

CHAPTER 18

DOES REPUTATION
WORK TO DISCIPLINE
CORPORATE
MISCONDUCT?

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In theory, reputational losses can penalize and deter corporate misconduct. But do they? This chapter surveys and summarizes empirical research on the importance of reputational penalties for corporate misconduct. For some types of misconduct, including financial misrepresentation and consumer fraud, reputational losses are large—indeed, much larger than such direct costs as regulatory fines and private lawsuits. These losses manifest as costly disruptions in the firm’s management, decreases in revenues, and increases in the cost of capital.

For other types of misconduct, such as environmental violations, reputational losses are negligible. These results indicate that market-based reputational losses accrue when a firm’s opportunistic behavior causes its counterparties to change the terms of contract, causing the firm to lose sales and face higher input costs. Reputational losses do not accrue when the harmed parties do not have ongoing business relationships with the firm.

INTRODUCTION

FEW matters of economic policy are as contentious as the extent and consequences of business misconduct. “They lie, they cheat, they steal, and they’ve been getting away with it too long,” claims *Fortune* magazine about financial fraud. *The Times* of London agrees: “The threat of fines... has proved laughably inadequate in producing better behaviour.” Such views are at the root of recent efforts to increase government oversight of financial reporting and corporate governance, including the US Sarbanes-Oxley Act of 2002 and the US Dodd-Frank Act of 2010.

A counterargument is that even the taint of misconduct is extremely costly for firms. PricewaterhouseCooper contends that, in addition to exposing “companies, their boards of directors, and senior management to criminal and civil liability . . . [Fraud] can significantly damage retail & consumer companies’ most valuable assets—their reputation.”¹ Some researchers argue that concerns about poor reputation can encourage firms to limit the environmental impact of their activities (e.g., Kennedy, Chok, and Liu, Chapter 4, this volume).

Both arguments are at least partially correct. As Oliver Williamson (1984: 198) notes, firms sometimes “lie, cheat, steal, mislead, disguise, obfuscate, feign, distort, and confuse” to increase profits. But as Klein & Leffler (1981) and Shapiro (1983) show theoretically, firms with reputations for bad behavior can lose customers and face higher costs. In theory, the threat of lost reputation can discipline managers and provide incentives for legal and honest dealing. But does such theory work in practice?

This chapter examines the empirical research on corporate reputation. As with many contentious issues, a good starting point is with the terms of dialogue.² The second section proposes a definition of “business reputation” that facilitates both a theoretical basis for understanding the role that reputation plays and a way to measure its importance. Direct measures of a company’s reputation remain empirically challenging, so the research literature has approached this issue indirectly, by measuring the *lost* reputation when firms lie, cheat, and steal. The third and fourth sections examine lying and cheating on corporations’ financial statements, while the fifth section examines the value of lost reputation in other types of misconduct, including consumer fraud, environmental violations, and product recalls.

On the surface the evidence appears mixed, with reputational losses being important for some types of misconduct (e.g., financial misrepresentation, consumer fraud) but negligible for other types (e.g., environmental violations). In the sixth and seventh sections I argue that the results do, in fact, follow a pattern. The key to understanding such apparently mixed results is to note that reputational losses occur when a firm’s counterparties—that is, its customers, suppliers, employees, and investors—change the terms by which they are willing to do business with the firm. Counterparties make such changes when they believe that the chance of being harmed by a firm’s opportunistic behavior increases. Customers who discovered that BeechNut cheated consumers of its baby food products, for example, decreased their demand for BeechNut’s products (see Jennings, 2006: 551). And investors who discover that a firm’s financial statements are in error decrease their demands for that firm’s debt and equity, raising the firm’s cost of capital (see Graham, Li, & Qiu, 2008). Notice that customers and investors need not consciously seek to discipline a firm for its misconduct. Rather, by guarding their own interests against the possibility of being cheated, they offer a firm less attractive terms of trade.

¹ See <http://www.pwc.com/us/en/retail-consumer/publications/protecting-retail-consumer-fraud.jhtml> (accessed 13 December 2011).

² The meaning of corporate reputation is a topic of much discussion, e.g., see Barnett, Jermier, & Lafferty (2006) and Foreman, Whetten, and Mackey (Chapter 9, this volume).

This helps to explain why reputational losses are not uniformly large and important across all types of misconduct. Environmental violations, for example, harm parties other than the ones with whom a firm does business. Downstream fishermen are damaged if an electroplating company dumps toxic chemicals into a municipal storm sewer. But the fishermen do no business with the firm, and the firm's customers have no direct incentive to lower their demands for the firm's products if the dumping does not affect the quality of those products. As a result, the polluting electroplating company experiences no reputational losses.

In short, the research that I review in this chapter indicates that reputation does indeed matter, but not uniformly across all types of corporate activities. This raises several questions about how and when reputation helps to guarantee honest dealing and discipline opportunistic behavior. The concluding section in this chapter identifies six areas for future research in this area.

WHAT IS REPUTATION?

Merriam-Webster.com defines reputation as “overall quality or character as seen or judged by people in general.” In this sense, businesses as well as people have reputations, some better than others. Much useful discussion about corporations' reputations relies on similar definitions (e.g., see Roberts & Dowling, 2002).

In this chapter I take a different approach. To judge how important reputation is, we need a way to measure it, or at least to measure its loss. This requires a more specific definition of reputation. I define reputation as the present value of the cash flows earned when an individual or firm eschews opportunism and performs as promised on explicit and implicit contracts. Stated differently, reputation is the value of the quasi-rent stream that accrues when counterparties offer favorable terms of contract because they believe the firm will not act opportunistically toward them.

This definition follows theoretical models by Klein & Leffler (1981), Shapiro (1983), and Karpoff & Lott (1993). It is consistent also with the discussion of reputation by Noe (Chapter 6, this volume), and with Rindova's and Martins's (Chapter 2, this volume) definition of reputation as a “strategic intangible asset.” In Klein and Leffler's model, reputation—and reputation alone—encourages good behavior and disciplines bad behavior. The upshot is that people and businesses can invest in reputation, just as they might invest in machinery, R&D, or human capital. Viewed this way, reputation is a valuable asset. It is the present value of the improvement in net cash flow and lower cost of capital that arises when a firm's counterparties trust that the firm will uphold its explicit and implicit contracts, and will not act opportunistically to their detriment.³

³ This definition of reputation is proposed by Karpoff & Lott (1993). Klein & Leffler (1981) do not use the term “reputation.” Nonetheless, the reputation loss that is measured in the empirical research summarized below can be modeled as W_2 in the Klein–Leffler model.

Reputational capital is not transparent on a firm's balance sheet, but circumstantial evidence suggests that it is important. For example, Beatty, Bunsis, & Hand (1998) find that investment banks with high reputation obtain higher fees for their services. Resnick et al. (2006) find that high-reputation sellers on eBay get higher prices than others, even for the same goods. Atanasov, Ivanov, & Litvak (2011) find that venture capital firms that are sued by their business partners subsequently lose financing and business.

Nonetheless, as Dowling and Gardberg (Chapter 3, this volume) discuss, measuring the size of a firm's reputational capital is difficult, and we have little direct evidence on its size for most firms. To get around the measurement problem, researchers have used a different kind of experiment to infer the importance of reputation to firms. This experiment examines the counterexamples—that is, instances in which people or firms *lose* reputation by lying, cheating, or stealing. To the extent that such losses are large, we can infer whether, and where, reputation matters.

One view is that a reputational loss as simply one of several types of bad consequences for business misconduct, on a par with consumer boycotts, lowered credit ratings, or stock price declines. My definition of reputational loss differs from this. If consumers boycott a firm, the loss in sales is one way in which a reputation loss occurs; likewise if a firm's credit ratings are lowered and its cost of capital increases. That is, the size of the reputation loss includes the value of the lost sales and the value impact of a change in a firm's cost of capital. Notice that, viewed this way, a stock price decline is not a sanction imposed by investors for a firm's misconduct. Rather, a stock price decline is a measure of investors' expectations of the total net costs to the firm from the news of its misconduct. Stated differently, a stock price decline is not a reputational loss, but it is a measure of a firm's total losses, which may include a reputational loss.

MEASURING REPUTATION LOSSES—AN EXAMPLE

Figure 18.1 shows the cumulative daily market-adjusted returns on Xerox common stock from 1997 through 2006. The (split-adjusted) share price closed on January 2, 1997 at \$22.38, and closed on December 29, 2006 at \$15.97. Returns were positive from early 1997 through most of 1999, with the share price peaking at \$56.60 on May 3, 1999. But then the wheels fell off and share prices tumbled beginning in late 1999, reaching a low of \$4.05 on October 9, 2002. Overall, Xerox shareholders had a bad decade.

It turns out that in early 1997 Xerox began to inflate its reported earnings by accelerating its recognition of revenue on its equipment lease contracts. Rather than recognizing revenue when lease payments were made, it booked the full stream of expected lease payments when the lease agreement was made. The effect was to increase near-term revenue and earnings. This reporting strategy helped to boost Xerox's share price through much of 1999. Xerox's revenue-accelerating reporting scheme, however, came with a built-in flaw. The only way such a scheme can work and not be discovered is if the company generates sufficiently high real growth to make up for, and to cover up, the eventual

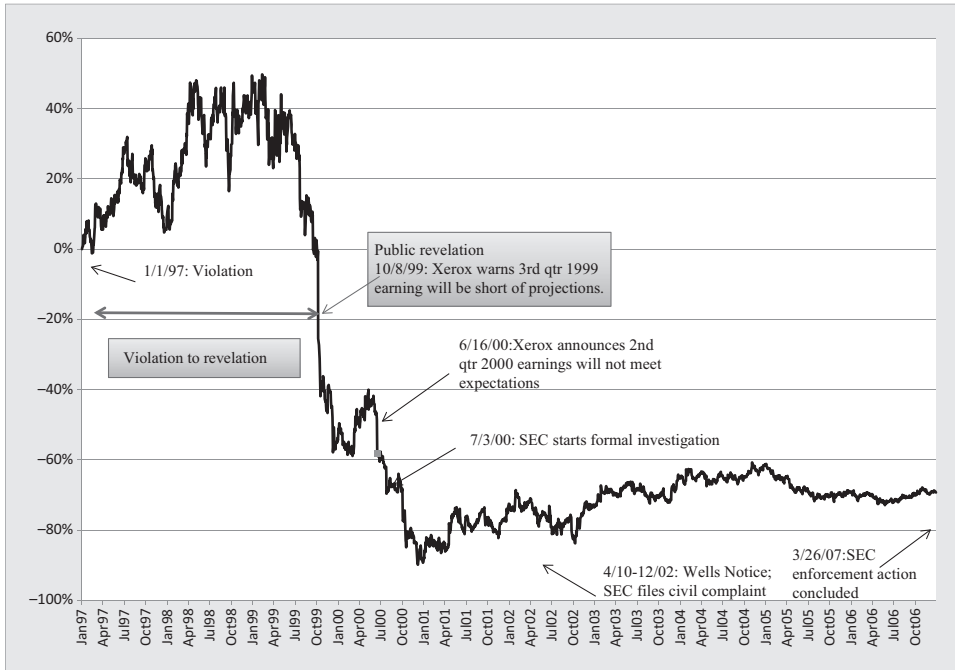


FIGURE 18.1 Xerox's cumulated market-adjusted stock return, 1997–2006.

shortfall in future periods' revenues. Xerox was unable to generate such high sales growth, and eventually it had to recognize that it would not be able to cover up its aggressive reporting practice. On October 8, 1999, the firm announced that its third-quarter earnings would not meet projections. Investors correctly inferred that the announcement was only the tip of a larger problem, and the stock price fell dramatically. In the ensuing months Xerox made additional disclosures of earnings shortfalls. The U.S. Securities and Exchange Commission (SEC) launched an investigation of Xerox's reporting practices in 2000, and eventually the firm was penalized for misrepresenting its financial statements.

As illustrated in Figure 18.1, Xerox's misleading financial reports did work—temporarily—to boost its share price. Using the measurement procedure used by Karpoff, Lee, & Martin (2008b)—and discussed below—Xerox artificially inflated its market capitalization by a total of \$1.039 billion, from \$15.725 billion to \$16.864 billion. We should expect that when the revenue-accelerating financial reporting practice was revealed to the public, Xerox's share price should have dropped to wipe out this artificial share price inflation. This would have brought the share price back to where it would have been if the financial reports had never been in error.

As revealed in Figure 18.1, however, Xerox's share price did not simply go back to wipe out the artificial share price inflation—it fell much further. Again using the Karpoff, Lee, & Martin (2008b) method, the total loss in Xerox's market capitalization when investors

learned about its misconduct, adjusted for market-wide price movements, was \$5.0 billion. This is nearly five times the artificial share price inflation. Why did the share price fall so far?

Figure 18.2 illustrates the nature of Xerox’s losses in a way that helps to answer this question. It is a stylized representation of the overall impact on Xerox’s market capitalization of the misrepresentation and its discovery. During the period that Xerox misrepresented its revenues and earnings, its share values increased. This is illustrated by the upward sloping line. Immediately before Xerox announced that third-quarter 1999 earnings would be less than previously forecast, the firm’s market capitalization was \$16.864 billion. The cumulated loss in market capitalization, measured over the sequence of events by which investors learned of the misconduct, was \$5 billion. This left the company with a market capitalization (adjusted for market-wide movements) of \$11.864 billion.

Of the \$5 billion loss, only \$1.039 billion, or 20.8 percent, is the reversal of the artificial share price inflation. This represents the share value returning to the level at which, hypothetically, it would have been if no misrepresentation had occurred. An additional \$0.523 billion of the loss can be attributed to amounts Xerox paid in fines and to settle a class action lawsuit. The rest of the loss—\$3.44 billion—is due to something else. The most plausible explanation is that most of the \$3.44 billion is due to impaired operations because of the revelation of misconduct—what I call “the reputational loss.”

What are these impaired operations? First, the discovery of financial misconduct can impair the firm’s operations if its managers are indicted, lose their jobs, or divert time and energy to the investigation rather than attending to company business. The investigation also could force the firm to adopt new monitoring and control policies that increase its cost of operations. Such higher costs of operation will lower the firm’s future earnings and result in a lower current value.

Second, the news can change the company’s cost of capital. The fact that the firm’s officers furnished misleading financial information indicates that the company has poor internal controls, managers who behave opportunistically, or both. Such information

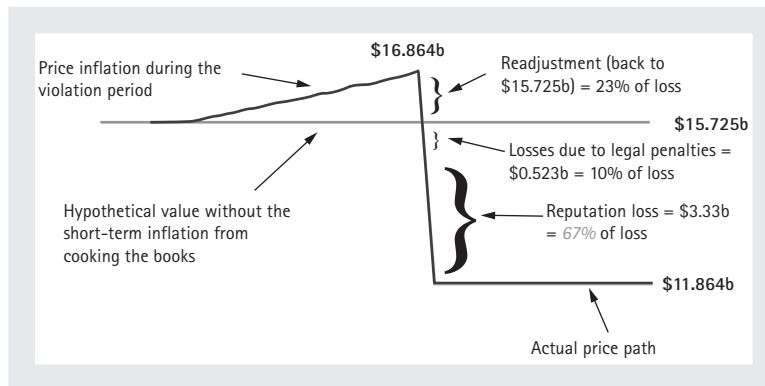


FIGURE 18.2 Xerox’s loss partitioned into components for share deflation, legal penalties, and reputational loss.

can cause the firm's investors and other stakeholders to change the terms with which they are willing to do business with the firm. Graham, Li, & Qiu (2008), for example, find that lenders charge higher interest rates to firms whose financial reports or internal controls are suspect.

And third, news of firm misconduct could even change its cash flow from operations. As we will see, this is particularly relevant for firms that act opportunistically to cheat their customers or employees. They lose customers or face higher contracting costs.

All three of these effects contribute to the firm's reputational loss. The reputational loss is the present value of the higher costs and/or lower revenues when firms are discovered to have cheated their investors, suppliers, employees, or customers. It occurs because of direct impairments to the firm's ongoing operations, and also because counterparties alter the terms with which they are willing to continue to do business with the firm.

MEASURING REPUTATION LOSSES TO FINANCIAL MISCONDUCT—LARGE SAMPLE EVIDENCE

Share Price Impacts

I chose the Xerox example because it illustrates the results from a broader sample of firms. Karpoff, Lee, & Martin (2008b) measure the impact on share values of SEC enforcement actions for financial misrepresentation from 1978 through September 2006. Their sample of 585 enforcement actions represents all SEC actions for violations of requirements that firms keep accurate books and records (15 U.S.C. §§ 78m(b)(2)(A)) and maintain a system of internal accounting controls (15 U.S.C. §§ 78m(b)(2)(B)).

Most SEC enforcement actions follow a conspicuous trigger event that publicizes the potential for misconduct and attracts the SEC's scrutiny. Trigger events include self-disclosures of malfeasance, restatements, auditor departures, unusual trading, and whistle-blower lawsuits. Karpoff, Lee, & Martin report that the average one-day market-adjusted stock return on such trigger dates is -25.24 percent. Using an updated version of Karpoff, Lee, & Martin's data, Karpoff & Lou (2010) report an average abnormal return of -18.2 percent on the trigger date.

Following a trigger event, the SEC gathers information through an informal inquiry that may develop into a formal investigation of financial misconduct. The announcement of a formal investigation is associated with an average share price decline of 13.7 percent.

The SEC releases its findings and penalties in its Administrative Releases (Notices and Orders) and Litigation Releases. (Some—but not all—of these releases also receive a designation as an Accounting and Auditing Enforcement Release (AAER). Karpoff, Lee, & Martin (2008a) report that 63 percent of the regulatory releases in their sample also

were assigned an AAER number.) If the SEC proceeds and imposes sanctions, the news of its initial regulatory action is associated with a further 9.6 percent decline. Subsequent releases that indicate that the matter is resolved are associated with an average decline of 4.2 percent.

This sequence of events typically takes several years to play out. Karpoff & Lou (2010) report that the median length of the violation period is 24 months, and the median length from the beginning of the violation until its initial public revelation is 26 months. From the initial public revelation until the end of the enforcement action takes an additional 41 months.

These findings are similar to those from many other studies that examine the share price reactions to disclosure of financial misconduct. The results of a number of such studies are summarized in the summary table at the end of the chapter. Using data from AAERs, Feroz, Park, & Pastena (1991) measure a two-day abnormal stock return of -12.9 percent. Dechow, Sloan, & Sweeney (1996) measure a one-day abnormal return of -8.8 percent, and Beneish (1999) reports a three-day abnormal return of -20.8 percent. Palmrose, Richardson, & Scholz (2004) examine share price reactions to news that a firm has to restate earnings, and report a mean two-day abnormal return of -9.2 percent. Using the Government Accountability Office's (GAO) (2002, 2003) database on announcements of earnings restatements, Desai, Hogan, & Wilkins (2006) report a mean three-day abnormal return of -11.07 percent, and Arthaud-Day et al. (2006) report a mean of -11.0 percent. Hennes, Leone, & Miller (2008) calculate that, among these restatements that result from material irregularities, the mean three-day abnormal return is -13.64 percent.

Announcements that a firm is the defendant in a lawsuit alleging financial fraud also are associated with large stock price declines. Francis, Philbrick, & Schipper (1994) measure a one-day abnormal stock return of -17.16 percent upon public disclosure of misconduct that prompts a lawsuit, and Gande & Lewis (2009) report a three-day abnormal stock return of -4.66 percent upon the news that a lawsuit against a firm had been filed.

Measures of Reputational Loss

As in the Xerox case, these stock price declines represent a combination of legal penalties, a reversal of the artificial share price inflation, and lost reputation. In isolated cases, the legal penalties can be quite large. For example, the SEC imposed a \$250 million fine on Qwest Communications International, and \$100 million fines each on Bristol-Myers Squibb Co. and the Royal Dutch/Shell Group. WorldCom initially was fined \$2.25 billion for misreporting its earnings from January 1999 through March 2002 by a cumulative amount of \$11 billion. This fine, however, was reduced in bankruptcy and district court negotiations to \$750 million.

Despite such high-profile cases, Karpoff, Lee, & Martin (2008b) report that only 47, or 8 percent, of the 585 firms in their sample were assessed monetary penalties by regulatory agencies. The mean fine was \$106.98 million, but excluding the WorldCom case, the

mean fine was only \$59.8 million. Monetary penalties from shareholder class action lawsuits are more common; 39 percent of the firms in their sample paid class action settlements. The mean settlement in these cases was \$37.7 million.

Although legal penalties sometimes are large, on average they are much smaller than firms' share value declines when their misconduct is revealed. In Karpoff, Lee, & Martin's (2008b) data, the mean legal penalty equals only 3.1 percent of the total loss in the market values of the targeted companies. Class action settlements account for an additional 5.4 percent of the loss. Together, these legal penalties equal only 8.8 percent of the total dollar loss associated with the enforcement actions.

To measure the reversal of the artificial share price inflation, Karpoff, Lee, & Martin report on two methods, one based on asset write-downs and the other based on earnings restatements. To illustrate the asset write-down approach, consider the following example:

Suppose the Acme Company is an all-equity firm with a book value of assets of \$100 and a market-to-book ratio of 1.5. The market value of the firm's assets, and its stock, is therefore \$150. But then assume that Acme issues a misleading financial statement that overstates its asset values by \$10. If the firm's market-to-book ratio stays the same, its share values will increase temporarily by $(\$10 \times 1.5)$ to \$165. But when the financial misrepresentation is discovered, Acme's book values will adjust back to \$100. And if there is no other impact, the share value will fall back to \$150. That is, Acme's shares will drop in value from their inflated value of \$165 to their "correct" value of \$150.

For each company in their sample, Karpoff, Lee, & Martin estimate the firm's market-to-book ratio by taking the median ratio of other firms in its industry. The size of the artificial asset inflation is measured as the largest asset write-down in the period following the discovery of the misconduct. Using this method, Karpoff, Lee, & Martin estimate that 24.5 percent of the share price loss for firms in their sample is due to the reversal of the artificial share price inflation.

Estimation of the artificial share price inflation can become quite complicated, and, indeed, is a potentially fruitful area for future research. For example, if the market-to-book ratio is not static but depends on a firm's reported assets (say that investors' views of a firm's long-term growth depend on that firm's reported financials), the Acme example would become a more challenging estimation problem. It also might be useful to estimate the artificial share price inflation using a multiple of overstated earnings rather than overstated assets. Karpoff, Lee, & Martin (2008b) report on earnings-based estimates for a subset of their sample with available information. They obtain results that are similar to those based on the multiples-of-assets approach, but their earnings-based sample is small.

Using point estimates, Karpoff, Lee, & Martin (2008b) estimate that 8.8 percent of the total losses to firms in their sample were due to legal penalties and 24.5 percent to reversal of the artificial share inflation. The residual—66.6 percent—is an estimate of the amount of the total loss that is due to lost reputation. This breakdown is illustrated in Figure 18.3. This is a crude estimate. However, using median rather than mean values,

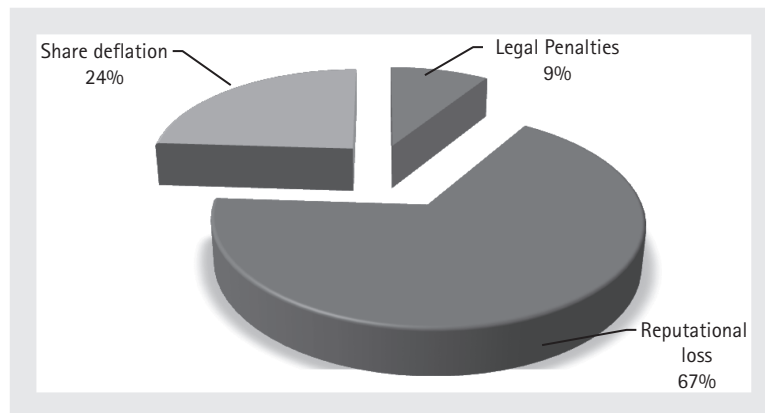


FIGURE 18.3 Sources of loss for financial misrepresentation.
Based on data for 384 cases, as reported in Karpoff, Lee, and Martin (2008b)

limiting the sample to firms that survived the enforcement process, or using alternate measures of the share deflation all yielded similar or larger measures of the reputation loss. Even extreme assumptions that generate large estimates of the share inflation effect leave a large portion of these firms' share price losses unexplained, except for the notion that they lost reputation.

Stated differently, Karpoff, Lee, & Martin's results indicate that firms can increase their share values temporarily by misrepresenting their earnings and assets. When the misrepresentation is detected, however, firm value decreases by more than the original inflation. For every dollar of inflated value during the period that the firm's books are in error, the firm loses that dollar when its misrepresentation is uncovered. In addition, the firm loses an additional \$3.08. Some of this additional loss—36¢—is due to the legal penalties these firms incur. Most—\$2.71—is due to lost reputation.

These results support the argument that financial reporting violations carry large penalties. The largest penalties are not from regulators or private lawsuits. Rather, they are from the firm's investors and other counterparties. It is unlikely that investors and firm counterparties intend, or are even aware, that they impose penalties on the offending firm. Rather, they are simply protecting their own interests by requiring a premium to do business with firms that are less trustworthy than they previously believed.

REPUTATIONAL LOSSES FOR OTHER TYPES OF BUSINESS MISCONDUCT

The previous discussion focused on reputational losses to firms that are revealed to have misrepresented their financial statements. Many researchers have investigated whether reputational losses occur for other types of business misconduct. Here, the results are

mixed, with large measures of reputational loss for some types of misconduct but negligible loss for other types.

Panel B of the summary table gives the results from several of these investigations. Peltzman (1981), for example, finds that firms accused of false advertising by the Federal Trade Commission suffer losses in market capitalization measured over eight days of 2.42 percent. He concludes that only a small portion of these losses can be explained by such direct costs as fines and penalties, implying that investors anticipated large indirect losses to these firms—what I call a reputational loss. Jarrell & Peltzman (1985) examine the impacts of product recalls in the automobile and pharmaceutical industries. Again, they find significant share price losses, of which only about 23 percent can be explained by the direct costs of the product recall. This implies that much, even most, of these firms' total losses are due to lost reputation. Barber & Darrough (1996) also conclude that the reputational losses for automobile recalls are substantial.

Karpoff & Lott (1993), Alexander (1999), and Murphy, Shrieves, & Tibbs (2009) measure the reputational losses to frauds of related parties, including customers. News of such misconduct results in substantially smaller share price declines than for financial misconduct. Karpoff & Lott (1993), for example, report a mean two-day abnormal return for their sample of related-party fraud of -1.22 percent, and Murphy, Shrieves, & Tibbs (2009) report a mean two-day abnormal return of -2.30 percent. Both papers, however, conclude that such direct costs as legal penalties can explain only a small portion of these firms' losses. Averaging over both papers' point estimates, the portion of the overall loss that can be explained by reputational losses is 56 percent.

Another large estimate of reputational loss comes from air safety disasters. Mitchell & Maloney (1989) find that the one-day abnormal stock price reaction to an air crash that involves some oversight or pilot error is -1.68 percent. Much of this loss is attributed to lost future sales, that is, a reputational loss.

To measure the size of a reputational loss, it is important to first account for all direct costs that conceivably could explain the firms' share price losses. van den Broek et al. (2010) do this when they measure the reputational loss to Dutch firms that are subject to antitrust charges, by excluding any losses from having to abandon the conspiracy-related profits that were targeted in the antitrust action. Still, van den Broek et al. (2010) conclude that the reputational loss from antitrust actions averages 46 percent of these firms' total losses.

However, reputational losses are not uniformly large for all types of misconduct. Karpoff & Lott (1993) and Alexander (1999) find that the average stock price drop when firms are revealed to have engaged in misconduct that does not affect their counterparties—examples include check-kiting or failure to report large currency transactions—is statistically insignificant. Using a larger sample, Murphy, Shrieves, & Tibbs (2009) report that the share price reaction to news of misconduct that does not affect a firm's counterparties is negative and significant (-0.80 percent). But they find that all of this loss can be attributed to these firms' legal penalties, implying no reputational loss.

Estimates of reputational loss also are small or negligible for firms that violate environmental regulations. Jones & Rubin (2001) find that, among a sample of public utility

companies, news of an environmental violation is not associated with a decline in share values. They conclude that there must be very little reputational loss for these companies. Karpoff, Lott, & Wehrly (2005) find that the average share price reaction is negative (–1.00 percent) in their broader sample of environmental violations. However, they also find that the legal penalties for the firms in their sample are of similar magnitude to the share value losses. Violations affecting air quality during the 1980s and 1990s, for example, resulted in an average fine of \$31.7 million (in constant 2002 dollars). In addition, the guilty companies were required to incur costs averaging \$123 million to comply with air quality rules or to remediate the damage of their pollution. Firms that were responsible for contaminated sites faced an average penalty of \$11.0 million and a cleanup cost of \$108 million. While firms that are caught contaminating air, water, or land resources face significant costs, these costs are all those imposed by regulators and the courts. These costs fully explain the defendant firms' losses in share values, implying that the reputational loss from violating environmental rules is negligible, on average.

WHY DO REPUTATIONAL LOSSES DIFFER?

Some types of misconduct expose companies to greater reputational losses than others. Lying to investors by misrepresenting financial statements triggers large reputational losses. So does defrauding customers, as with an incident in which BeechNut sold fake juice that was labeled “100 percent pure” apple juice (again, see Jennings, 2006: 531). In such incidents, the perpetrator reveals itself to be untrustworthy. Companies that defraud customers therefore tend to lose sales. Those that cheat employees or other suppliers face higher input costs or lost trade credit. And those that lie to their investors face higher financing costs.

Reputational losses are not uniformly high, however. This is most apparent from the empirical results regarding environmental violations. In theory, firms that violate environmental rules could suffer reputational losses if consumers and suppliers refuse to do business with them. After the 1989 *Exxon Valdez* oil spill, for example, some consumers cut up their Exxon credit cards and vowed to buy gasoline from other vendors. The data, however, show that, on average, the reputational loss from harming the environment is negligible. Jones & Rubin (2001) and Karpoff, Lott, & Wehrly (2005) argue that this is because firms that violate environmental rules do not impose costs on parties with whom they do business. Using the example stated previously, downstream fishermen are damaged if an electroplating company dumps toxic chemicals into a municipal storm sewer. But the fishermen do no business with the firm, and the firm's customers have no direct incentive to lower their demands for the firm's products if the dumping does not affect the quality of those products. As a result, the polluting electroplating company experiences no reputational costs.

A similar argument holds for violations that do not directly affect the parties with whom the firm does business. Although actions such as check-kiting are against the law,

it is not evident that any of the parties with whom the firm does business are harmed by the activity. As a result, when firms are caught violating these types of rules they may face legal penalties. But since they do not directly harm their customers, investors, or suppliers, they do not suffer a reputational loss. That is, investors do not expect them to lose sales or face higher operating costs, and their share values are not substantially affected.

HOW REPUTATIONAL LOSSES SHOW UP IN FIRMS' OPERATIONS

The evidence implies that firms engaging in many types of misconduct incur large reputational losses. This evidence is based, however, on observations that share prices decline when investors find out about the misconduct. But are investors correct? That is, do reputational losses actually show up in firms' subsequent performance? Do these firms subsequently lose business, incur higher costs, or experience a higher cost of capital?

The research on this question is still developing. But, as summarized in Panel C of the summary table, a number of findings are consistent with the event study results. For example, Karpoff & Lott (1993) find that firms charged with defrauding customers and other stakeholders do in fact have lower operating earnings over the following five years. Alexander (1999) reports that 57 percent of such firms experience termination or suspension of specific contracts. Furthermore, such business losses occur only following frauds of parties with whom the firm does business. Offenses against other parties with whom the firm does not do business do not lead to a high rate of lost sales. Similarly, Murphy, Shrieves, & Tibbs (2009) find that allegations of illegal acts are accompanied by a significant decrease in firms' earnings and an increase in uncertainty over future earnings.

There is fairly strong evidence that financial misconduct results in a higher cost of capital for a firm. Hribar & Jenkins (2004), Kravet & Shevlin (2010), and others show that the cost of equity capital increases for firms that restate earnings. And Graham, Li, and Qiu (2008) show that bank lender rates increase for restating firms.

Several papers document direct evidence of reputational losses. Beatty, Bunsis, & Hand (1998) find direct evidence of operating losses for investment bankers that are investigated by the SEC for problems in bringing initial public offering IPO firms to the public market. These firms experience sharp decreases in their shares of the IPO underwriting market after they are targeted by an SEC investigation. The share prices of these firms' client companies also decline, indicating that the decrease in an investment banker's reputation affects its clients as well. Atanasov, Ivanov, & Litvak (2011) find reputational effects are large in the venture capital business. Specifically, venture capital firms that are sued by their business partners subsequently lose financing and business.

In online auctions, buyers deal with sellers they do not know and cannot even see. So we would expect reputational effects to be very important and that sellers with high reputations would charge higher prices than others. Price premiums are the amounts that (some) buyers willingly pay for an increased guarantee that they will not be ripped off. In equilibrium, the chance to earn a price premium is sufficient to encourage high-reputational sellers to deliver on their promise not to cheat buyers.

Consistent with such expectations, evidence indicates that high-reputation sellers on eBay do in fact sell at higher prices than others, even for the same items. For example, Resnick et al. (2002) find that the prices of vintage postcards on eBay average 7.6 percent higher for sellers with a high reputation than for other sellers—even for the exact same postcards. Dewally & Ederington (2002) find similar results for comic books sold on eBay. The impact of a seller's reputation on price is particularly great when the quality of the comic book has not been certified by a third party.

Finally, several findings indicate that managers who involve their companies in financial misconduct end up losing their jobs. Jayaraman, Mulford, & Wedge (2004) find that managers of firms that are subjects of SEC Accounting and Auditing Enforcement Releases tend to be displaced at an unusually high rate. Desai, Hogan, & Wilkins (2006) and Agrawal & Cooper (2007) find that managers of firms that have to restate their earnings share similar fates. Karpoff, Lee, & Martin (2008a) report that 92 percent of managers whom the SEC identifies as involved in financial misrepresentation lose their jobs; 81 percent lose their jobs even before the SEC imposes any sanctions.

CONCLUSIONS: QUESTIONS FOR FURTHER RESEARCH

It is a truism that a firm's reputation matters. But how much does it matter? And why? To ascertain just how much reputation matters, researchers have examined instances in which firms can lose their reputations—that is, when firms are caught engaging in illegal or opportunistic activities. Firms lose market value upon the news of such misconduct. Frequently, the size of the loss far exceeds direct costs such as fines, penalties, and lawsuit settlements. The portion of a firm's loss that cannot be explained by such direct costs is a measure of that firm's reputational loss.

Using this approach, the evidence indicates that firms experience significant reputational losses when their misconduct imposes costs on their counterparties. Firms that misrepresent their financial statements face a higher cost of capital; and firms that cheat customers lose sales. For some types of misconduct, however, there appear to be small or negligible reputational losses. A notable example involves environmental violations. Firms lose value when they violate, say, Clean Air Act rules about emissions, but the size of the value loss is roughly the same as the firm's legal penalties and remediation costs. This implies that reputation plays a small role in disci-

plining environmental violations, and that regulations and legal penalties play a more important role.

So, does reputation work to discipline corporate misconduct? The answer is yes, but reputation is not a panacea or magical thing. It does not work to discipline all types of misconduct. Rather, firms lose reputation when their counterparties decrease their willingness to do business with them. And this happens when a firm acts in ways that increase its counterparties' concern that they will be harmed when they do business with the firm—that is, when a firm acts opportunistically in ways that hurt its customers, suppliers, employees, and investors.

The earliest papers cited in this chapter are over 20 years old. Nonetheless, the empirical research on reputational losses has only just begun to provide a well-rounded picture of reputation's role in facilitating the development of markets and economic growth. I conclude by offering a list of six questions for future research. Work on these questions can begin to fill in the gap between our theoretical understanding of reputation and the extent to which it works to encourage integrity and honest dealing in different markets.

How Important are Reputational Penalties Around the World?

Armour et al. (2011) find that reputational losses are important for financial misconduct in the UK, but most empirical research in this area has focused on US firms. We do not know if reputational losses help to discipline related-party misconduct in other markets around the world. This question is compelling for both theoretical and empirical reasons. Theoretically, the equilibrium reliance on reputation in any given market will depend on legal, institutional, and cultural factors (see Brammer & Jackson, Chapter 15, this volume; Newbury, Chapter 12, this volume; and McKenna & Olegario, Chapter 13, this volume). Where legal contracting protections are weak, for example, we might expect that buyers and sellers rely more on the informal protection provided by reputational guarantees. Indeed, Karpoff & Lott (1993) argue that, in the absence of any legal protections, sellers will provide different levels of reputational guarantee, just like they cater to other types of buyer clienteles. In markets that rely heavily on reputation to guarantee contractual performance, we should expect to see relatively large reputational penalties for misconduct.

How do Reputational Penalties Interact with Public and Private (lawsuit) Enforcement of Securities and other Laws?

Examining the securities laws in 49 countries, La Porta, Lopez de Silanes, & Shleifer (2006) conclude that governmental regulations that seek to limit financial misconduct do little to assist the development of financial markets. They argue that private enforcement, for example the threat of lawsuits, is much more important for financial market

development than public enforcement. Howell & Roe (2009) use different measures of public enforcement that are based on the budgets or number of employees of the financial regulatory authority, and conclude the opposite. Both studies, however, ignore the role of reputation in disciplining financial misconduct and promoting financial market development. The empirical research indicates that reputational losses for financial misconduct exceed the explicit penalties imposed by either public or private enforcement agents. And the work summarized by McKenna and Olegario (Chapter 13, this volume) and Gilad and Yogev (Chapter 16, this volume) shows how regulators' actions affect the reputations of the firms they regulate. These results imply that a properly specified test of the effects of public and private enforcement must include reputational penalties as well.

How and When do Firms Rebuild Damaged Reputation?

The Klein-Leffler (1981) model implies that investment in reputational capital is similar to other capital investments. We should expect firms optimally to invest in reputation until the marginal investment yields zero net present value. This principle applies also to investment in reputation after the firm suffers a reputational loss. Some firms decide to reinvest in damaged reputational capital, as in the case of Johnson and Johnson after the Tylenol product tampering case (e.g., see Mitchell, 1989). Other firms, such as Arthur Andersen after the Enron financial reporting scandal, abandon their brand name, reflecting a decision not to invest in damaged reputation. Other than such anecdotes, we do not know whether firms tend to reinvest in reputation following a reputational loss, under what conditions they do so, what form the reinvestment takes, and whether the reinvestment is successful. Along these lines, Rhee and Kim (Chapter 22, this volume) and Elsbach (Chapter 23, this volume) identify some firm characteristics that affect a firm's decision to reinvest in damaged reputations.

How good are our Event-study Measures of Reputational Penalties?

Most measures of reputational loss are based on the residual approach first used by Peltzman (1981), Jarrell & Peltzman (1985), and Karpoff & Lott (1993). This measure reflects investors' expectations of the long-term cash flow consequences when firms' misconduct is revealed. To date, however, there is only limited evidence on whether such measures correspond to actual decreases in revenues or increases in costs (see, however, Murphy, Shrieves, & Tibbs, 2009). There also is limited research on the quality of the residual measures themselves. Karpoff & Lott (1993) point out that the measure of reputation loss can reflect lost cheating profits, which should not be considered a reputational loss. The measure also could reflect expectations of higher future direct costs if, for example, the firm is likely to be a repeat offender. In cases of financial misrepresentation, the measure of reputational loss is affected by the estimate of the reversal of artificial share price inflation. Karpoff, Lee, & Martin (2008b) argue that

their measure of reputational loss is not much affected by alternate estimates of the artificial price inflation. But, in general, such estimates could have a large impact on the measure of reputational loss. Further research could clarify whether the reputational loss measures reported to date withstand further scrutiny.

How does Corporate Governance Affect the Likelihood and Cost of Opportunistic Behavior by Corporations?

Given the high cost of being caught—at least for many types of misconduct—one might infer that good governance would decrease the likelihood that managers would engage in misconduct. This argument, however, is incomplete. It ignores the possibility that, *ex ante*, some instances of misconduct could be expected to increase value. In such cases we should expect that well-governed firms would have incentives for managers to engage in misconduct. (If this possibility sounds unlikely, consider tax avoidance strategies. If the penalties for overly aggressive tax reporting are sufficiently low, it can behoove shareholders to incentivize managers to be aggressive in their tax reporting.)

Why do they do it?

The results surveyed here indicate that there are large consequences for firms and managers that are caught engaging in misconduct. Then why do they do it? Researchers have examined several theories, including compensation incentives, poor governance, and inappropriate expectations.⁴ Most of these explanations receive empirical support. Most, however, are considered in isolation. To the extent that any one explanation (say, governance) is important, any test (say, regarding compensation incentives) that leaves it out suffers from an omitted variables problem. Future research that considers many potential factors at once could help us to understand better the forces that encourage corporate misconduct.

In short, the empirical research on the importance of reputation is still in its infancy. It is widely accepted that a firm's reputation matters. But to guide business and public policy, it is important to have some idea of how and when reputation matters, and even what we mean by the term "reputation." Attempts to investigate these questions should help to round out our understanding of the role of reputation in facilitating the development and use of markets to allocate scarce resources and encourage economic development.

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⁴ See, for example, Burns & Kedia (2006), Harris & Bromiley (2007), Mishina et al. (2010), and Agrawal & Cooper (2010).

Selected Empirical Studies Regarding the Costs of Corporate Misconduct

Type of misconduct or event	Reference	Reputation loss:*	Key findings
Panel A: Event studies of financial reporting violations			
Financial misrepresentation	Karpoff, Lee, & Martin (2008b) Karpoff & Lou (2010)	Yes N.M.	Mean one-day stock return of -18% to -25%, including a large reputational loss.
Accounting and Auditing Enforcement Release (AAER)	Feroz, Park, & Pastena (1991) Dechow, Sloan, & Sweeney (1996) Beneish (1999)	N.M. N.M. N.M.	Mean stock returns during one- to three-day event windows of -9% to -21%.
Earnings restatements	Palmrose, Richardson, & Scholz (2004) Desai, Hogan, & Wilkins (2006) Arthaud-Day et al. (2006) Hennes, Leone, & Miller (2008)	N.M. N.M. N.M. N.M.	Mean stock returns during two- to three-day event windows of -2% to -11%.
Lawsuits	Francis, Philbrick, & Schipper (1994) Gande & Lewis (2009)	N.M. N.M.	Mean stock returns during one- to three-day event windows of -5% to -17%.
Panel B: Event studies of other types of misconduct			
False advertising	Peltzman (1981)	Yes	Mean eight-day stock return of -2.4%.
Product recalls	Jarrell & Peltzman (1985) Barber & Darrrough (1996)	Yes Yes	Mean stock returns during 2- to 11-day event windows of -0.4% to -6.1%.
Misconduct affecting related parties	Karpoff & Lott (1993) Alexander (1999) Murphy, Shrieves, & Tibbs (2009)	Yes Yes Yes	Mean two-day stock returns of -1.2% to -2.3%.
Air safety disasters	Mitchell & Maloney (1989)	Yes	Mean one-day stock return of -1.7% when some blame is assigned to pilot error.
Antitrust charges	van den Broek et al. (2010)	Yes	Mean 3-day stock return of -2.3%.
Misconduct affecting unrelated parties	Karpoff & Lott (1993) Alexander (1999) Murphy, Shrieves, & Tibbs (2009)	No No No	Mean two-day stock returns of -0.9% to +0.4%. Two of the three estimates are statistically insignificant.

Environmental violations	Jones & Rubin (2001) Karpoff, Lott, & Wehrly (2005)	No No	Jones-Rubin report statistically insignificant stock returns; Karpoff et al. report a mean two-day return of -1.0%, but attribute this loss to direct penalties such as fines and remediation costs.
Panel C: Other evidence of reputation losses			
Misconduct affecting related parties	Karpoff & Lott (1993) Alexander (1999) Murphy, Shrieves, & Tibbs (2009)		Firms defrauding related parties subsequently have lower earnings, increased uncertainty over future earnings, and fewer contracts.
Earnings restatements	Hribar & Jenkins (2004) Kravet & Shevlin (2010) Graham, Li, & Qiu (2008)		The firm's cost of capital increases after earnings restatements.
Defense procurement fraud	Karpoff, Lee, & Vondryk (1999)		Unranked defense contractors charged with procurement fraud lose business.
Investment banks targeted by SEC actions	Beatty, Bunsis, & Hand (1998)		Investment banks investigated by the SEC lose market share.
Venture capitalist sued by business partners	Atanasov et al. (2011)		Venture capital firms that are sued by business partners lose financing and business.
eBay seller reputations	Resnick et al. (2006) Dewally & Ederington (2006)		eBay sellers with higher reputations get paid higher prices.
Financial misconduct	Jayaraman, Mulford, & Wedge (2004) Desai, Hogan, & Wilkins (2006) Agrawal & Cooper (2009) Karpoff, Lee, & Martin (2008a)		Significant managerial turnover surrounding the revelation of misconduct.
*N.M. indicates that a reputation loss was not measured.			

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