 of the 136 firms, so expected monitoring costs are weighted by the ex post probability of a firm being assigned an internal monitor ( $26/136 \times 0.98\% = 0.19\%$ ). Thus, estimated expected monitoring costs are 0.19 percent of a firm's market capitalization and the total of investigation and monitoring costs equals 1.43 percent of a firm's market value, on average (median = 0.74%).

TABLE 13  
TOTAL INVESTIGATION AND MONITORING COSTS  
USING ESTIMATES FOR MISSING OBSERVATIONS

	N	Mean	Median	Min	Max
Market capitalization (\$ mil.)	136	25,047.60	5,282.54	4.82	386,402.07
Investigation costs (\$ mil.)	136	81.39	25.97	0.11	1,306.68
% of market capitalization	136	1.25%	0.69%	0.03%	15.05%
Monitoring costs (\$ mil.)	136	2.35	0.00	0.00	52.00
% of market capitalization	136	0.19%	0.00%	0.00%	6.76%
Total investigation & monitoring (\$ mil.)	136	83.73	32.48	0.11	1,306.68
% of market capitalization	136	1.43%	0.74%	0.03%	18.19%

**Notes:** Actual values were used for 46 (5) investigation (monitoring) expenses and estimated costs from the model were used for 90 (21) investigation (monitoring) enforcement actions.

## 5.2 Indirect costs imposed by bribery enforcement actions

### 5.2.1 Restatement effect

Table 14 assembles results from Tables 7-13 to compare of the sources of shareholder loss associated with bribery enforcement actions. Averaging over all 136

bribery enforcement actions in the sample, the mean cumulative loss in share value is 7.68%. On average, firms pay fines and penalties equal to 1.63% of market capitalization, incur investigation and legal costs equal to an additional 1.25% of market capitalization and monitoring expenses equal to 0.19% of their market capitalization. In sum, average total direct costs equal 3.06% of a firm's market capitalization, this leaves an average 4.62% loss in share value unaccounted for and suggests that firms pay substantial indirect costs associated with their bribery enforcement actions, in addition to the direct costs reflected in fines, penalties, investigation and monitoring costs.

TABLE 14  
SUMMARY OF TOTAL COSTS AND INDIRECT COSTS FOR FIRMS CHARGED WITH FOREIGN BRIBERY

	All bribery actions (136)		Actions without financial fraud charges (123)		Actions with financial fraud charges (13)		Difference	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Cumulative total loss (from Table 7)	7.68%**	1.06%***	2.68%*	0.72%**	54.97%*	22.22%**	-52.29%*	-21.50%***
<i>Direct costs:</i>								
Fines and penalties	1.63%***	0.08%***	1.12%***	0.07%***	6.44%	0.73%**	-5.32%	-0.66%
Investigation expense	1.25%***	0.69%***	1.16%***	0.61%***	2.04%***	1.88%***	-0.88%*	-1.27%***
Monitoring expense	0.19%**	0.00%***	0.19%**	0.00%***	0.16%	0.00%	0.03%	0.00%
<i>Total direct costs</i>	3.06%***	1.08%***	2.47%***	0.87%***	8.65%*	3.82%***	-6.18%	-2.95%***
<i>Indirect costs:</i>								
Restatement effect	0.80%**	0.00%	0.54%	0.00%	3.30%*	0.00%	-2.76%	0.00%
Reputation loss	3.82%*	-0.67%	-0.33%	-0.89%	43.03%*	17.18%*	-43.36%*	-18.07%***
<i>Total indirect cost</i>	4.62%*	-0.54%	0.21%	-0.75%	46.32%*	17.18%*	-46.11%*	-17.93%***

**Notes:** The cumulative total loss is the negative of the sum of the market-adjusted one-day stock returns over all key informational events that pertain to a given bribery-related enforcement action. *Fines and penalties* are the total fines and disgorgement levied against the firm by regulatory agencies plus class action settlements paid by the firm (net of D&O insurance proceeds) divided by the firm's market capitalization at the close of trading the day before the initial public announcement of the misconduct. The *Investigation and legal costs* are calculated for 46 firms for which data are available. For the remaining 90 firms, the investigation and legal costs are the fitted values from the model reported in Table 6. The *Restatement effect* is the sum of the one-day market-adjusted stock returns on days during the enforcement action on which the firm announced an earnings restatement. The *Reputation loss* is the residual of the *Cumulative total loss* minus *total direct costs* minus the *restatement effect*. The difference column reports the difference in the means and medians between the actions with and without fraud charges. Significance levels are based on a t-test and sign rank test, respectively, where \*\*\*, \*\*, \* indicate significance at the 0.001, 0.01, and 0.10 levels, respectively.

One indirect cost is that investors re-value the firm in light of information that the firm's financial statements previously were incorrect. The revaluation may reflect investors' judgment that share prices previously were inflated by false financial information.<sup>42</sup> In bribery actions that do not involve fraud, the financial statement inaccuracies typically reflect attempts to conceal bribery payments rather than to inflate assets or deflate liabilities. Yet, share prices may fall simply because investors learn that the firm's financial statements are less transparent than previously thought. Some of the events included in our measure of the cumulative loss in share values are financial restatements. As a crude estimate of the restatement effect on share values, the abnormal loss in share values is subtracted on such restatement days. Averaging over all 136 firms, the mean share value loss on restatement announcements that are associated with the misconduct is 0.80 percent. The median firm has no restatement events, so the median restatement effect is zero. Among actions without financial fraud charges, the mean restatement effect is 0.54 percent of market capitalization, and among actions with fraud charges, the mean is 3.30 percent, which suggests that bribery enforcement actions involving financial fraud charges are associated with more significant financial restatements.

### 5.2.2 Reputation loss

The results summarized in Table 14 also provide evidence on the magnitude of the reputational loss associated with bribery enforcement actions. Fines, penalties, investigation, and legal costs, plus the restatement effect, together explain half of the total loss in firm value (3.86 percent of market capitalization). The remaining 3.82 percent loss can be interpreted as an estimate of the average reputational loss experienced by firms facing sanctions for foreign bribery.<sup>43</sup>

These data, however, are influenced by the subsample of actions in which the bribery enforcement action is mixed with charges for financial fraud. Excluding actions that include financial fraud yields a sample that more narrowly represents the impacts of bribery enforcement. For the sample of 123 actions with no financial fraud charges, the mean cumulative share loss is 2.68 percent. We can attribute an average of 1.12 percentage points of the 2.68 percent loss to the fines and penalties paid by these firms, 1.16 percentage points to their investigation and legal costs, 0.19 percentage points to their monitoring costs, and an additional 0.54 percentage points to the restatement effects of their corresponding financial restatements. This yields an estimate of the average reputational loss from the bribery component of these enforcement actions equal to -0.33% of market capitalization. A negative reputation loss suggests that these firms' reputations actually benefit from these enforcement actions.

---

<sup>42</sup> See Jonathan M. Karpoff, D. Scott Lee & Gerald R. Martin, *The Cost to Firms of Cooking the Books*, 43 J. OF FIN. & QUANT. ANALYSIS 581 (2008).

<sup>43</sup> See Gregg Jarrell & Sam Peltzman, *The Impact of Product Recalls on the Wealth of Sellers*, 93 J. OF POL. ECON. 512 (1985); and Deborah L. Murphy, Ronald E. Shrieves, & Samuel L. Tibbs, *Understanding the Penalties Associated with Corporate Misconduct: An Empirical Examination of Earnings and Risk*, 44 J. OF FIN. & QUANT. ANALYSIS 55, (2009), who employ similar methodology.

It is possible that firms targeted for bribery enforcement actions actually experience reputational benefits. Perhaps the scrutiny that accompanies such investigations improves the reliability of these firms' financial reporting. It is important to note, however, that the measure of the average reputational effect is not statistically significant. So a more reasonable inference is that firms that are caught committing foreign bribery violations experience no significant reputational losses, as long as the bribery related enforcement action is not comingled with charges of financial fraud.

Consistent with the preceding interpretation, the 13 firms whose FCPA charges accompany charges of financial fraud suffer an average reputation loss equivalent to 43.03 percent of market capitalization (median of 17.18%). The difference between the estimated average loss for the fraud and no-fraud sample is significant at the 10 percent level using a parametric t-test, and at the 0.1 percent level using the Wilcoxon test. These results are consistent with the conjecture that firms' reputational losses for engaging in foreign bribery is negligible compared to the reputational loss when the firm also faces charges for financial fraud.

### **5.2.3 Determinants of firms' indirect costs from foreign bribery actions**

Table 15 reports ordinary least squares estimates with robust estimators from cross-section regressions using data on 136 of 139 firms with available data. These results illuminate the nature of the indirect costs incurred by firms that are targeted by bribery-related enforcement actions. In Models 1 and 2, the dependent variable is the size of all indirect costs, defined as the firm's cumulative abnormal return,  $CAR(k=all\ events)_j$ , minus its fines, penalties, investigation, monitoring and legal costs measured as a fraction of market capitalization. In Models 3 and 4, the dependent variable is the reputation loss, which is the indirect cost minus the abnormal return on days during the enforcement period in which the firm announced a restatement.

Three potential determinants of firms' indirect costs are examined: firm characteristics, bribe characteristics, and enforcement characteristics. Firm characteristics include: (i) the natural log of the firm's market capitalization; (ii) market-to-book value of assets ratio; (iii) Transparency International's Bribe Payers Index Industry Sector Score of the targeted firm, with higher values representing industries in which bribery is thought to be rare; (iv) Transparency International's Bribe Payers Index based upon headquarters location, with higher values representing firms from countries that are considered relatively free of corruption; and (v) industry sector dummies created by mapping 4-digit Standard Industry Classification codes into Transparency International's 19 industry sectors using the most frequent industry, heavy manufacturing, as the necessary exclusion.

Characteristics of the bribe include: (i) the natural log of the number of countries involved in the bribery activities; (ii) the natural log of the violation period, measured as the number of years the bribery violation persisted plus a constant of 2.227; (iii) the natural log of the total amount of bribes paid; (iv) the sales influenced by the bribes, as a percent of the firm's total sales; and (v) the mean of Transparency International's

Corruption Perceptions Index of corruption for the countries in which the bribery occurred, with higher values indicating less corruption

Characteristics of the enforcement action include: (i) the amount of regulatory penalties assessed on the firm expressed as a percent of market capitalization; (ii) the amount of investigation costs incurred by the firm expressed as a percentage of market capitalization (estimated as described in Table 9); (iii) an indicator variable set equal to one if the bribery charges are accompanied by charges of financial fraud; (iv) an indicator variable set equal to one if the firm was involved in a previous bribery enforcement action (recidivist); and (v) the number of specific violations cited in the enforcement action related to the misconduct.

The firm's market-to-book ratio and the sales influenced by the bribes, as a percent of the firm's total sales are highly correlated with a correlation coefficient of 0.80.<sup>44</sup> Models 1 and 3 include the market-to-book ratio and exclude the sales influenced variables while Models 2 and 4 exclude the market-to-book ratio and include the sales influenced variables. Due to their high correlation, including both in the same model inflates standard errors and makes interpretation the statistical significance of their coefficient estimates unreliable.

---

<sup>44</sup> Market-to-book is calculated using the market value of equity the day prior the first public revelation of a potential FCPA violation and financial data from the last fiscal year reported prior to this event.

TABLE 15  
DETERMINANTS OF FIRMS' INDIRECT COSTS FROM FOREIGN BRIBERY ACTIONS

	Indirect Cost		Reputation Loss	
	(1)	(2)	(3)	(4)
Log(market capitalization)	0.0093 0.467	0.0135 0.323	0.0111 0.318	0.0149 0.205
Market-to-book	0.0239*** 0.000		0.0220*** 0.000	
% sales influenced to total sales		0.2489** 0.008		0.2333** 0.005
Log(bribe amount)	-0.0219* 0.032	-0.0268* 0.015	-0.0225* 0.011	-0.0269** 0.005
Log(number of countries involved)	0.0239 0.177	0.0197 0.277	0.0250 0.131	0.0211 0.218
Log(violation years + 2.226759)	-0.0283 0.406	-0.0286 0.406	-0.0223 0.490	-0.0224 0.492
Fraud charges flag	0.2744** 0.005	0.2770** 0.008	0.2523** 0.004	0.2544** 0.008
Number of unique charges	0.0126* 0.068	0.0137* 0.059	0.0121* 0.066	0.0132* 0.057
TI Bribe Payers Index (headquarter country)	-0.1182* 0.100	-0.0771 0.360	-0.1006* 0.078	-0.0622 0.354
TI Bribe Payers Index (industry sectors core)	0.1873 0.431	0.1697 0.480	0.1759 0.403	0.1607 0.450
TI Corruptions Perception Index (mean of where bribes occurred)	0.0059 0.709	0.0045 0.774	0.0061 0.682	0.0047 0.750
Investigation costs	-6.8945*** 0.000	-6.8771*** 0.000	-6.3269*** 0.000	-6.3355*** 0.000
Regulatory penalties	2.6710*** 0.000	2.5981*** 0.000	2.6428*** 0.000	2.5765*** 0.000
Recidivist flag	-0.1035* 0.010	-0.1081* 0.010	-0.0977* 0.010	-0.1019* 0.011
Industry sector dummies included (heavy manufacturing excluded)				
17. Telecommunications	-0.1716* 0.014	-0.1704* 0.025	-0.1426* 0.013	-0.1411* 0.024
Constant	-0.0082 0.996	-0.1691 0.921	-0.1095 0.937	-0.2684 0.856
Observations	136	136	136	136
R <sup>2</sup>	0.750	0.732	0.762	0.746
p	0.000***	0.000***	0.000***	0.000***

**Notes:** The dependent variable in models (1) and (2) is the indirect cost, measured as the cumulative abnormal stock return over key informational events in the enforcement period minus fines, penalties, investigation, monitoring, and legal costs. In models (3) and (4), the dependent variable is the reputation loss, which is the indirect cost minus the (negative of the) abnormal return on days during the enforcement period in which the firm announced a restatement. Explanatory variables are defined in the text. The top number in each cell presents the estimated coefficient and the bottom number reports the associated two-tailed p-value. \*\*\*, \*\*, \* indicate significance at the 0.001, 0.01, and 0.10 levels, respectively.

The results are reported in Table 15. Indirect costs and the reputation loss both are positively related to market-to-book ratio and the percent of sales influenced. Total indirect costs and reputation loss are negatively related to the natural log of the total amount of bribes paid possibly indicating indirect costs and reputation loss are smaller when the bribery is expected or when bribes are more prevalent. In Model 1 and 3, indirect costs and reputation loss are negatively related to TI's Bribe Payers Index, indicating that firms headquarters that are in countries considered relatively free of corruption experience lower indirect costs and reputation loss.

The most significant influence on indirect costs and reputation loss, however, are the characteristics of the enforcement activity. Total indirect costs and the reputation loss both are larger when the firm faces a contemporaneous charge for financial fraud, when the number of specific violations cited in the enforcement action related to the misconduct is higher and with higher penalties assessed on the firm. Indirect costs and reputation loss are lower when the firm commits to ferreting out the misbehavior by incurring higher investigation costs and when the firm has been involved in a previous bribery enforcement action.

We interpret the results in Table 15 as indicating that, in the cross section of firms, total indirect costs and reputational losses are less sensitive to the characteristics of the firm and of the circumstances surrounding the bribery, and more affected by the nature of the enforcement action. Misconduct that involves financial fraud charges, other violations, and incur higher penalties are associated with relatively large indirect costs and large reputational losses. Firms that incur higher investigation costs as well as firms that have experienced a prior bribery enforcement action incur relatively lower indirect costs and reputation losses. Higher investigation costs may be indicative of firms committed to ferreting out the wrongdoing and improving internal controls, which suggests a reduced likelihood of future FCPA violations due to improved governance.

## 6. CONCLUSION

As the enforcement of the FCPA has increased over the past decade, many have worried that this new enforcement posture has imposed undue costs on U.S. companies that operate abroad. The results in this Report suggest that shareholders' concerns with bribery investigations are more about the possibility that their managers defrauded them than with the activity of bribery per se. Analysis of cumulative abnormal returns for all publicly held companies targeted by an FCPA enforcement action reveals that less than half of shareholder losses are attributable to direct costs – fines, penalties, legal expenses, and monitoring. As a result, average indirect costs – restatement effect and reputation loss – equal 4.6 percent of the firm's pre-investigation equity value. These averages, however, mask substantially larger losses for FCPA violations that are comingled with financial fraud charges. Although small sample sizes suggest some caution in interpreting results too strongly, reputational and restatement effects for FCPA actions involving only bribery are not statistically distinguishable from zero. Alternatively, the reputational costs for FCPA actions that are associated with financial fraud are 46 percent, on average. Further analysis of indirect costs bolsters the inference that financial fraud charges are much more costly to a firm than are bribery charges.

To the extent that authorities are most concerned about financial fraud, the large reputational costs associated with such charges appear to provide substantial deterrence. When the charges are about bribery without any comingled charges of financial fraud, however, direct penalties – including penalties meted out by the DOJ and SEC – serve as the main deterrence.

GEORGE MASON UNIVERSITY SCHOOL OF LAW

**LAW &  
ECONOMICS  
CENTER**