

THE COST OF SECURITIES FRAUD

URSKA VELIKONJA*

ABSTRACT

Under the dominant account, fraudulent financial reporting by public firms harms the firms' shareholders and, more generally, capital markets. This Article contends that the account is incomplete. In addition to undermining investor confidence, misreporting distorts economic decision making by all firms, both those committing fraud and those not. False information impairs risk assessment by those who provide human or financial capital to fraudulent firms, the firms' suppliers and customers, and thus misdirects capital and labor to subpar projects. Efforts to hide fraud and avoid detection further distort fraudulent firms' business decisions, as well as decisions by their rivals, who mimic or respond to what appears to be a profitable business strategy.

If fraud is caught, managers externalize part of the cost of litigation and enforcement to employees, creditors, suppliers, and the government as the insurer of last resort. Mounting empirical evidence suggests that harm to nonshareholders dwarfs that suffered by

* Assistant Professor of Law, University of Maryland Francis King Carey School of Law. J.D. Harvard University; LL.M. Harvard University; LL.B. University of Ljubljana. The Article received the Junior Faculty Scholarship Prize from the Center for Law, Economics, and Finance (C-LEAF) at George Washington University. The Article was selected in a competitive call for papers for presentation at the 2012 Midwest Law and Economics Annual Meeting, Canadian Law and Economics Annual Meeting, and the C-LEAF Junior Business and Financial Law Workshop at George Washington University. I would like to thank Jennifer Arlen, Peter Conti-Brown, Cynthia Glassman, Michelle Harner, Joan MacLeod Heminway, Christine Hurt, Don Langevoort, Ira Lindsay, Robert Rhee, Ganesh Sitaraman, Max Stearns, Joseph Yockey, and participants of the 2012 Law & Society Annual Meeting, 2012 Southeastern Law Schools Annual Meeting, 2012 ASU Legal Scholars Conference, faculty workshops at Emory University School of Law, Loyola Law School, and Villanova University School of Law, and the Junior Faculty Workshop at the University of Maryland Francis King Carey School of Law for their thoughtful comments. Any misleading, incorrect, or incomplete disclosures remain the responsibility of the author, to the extent they are material.

defrauded shareholders. Moreover, unlike investors, who can limit their exposure to securities fraud by diversifying their holdings and demanding a fraud discount, other market participants cannot easily self-insure. The Article supplies both theoretical and empirical support for the assertion that defrauded investors are not the only victims of accounting fraud. In conclusion, the Article outlines and assesses some alternative fraud deterrence and compensation mechanisms.

TABLE OF CONTENTS

INTRODUCTION	1891
I. THE REGULATION OF SECURITIES FRAUD	1897
<i>A. A Summary of Regulation</i>	1897
<i>B. Existing Thought on the Harm from Securities Fraud</i>	1900
II. OVERVIEW OF FINANCIAL MISREPRESENTATIONS	1907
<i>A. The Anatomy of a Misrepresentation</i>	1908
<i>B. If and After the Truth Is Revealed</i>	1912
III. FINANCIAL MISREPRESENTATIONS AND INTRAFIRM COST	1915
<i>A. Intrafirm Cost: Theory</i>	1916
1. <i>Creditors</i>	1916
2. <i>Employees</i>	1918
3. <i>Do Nonshareholders Care About Financial Disclosures?</i>	1923
<i>B. Intrafirm Cost: Evidence</i>	1926
1. <i>The Cost of Fraud to Employees</i>	1928
IV. FINANCIAL MISREPRESENTATIONS AND EXTERNAL COST	1929
<i>A. The Cost of Fraud to Rivals: Theory</i>	1929
1. <i>Economic Learning</i>	1929
2. <i>Distorted Competition</i>	1930
3. <i>Contagion</i>	1932
<i>B. The Cost of Fraud to Rivals: Evidence</i>	1933
1. <i>Equity Market Externalities</i>	1933
2. <i>Debt Market Externalities</i>	1935
<i>C. The Cost of Fraud to the Government and Communities</i>	1937
V. DETERMINANTS OF THE COST'S MAGNITUDE	1938
<i>A. The Likelihood of Fraud</i>	1938
<i>B. The Size of the Distortion from Fraud</i>	1941
1. <i>Fraud Characteristics</i>	1941
2. <i>Fraudulent Firm Characteristics</i>	1942
3. <i>Market Characteristics</i>	1942
4. <i>Summary</i>	1944

VI. IMPLICATIONS AND SOLUTIONS	1945
<i>A. Implications</i>	1945
<i>B. Solutions</i>	1947
1. <i>Making Disclosure Less Public</i>	1947
2. <i>Improving Disclosure by</i> <i>Improving Compliance</i>	1948
3. <i>Victim Compensation</i>	1951
<i>a. Victim Lawsuits</i>	1952
<i>b. Victim Compensation Fund</i>	1954
<i>c. Eliminating Securities Fraud Class Actions</i>	1956
CONCLUSION	1957

INTRODUCTION

Just over ten years ago, on June 25, 2002, WorldCom announced that its financial disclosures were fiction.¹ Accounting fraud at WorldCom ultimately destroyed tens of billions of dollars in investors' equity and pushed the firm into bankruptcy.² When it emerged two years later as MCI, Inc., it had shed 33,000 employees,³ more than a third of its workforce.⁴ Its general unsecured creditors ultimately received only thirty-six cents on the dollar.⁵ While WorldCom was fabricating its financials, its rivals, Sprint and AT&T, made business decisions believing that WorldCom's success was real. Under pressure from its own shareholders, AT&T cut \$7.5 billion in costs and laid off 20,000 employees.⁶ Still unable to compete with WorldCom's imaginary figures, AT&T split itself into three units, which were sold individually—a decision then, and now, widely viewed as value destroying.⁷ In fact, during the fraud, WorldCom's true costs were higher than AT&T's.⁸ Telecommunications equipment manufacturers, including Lucent Technologies and Nortel Networks, initially benefitted from

1. DENNIS R. BERESFORD ET AL., REPORT OF INVESTIGATION BY THE SPECIAL INVESTIGATIVE COMMITTEE OF THE BOARD OF DIRECTORS OF WORLDCom, INC. 2 (2003), available at <http://news.findlaw.com/wsj/docs/worldcom/bdspecomm60903rpt.pdf>.

2. *Id.* Before fraud was unmasked, WorldCom was one of the largest telecommunications companies, with \$160 billion in assets. Ken Belson, *WorldCom's Audacious Failure and Its Toll on an Industry*, N.Y. TIMES, Jan. 18, 2005, at C1.

3. Edward J. Romar & Mactin Calkins, *WorldCom Case Study Update 2006*, MARKKULA CENTER FOR APPLIED ETHICS, <http://www.scu.edu/ethics/dialogue/candc/cases/worldcom-update.html> (last visited Mar. 26, 2013).

4. See Steve Alexander, *Former Holders of MCI Stock Miss Out: The Bidding War for MCI Will Enrich the Firm's Shareholders—the Current Ones*, STAR TRIB. (Minneapolis-St. Paul), May 1, 2005, at D1.

5. See Official Comm. of Unsecured Creditors of WorldCom, Inc. v. SEC, 467 F.3d 73, 84-85 (2d Cir. 2006) (limiting the distribution of the SEC Fair Fund proceeds to those investors who had recovered less than thirty-six cents on the dollar).

6. Rebecca Blumenstein & Peter Grant, *On the Hook: Former Chief Tries to Redeem Calls He Made at AT&T*, WALL ST. J., May 26, 2004, at A1.

7. *Id.*

8. *Id.*; see also Gil Sadka, *The Economic Consequences of Accounting Fraud in Product Markets: Theory and a Case from the U.S. Telecommunications Industry (WorldCom)*, 8 AM. L. & ECON. REV. 439, 459 (2006) (showing that AT&T and Sprint performed much better than WorldCom between 1999 and 2002, the period of fraud).

WorldCom's apparent success but suffered when the industry re-trenched after the fraud was revealed. Both suppliers fired workers and saw their equity shrink.⁹ In the aftermath of the WorldCom fraud, the telecommunications industry as a whole lost a quarter of its jobs: 300,000.¹⁰ WorldCom's share price, the usual yardstick for measuring harm from securities fraud, captured none of these losses.

WorldCom might be an outlier, but it is hardly unique.¹¹ By misreporting their firm's financial results and prospects, managers credibly communicate to markets¹² that the firm is more profitable and, importantly, less risky than it in fact is. Managers sell the lie by increasing hiring and investment, and cutting prices. Relying on false information, lenders underprice credit, employees make career and retirement decisions based on a false picture of their firm's prosperity, and rivals make business decisions on a distorted playing field.¹³ Honest firms face the obverse side of fraud and cannot fund and employ workers for valuable projects, producing additional deadweight losses borne by all workers, primary-market investors, and beyond.

If fraud is caught, fraudulent firms spend substantial resources on investigation, litigation, damages, and fines. Many file for bankruptcy that could have been avoided in the absence of fraud, or make costly adjustments that they often shift to employees, creditors, suppliers, customers, and the government as the insurer of last resort.¹⁴ Rivals face doubts about their own financial reporting, which increases their cost of capital and further depresses hiring in

9. Romar & Calkins, *supra* note 3.

10. See Belson, *supra* note 2, at C1, C4.

11. *But see* Donald C. Langevoort & Robert B. Thompson, "Publicness" in *Contemporary Securities Regulation After the JOBS Act*, 101 GEO. L.J. 337, 374-75 (2013) (suggesting that WorldCom and Enron were different because of their size).

12. The Article uses the term "markets" broadly to include capital and labor markets, product markets, as well as intermediate markets. An appropriate adjective is included whenever the term is used narrowly—for example, *securities* markets.

13. See Cynthia A. Glassman, Comm'r, U.S. Sec. & Exch. Comm'n, *Financial Reform: Relevance and Reality in Financial Reporting* (Sept. 16, 2003), available at <http://www.sec.gov/news/speech/spch091603cag.htm>. One might also add to the list: suppliers, vendors, customers, communities, and the government as the insurer of last resort. See John C. Coffee, Jr., *Shareholders Versus Managers: The Strain in the Corporate Web*, 85 MICH. L. REV. 1, 72 (1986).

14. See Coffee, *supra* note 13, at 67-72.

the industry. The ripple effects are felt throughout the economy and, once aggregated, exceed the harms to defrauded shareholders by a substantial margin.¹⁵

Not only are investors not the sole victims of securities fraud, but this Article contends that they are also in a better position than other market participants to reduce their exposure to fraud.¹⁶ They can eliminate firm-specific risk through diversification. Diversification cannot eliminate undiversifiable or market risk of fraud, but investors demand a fraud discount when purchasing securities as ex ante compensation. Although investors as a group benefit if the prevalence of fraud decreases, they are indifferent to accounting fraud if its impact remains stable. Those supplying labor, on the other hand, cannot diversify their human capital at all and are exposed to the risk that securities fraud by their employer will eliminate their jobs and impair their earning potential.¹⁷

Surprisingly, the recognition that investors do not bear the full cost of securities fraud is largely missing from our securities laws—from statutes to rule making,¹⁸ enforcement decisions to judicial opinions,¹⁹ and policy debates²⁰ to academic analysis.²¹ Corporate

15. No model built to date can provide a solid estimate of the aggregate cost of fraud. See Abigail Bugbee Brown, *Private Firms Working in the Public Interest: Is the Financial Statement Audit System Broken?* 19-29, 36 (Oct. 2006) (unpublished Ph.D. dissertation, Pardee RAND Graduate School) (on file with author) (concluding that although it is very “difficult to properly measure the costs of fraudulent financial statements,” “fraud *is* costly to society, perhaps extremely costly”). Two empirical studies measured the effect of accounting fraud on the stock prices of rivals. Both found that aggregate equity market losses by rivals exceed those by fraudulent firms by a factor of four. See Art Durnev & Claudine Mangan, *Corporate Investments: Learning from Restatements*, 47 J. ACCT. RES. 679, 699 (2009); Eitan Goldman et al., *Financial Misrepresentation and Its Impact on Rivals*, FIN. MGMT. (forthcoming) (manuscript at 27 fig.3), available at <http://ssrn.com/abstract=774364>. Other studies cited in Parts III and IV *infra* have found evidence of cost shifting to labor and product markets, and reduced investment after revelation of fraud.

16. This statement assumes the firm did not issue new securities while it was manipulating its financial statements.

17. See discussion *infra* Part III.A.2, B.1.

18. The Dodd-Frank Act, for example, put in place a variety of mechanisms designed to empower shareholders. See, e.g., Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 971(b), 124 Stat. 1376, 1915 (2010) (to be codified at 15 U.S.C. § 78n) [hereinafter Dodd-Frank Act].

19. See, e.g., *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723, 729 (1975).

20. See COMM’N ON THE REGULATION OF U.S. CAPITAL MKTS. IN THE 21ST CENTURY, REPORT AND RECOMMENDATIONS 12 (2007), available at http://www.uschamber.com/sites/default/files/reports/0703capmarkets_full.pdf (concluding that the purposes of securities regulation are

governance reforms adopted in the Sarbanes-Oxley Act after the rash of accounting scandals in 2001 and 2002 were widely criticized because of their purportedly high cost for firms and their shareholders.²² Based on a similarly cramped understanding of the economic cost of fraud, the recently adopted JOBS Act relaxed reporting and audit requirements for new public firms.²³

Securities commentators frequently warn that “onerous disclosure obligations and their accompanying liability are like the rain—they fall on the good and the bad alike.”²⁴ But securities fraud, too, harms both honest and dishonest firms, as well as their employees, creditors, and other constituents. With all costs included and tallied, the following conclusions are inescapable: (1) false disclosures affect financial markets as well as markets for inputs, labor and credit, and product markets; (2) framing financial statement fraud as fraud against investors understates the harm it causes; and (3) regulation and enforcement predicated on the assumption that securities fraud does not impose substantial negative externalities on nonshareholders leads to underregulation and underdeterrence of fraud and offers remedies that do not redress the injury.²⁵

investor protection and fostering capital formation).

21. The most commonly used securities regulation textbook lists a dozen articles for the proposition that investors bear the social cost of securities fraud. See JAMES D. COX ET AL., *SECURITIES REGULATION: CASES AND MATERIALS* 745-54 (6th ed. 2009). *But see* William W. Bratton, *Enron and the Dark Side of Shareholder Value*, 76 TUL. L. REV. 1275, 1277 (2002) (acknowledging that employees were harmed as a result of fraud at Enron).

22. See, e.g., Stephen M. Bainbridge, *Sarbanes-Oxley: Legislating in Haste, Repenting in Leisure*, 2 CORP. GOVERNANCE L. REV. 69, 84-88 (2006) (criticizing the law because it increased the costs of corporate compliance); Larry E. Ribstein, *SarbOx: The Road to Nirvana*, 2004 MICH. ST. L. REV. 279, 280; Roberta Romano, *Regulating in the Dark*, in REGULATORY BREAKDOWN: THE CRISIS OF CONFIDENCE IN U.S. REGULATION 86 (Cary Coglianese ed., 2012) (proposing sunset clauses for financial reform laws); Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521, 1526-29 (2005) (arguing that the Sarbanes-Oxley Act was unnecessary); Ivy Xiyang Zhang, *Economic Consequences of the Sarbanes-Oxley Act of 2002* (Feb. 1, 2007) (unpublished manuscript), available at <http://papers.ssrn.com/abstract=961964> (arguing that the passage of the Sarbanes-Oxley Act had a statistically significant negative impact on U.S. equity markets).

23. See, e.g., Jumpstart Our Business Startups Act, Pub. L. No. 112-06, § 104, 126 Stat. 306, 310 (2012) (codified in scattered sections of 15 U.S.C.).

24. COX ET AL., *supra* note 21, at 745.

25. Even if the cost calculus were adjusted, enforcement strategies might still underdeter when the sanction is placed on the firm if the firm cannot effectively shift it to deter the individuals who commit fraud. See, e.g., Urska Velikonja, *Leverage, Sanctions, and Deterrence of Accounting Fraud*, 44 U.C. DAVIS L. REV. 1281, 1307-12 (2011).

In Part I, this Article provides a brief overview of securities laws that require disclosure and sanction fraud. It also describes the existing consensus that securities fraud harms primarily investors by reducing capital market liquidity, depressing investor returns by misallocating capital, and impairing shareholder monitoring.

Parts II, III, and IV constitute the major contributions that this Article makes to the literature. In Part II, the Article explains analytically how false securities disclosures distort and harm nonfinancial markets. First, public firms' financial disclosures are made publicly, not only to present and future shareholders. Disclosed information is useful to a variety of market participants. If false, disclosures lead suppliers of financial as well as human capital to underprice their inputs. Second, to avoid detection, managers change the firms' observable actions—they overinvest and overhire—to match false disclosures. Thus, securities fraud interferes with economic learning, distorts real economic decisions by rivals, and impairs product markets. Third, if unmasked, accounting fraud is very costly for the firm, and the managers often pass that cost on to nonshareholders. In Parts III and IV, the Article details how false financial disclosures specifically harm employees and rivals. In each Part, the Article supplements the theoretical analysis with empirical evidence.

In Part V, the Article discusses the determinants of the cost of financial statement fraud. Not surprisingly, fraud by a larger firm and larger fraud relative to the size of the firm tend to produce a greater market distortion and cost.²⁶ Less well known, competition has a profound effect on the prevalence and the cost of securities fraud. First, fraud is generally more likely in concentrated than in competitive markets. But, during investment booms, when competitive pressure weakens, previously competitive markets succumb to fraud. Fraud is procyclical and exacerbates underlying dynamics of overinvestment and overhiring. Second, false disclosures by firms in concentrated markets are more likely to distort decision making by rivals. Third, market concentration amplifies the ability of managers to shift the cost of fraud from shareholders to nonshareholders.

26. See Langevoort & Thompson, *supra* note 11, at 374-75.

Finally, in Part VI, the Article discusses the implications of the research and proposes a few responses. If the cost of fraud falls on market participants other than investors, then self-regulation through corporate governance in which only investors have a say will have a limited effect and predictable consequences. Regulation may be necessary, but it is unclear that securities regulation and corporate law are the proper vehicles because they focus on the role and the rights of shareholders.²⁷ One worthwhile experiment might be to further reduce the lingering agency problems present in public accounting, where the firm chooses its accounting firm and its managers supply the auditor with information. Forensic audits and qui tam actions for whistleblowers might produce superior deterrence outcomes at the same cost if traded off for less effective compliance tools. Additionally, forcing managers to internalize a larger portion of the cost of securities fraud would improve their incentives to avoid fraud.²⁸ Finally, the Article considers two compensation mechanisms for victims of securities fraud other than shareholders: class actions and administrative remedies. It concludes that, although common law actions for fraud are possible, these suits face high hurdles of reliance and quantification of damages. Unlike private plaintiffs, the SEC does not need to show actual reliance or damages to find a violation and impose a civil fine. The Article considers whether the SEC has the authority, under the Fair Funds Statute in section 308 of the Sarbanes-Oxley Act, to distribute civil fines and disgorged profits it collects from securities violators to nonshareholder victims.²⁹ A close reading of the text of the statute and the legislative history suggests that the case for compensating nonshareholder victims is surprisingly strong. The fact that the SEC could compensate nonshareholder victims of fraud does not imply that it should. Instead, the Article concludes that the SEC should stop compensating shareholders.

27. Jill E. Fisch, *Measuring Efficiency in Corporate Law: The Role of Shareholder Primacy*, 31 J. CORP. L. 637, 644 (2006).

28. In my earlier writing, I have proposed a mechanism for shifting a greater share of the cost from firms to individual wrongdoers. See Velikonja, *supra* note 25.

29. 15 U.S.C. § 7246(a) (2006) (authorizing the SEC to distribute to victims of securities violations disgorgement funds and civil penalties it collects from defendants).

I. THE REGULATION OF SECURITIES FRAUD

The Securities Act and the Securities Exchange Act were adopted in the wake of the 1929 stock market crash and the Great Depression that followed.³⁰ The securities acts put in place safeguards to prevent history from repeating itself, including a system of mandatory public disclosure and sanctions for disclosure violations and fraud. This Part reviews the laws that mandate disclosure; the laws punishing missing, false, or fraudulent disclosures; and the existing literature.

A. A Summary of Regulation

Modern American securities regulation has two prongs: regulation of securities markets and the securities industry; and regulation of corporate issuers, including mandatory disclosure, the prohibition of fraud, and, more recently, corporate governance.³¹ Disclosure-based regulation aims to reduce the information asymmetry between firms that offer securities and investors who buy them.³² It assumes that so long as investors have access to information about the issuers of securities and the rights those securities confer, they can assess the risks and the returns of investment products and decide whether and at what price to buy or sell.

To that end, the securities acts and implementing regulations require firms to disclose relevant information about their financial condition, products and markets, management, and competitive

30. The crash harmed “thousands of individuals who invested their life savings, accumulated after years of effort.” H.R. REP. NO. 73-85, at 2 (1933).

31. *Santa Fe Indus., Inc. v. Green*, 430 U.S. 462, 477 (1977) (explaining that the fundamental purpose of the Exchange Act was to substitute the policy of caveat emptor with full disclosure).

32. Few remember today that the original draft of federal securities laws proposed merit review of securities offerings. See S. 875, 73d Cong. § 6(c), (e), (f) (1933), *reprinted in* 3 LEGISLATIVE HISTORY OF THE SECURITIES ACT OF 1933 AND SECURITIES EXCHANGE ACT OF 1934, at Item 28 (1973) (authorizing revocation of an issuer’s registration upon a finding “that the enterprise or business of the issue, or person, or the security is not based upon sound principles, and that the revocation is in the interest of the public welfare,” or that the issuer “is in any other way dishonest” or “in an unsound condition or insolvent”).

and regulatory climate.³³ Firms must disclose information both episodically—whenever they offer securities to the public³⁴—and periodically thereafter—annually, quarterly, and whenever significant events warrant disclosure.³⁵ Regulations S-K and S-X specify not only what information must be disclosed but also when, and in what manner, to produce disclosures that are easily comparable across firms.³⁶

To induce compliance, securities laws prohibit and punish firms for disclosures that are materially false, misleading, or, in some cases, missing, and entrust private and public agents with enforcement.³⁷ The securities acts do not make firms liable for every inaccurate disclosure. A misrepresentation must be important—or “material” in securities regulation parlance—and the materiality is measured by the significance of the misrepresentation to a reasonable investor.³⁸

In addition, the misrepresentation or omission must be related to a purchase or sale of securities.³⁹ A firm can be held liable for

33. See Securities Act of 1933 sched. A, 15 U.S.C. § 77aa (2006 & Supp. V 2012).

34. See *id.* § 77e(b)(2), (c).

35. See *Laws that Govern the Securities Industry*, U.S. SEC. & EXCHANGE COMMISSION, <http://www.sec.gov/about/laws.shtml> (last visited Mar. 26, 2013) (explaining that the Securities Exchange Act requires certain companies to “file annual and other periodic reports”).

36. See Samuel W. Buell, *What Is Securities Fraud?*, 61 DUKE L.J. 511, 570 (2011) (observing that an effective system of disclosure must make disclosures mandatory and uniform); Merritt B. Fox, *Retaining Mandatory Securities Disclosure: Why Issuer Choice Is Not Investor Empowerment*, 85 VA. L. REV. 1335, 1376-78 (1999) (explaining that before 1933, both the quantity and the quality of disclosures between issuers varied considerably, making comparisons between firms impossible).

37. Section 10(b) of the Exchange Act prohibits the use of “any manipulative or deceptive device” “in connection with the purchase or sale of any security.” 15 U.S.C. § 78j(b). The Act authorizes the SEC to develop more specific rules about prohibited activities, as necessary “in the public interest or for the protection of investors.” *Id.* The SEC exercised its statutory authority to the fullest when it adopted Rule 10b-5, prohibiting not only false statements of fact or omissions that make truthful affirmative statements misleading but also schemes or artifices to defraud and acts or practices that operate as frauds or deceptions. 17 C.F.R. § 240.10b-5 (2012). This Article focuses on false disclosures, not inaccurate stock prices that result from all three types of securities fraud.

38. For the most recent elaboration of the principle of materiality, see *Matrixx Initiatives, Inc. v. Siracusano*, 131 S. Ct. 1309, 1318 (2011) (quoting the standard as “a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of information made available” (internal quotation marks omitted)).

39. 15 U.S.C. § 78j(b); *Semerenco v. Cendant Corp.*, 223 F.3d 165, 174 (3d Cir. 2000); 17

securities fraud even if the purpose of the misleading statement was not to influence investors but rather its customers, employees, or others, and even if defendants did not envision that investors would rely on the statement.⁴⁰ The fact that the material misstatement was disseminated in a medium on which investors could rely is sufficient.⁴¹

Finally, securities laws not only prohibit fraudulent misrepresentations but also hold issuers and insiders liable for reckless—and in some cases, negligent or innocent—misrepresentations.⁴² The securities acts distinguish between primary offerings, where the firm offers new securities to investors, and secondary market transactions in the firm's existing securities between investors.⁴³ Innocent material financial misrepresentations must be corrected or restated.⁴⁴ In addition, innocent misrepresentations made during a primary offering expose the issuer itself to liability but do not subject the issuer to fines or other sanctions.⁴⁵ Negligent misrepresentations in primary offerings expose those involved in the offering, including the issuer's officers, directors, underwriters, and accountants, to both liability and sanctions.⁴⁶ Reckless or fraudulent misrepresentations expose firms and their agents to liability even when the firm does not directly benefit from fraud by selling overpriced

C.F.R. § 240.10b-5(c).

40. *Semerenko*, 223 F.3d at 176-77.

41. *Id.* (holding that acquirer shareholders could rely on statements made in a tender offer to target shareholders); *In re Carter-Wallace, Inc. Sec. Litig.*, 150 F.3d 153, 156-57 (2d Cir. 1998) (holding that an advertisement in a medical journal is made "in connection with" the purchase or sale of securities if relied upon by market professionals).

42. In a fine recent article, Samuel Buell explores the many different mental states that the courts have upheld as sufficient for establishing "securities fraud," from specific intent to defraud to mere lack of due care. See Buell, *supra* note 36, at 556-58.

43. Compare 15 U.S.C. § 77k, with 15 U.S.C. § 77q.

44. The SEC requires firms to disclose within four business days, by filing a form 8-K, that prior financial statements should no longer be relied on, followed by a restatement in a periodic or amended filing, such as an annual report on Form 10-K or quarterly report on Form 10-Q. See 17 C.F.R. §§ 240.13a-11, 240.15d-11 (2012); MARK CHEFFERS ET AL., 2009 FINANCIAL RESTATEMENTS: A NINE YEAR COMPARISON 1 (2010), available at <http://www.complianceweek.com/s/documents/AARestatements2010.pdf>. About 40 percent of all restatements are stealthy, revealed in a periodic report without a prior disclosure in Item 4.02 of a Form 8-K. *Id.*

45. 15 U.S.C. § 77k(a)-(b).

46. See *id.* §§ 77k, 77q.

securities but merely discloses materially misleading information that leads its shareholders to trade.⁴⁷

Securities laws authorize public agencies such as the SEC and federal prosecutors, self-regulatory organizations, such as FINRA, and defrauded shareholders, who are considered the victims of misrepresentations, to enforce disclosure violations.⁴⁸ Although shareholders can only seek damages, other enforcement agents can seek a variety of remedies, including injunctions, disgorgements, fines, and imprisonment.⁴⁹

Two recent amendments to securities laws departed from the shareholder-centric approach—in particular the Sarbanes-Oxley Act and, to a much lesser extent, the Dodd-Frank Act.⁵⁰ They imposed a mix of corporate governance and compliance requirements on public firms, designed to improve the accuracy of disclosures and reduce the temptation of fraudulent disclosures. These requirements include enhanced auditing and financial reporting, a ban on corporate loans to executives that might tempt them to cheat, increased reliance on independent directors as monitors, and whistleblower incentives.⁵¹

B. Existing Thought on the Harm from Securities Fraud

Congress adopted the securities acts in the 1930s with two goals in mind: to protect investors, who “were unfairly robbed of their investments during the stock market collapse of 1929,”⁵² and to further the public interest by preventing securities fraud and manipulation, which “precipitate, intensify, and prolong” “[n]ational

47. That is, misrepresentation of a known fact made with the purpose to mislead. *United States v. Piepgrass*, 425 F.2d 194, 199-200 (9th Cir. 1970); *Rice v. United States*, 149 F.2d 601, 603 (10th Cir. 1945).

48. For a discussion of the comparative advantages of different enforcers of securities violations, see James J. Park, *Rules, Principles, and the Competition to Enforce the Securities Laws*, 100 CALIF. L. REV. 115 (2012).

49. *See id.* at 138, 157.

50. Donald C. Langevoort, *The Social Construction of Sarbanes-Oxley*, 105 MICH. L. REV. 1817, 1828-33 (2007) (arguing that the Act’s provisions were animated by the desire to make public companies publicly accountable).

51. *See id.* at 1822-24, 1830-31, 1844.

52. Stephen J. Choi & Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulation*, 71 S. CAL. L. REV. 903, 941 (1998).

emergencies, which produce widespread unemployment and ... affect the public welfare.”⁵³

Since then, courts and commentators have settled on a narrower understanding of what securities fraud and fraudulent financial reporting, its most common incarnation, harm⁵⁴: securities markets.⁵⁵

When fraud is revealed, the price of the firm’s equity declines and its shareholders lose money. Fraud at a large firm like Enron or WorldCom can cause tens of billions of dollars in market capitalization to evaporate. Alarming as such declines might be, they overstate the loss to investors. For every shareholder who overpaid, there is an equally innocent shareholder who sold at an inflated price. Investors with diversified portfolios are as likely to be sellers as to be buyers of fraudulent stock, so, on average, investors’ expected cost of fraud over time approximates zero, assuming no insider trading.⁵⁶

53. Steve Thel, *The Original Conception of Section 10(b) of the Securities Exchange Act*, 42 STAN. L. REV. 385, 392 n.30, 426 n.180 (1990). Section 2 of the Securities Exchange Act talks about manipulation, excessive speculation, and “sudden and unreasonable fluctuations in the prices of securities,” which has led some to argue that the Act was concerned primarily with manipulation and integrity of stock prices, not with “full and honest disclosure or the importance of information about issuers.” *Id.* at 391-92 & n.30. But surely, the Act as it has subsequently been applied by the Supreme Court is not *unconcerned* with misleading disclosures. *See, e.g.,* *Matrixx Incentives, Inc. v. Siracusano*, 131 S. Ct. 1309 (2011); *Sante Fe Indus. v. Green*, 430 U.S. 462 (1977).

54. *See* MARK S. BEASLEY ET AL., COMM. OF SPONSORING ORGS. OF THE TREADWAY COMM’N, FRAUDULENT FINANCIAL REPORTING 1998-2007: AN ANALYSIS OF U.S. PUBLIC COMPANIES 17-18 (2010), available at http://www.coso.org/documents/COSOFRAUDSTUDY2010_001.PDF (reporting that 14 percent of SEC enforcement actions included misappropriating assets, while most of the rest involved “intentionally misstating financial statement information”); CORNERSTONE RESEARCH, SECURITIES CLASS ACTION FILINGS: 2011 YEAR IN REVIEW 28 fig.26 (2012), available at http://securities.stanford.edu/clearinghouse_research/2011_YIR/Cornerstone_Research_Filings_2011_YIR.pdf (reporting that 94 percent of class actions filed in 2011 alleged misrepresentations in financial documents, a percentage that has remained stable over the years).

55. The courts have identified at least eight separate policies underlying the rule against securities fraud: “(1) maintaining free securities markets; (2) equalizing access to information; (3) insuring equal bargaining strength; (4) providing for disclosure; (5) protecting investors; (6) assuring fairness; (7) building investor confidence; and (8) deterring violations while compensating victims.” 5B ARNOLD S. JACOBS, DISCLOSURE AND REMEDIES UNDER THE SECURITIES LAWS § 6:4 (2012). Professor Miriam Baer recently observed that “most commentators would agree ... [that] fraud is bad for the securities markets.” Miriam Hechler Baer, *Insuring Corporate Crime*, 83 IND. L.J. 1035, 1076 (2008).

56. To quote Judge Posner, “Often the net measurable damages from a stock fraud will

If crooked managers reduce their stockholdings while cooking the books,⁵⁷ financial statement fraud will injure even diversified investors because insider trading transfers value from public investors to insiders who sell their stock at inflated prices. But that transfer is much smaller than the aggregate decline in the price of affected stock because insiders' sales represent only a small fraction of aggregate transactions in the stock.⁵⁸ More importantly, a prudent investor diversifies anyway, so there is no incremental cost to diversify in the face of fraud. Assuming that investors fully internalize the costs of fraud, a number of courts and commentators have concluded that the measure of ill-gotten gains from insider trading is the *net social cost* of fraud.⁵⁹

The literature that followed recognized three additional categories of costs from fraud. Professor Paul Mahoney observed that the transfer of value from public investors to insiders is not costless because it affects how investors behave.⁶⁰ Burglaries lead people to

be zero." Richard A. Posner, *Law and the Theory of Finance: Some Intersections*, 54 GEO. WASH. L. REV. 159, 169 (1986); *see also* Janet Cooper Alexander, *Rethinking Damages in Securities Class Actions*, 48 STAN. L. REV. 1487, 1502 (1996) (arguing that diversification and frequent trading effectively protect investors against securities fraud); Richard A. Booth, *The End of the Securities Fraud Class Action as We Know It*, 4 BERKELEY BUS. L.J. 1, 10-11 (2007) (contending that investors can fully protect themselves from securities fraud losses by diversifying their holdings). *But see* Alicia J. Davis, *Are Investors' Gains and Losses from Securities Fraud Equal over Time? Theory and Evidence* 31-32 (Univ. of Mich. Law Sch. Empirical Legal Studies Ctr., Working Paper No. 09-002, 2010), *available at* <http://ssrn.com/abstract=1121198> (finding that while it is true that investors' expected losses ex ante approximate zero, the losses they suffer take a range of values).

57. *See, e.g.*, Simi Kedia & Thomas Philippon, *The Economics of Fraudulent Accounting*, 22 REV. FIN. STUD. 2169, 2170 & fig.1 (2009) (noting that Enron insiders sold millions of dollars worth of Enron stock while fraud was ongoing, but billions in fact changed hands during that time).

58. *See* Richard A. Booth, *What Is a Business Crime?*, 3 J. BUS. & TECH. L. 127, 142-43 (2008) (arguing that absent insider trading, investor losses equal investor gains).

59. *See* Siebel v. Scott, 725 F.2d 995, 1001-02 (5th Cir. 1984); Janigan v. Taylor, 344 F.2d 781, 786-87 (1st Cir. 1965); A.C. Pritchard, *Stoneridge Investment Partners v. Scientific-Atlanta: The Political Economy of Securities Class Action Reform*, 2007-2008 CATO SUP. CT. REV. 217, 219 (arguing that disgorgement of unlawful gains is the right measure of damages for securities fraud because it approximates the social costs of fraud). *But see* Frank H. Easterbrook & Daniel R. Fischel, *Optimal Damages in Securities Cases*, 52 U. CHI. L. REV. 611, 651-52 (1985) (arguing that damages should be based on the offenders' acts rather than profits).

60. *See* Paul G. Mahoney, *Precaution Costs and the Law of Fraud in Impersonal Markets*, 78 VA. L. REV. 623, 631 (1992) (noting that if the legal system did not deter fraud, investors would take greater precautions against it). A transfer of value from one party to another is

take precautions—including buying heavier locks, handguns, or safe deposit boxes, all of which are direct costs—and to reduce their willingness to buy expensive jewelry in the first place, an opportunity cost.⁶¹ Similarly, because of securities fraud, investors might spend resources trying to verify the truthfulness of disclosures before investing.⁶² Some investors might stay away from equity markets for fear that they would lose systematically to better informed traders and insiders, thereby marginally reducing securities market liquidity and increasing the cost of assembling and maintaining a diversified portfolio of securities.⁶³ Both effects depress the price that investors are willing to pay for newly issued and existing securities, thereby increasing the cost of new capital for firms and reducing returns for existing investors. In the absence of fraud, firms could issue new securities at higher prices. Existing investors who have already purchased securities, on the other hand, are neutral if the level of fraud remains stable over time. If it declines, the value of their portfolios should increase to reflect the lower risk of fraud; if it rises, the value of their portfolios should decline.

Second, managers and insiders benefit from false disclosures.⁶⁴ To reduce their incentive to lie, or to look the other way, enforcement is necessary to confront the malefactors with the cost of their violation.⁶⁵ Enforcement costs—the costs of “unmasking the offense,”

not a social cost per se. But, a zero-cost transfer assumes perfect competition, information, substitution, and rationality, as well as zero transaction costs. When these assumptions are relaxed, as they must be, all transfers will produce social deadweight losses.

61. See Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169, 171 (1968) (arguing that precaution is a large element of the social cost of crime, but it remains unaccounted for).

62. *But see* Mahoney, *supra* note 60, at 631 (noting that investors take few precautions because of legal prohibitions against fraud).

63. See Marcel Kahan, *Securities Laws and the Social Costs of “Inaccurate” Stock Prices*, 41 DUKE L.J. 977, 1043 (1992).

64. A misrepresentation in a registration statement prepared for a primary offering yields an immediate and direct benefit to the firm as investors overpay for securities that the firm and its insiders sell. A misrepresentation in a firm’s periodic disclosure produces a less direct and usually smaller benefit to the firm because the firm does not capture the entire increase in its stock price, though it enables the firm to make cheap acquisitions using its own stock or negotiate better loan terms. See, e.g., *Cenco Inc. v. Seidman & Seidman*, 686 F.2d 449, 451 (7th Cir. 1982) (listing cheap acquisitions and lower borrowing costs among the benefits to the firm from fraudulent disclosure).

65. See RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 349-50 (1972). It is irrelevant from the social welfare standpoint whether the violator pays the cost to the victims or into

conducting an internal and external investigation, and litigating violations⁶⁶—are substantial.

Third and finally, misrepresentations tend to inflate stock prices and thus upset the allocation of economic resources through two separate mechanisms. In an ideal society, all projects would be rank ordered based on their risk-adjusted expected returns.⁶⁷ Assuming that capital is scarce, not all projects can be funded. Fraudulent firms attract capital and overinvest in low-yield projects, while honest firms cannot fund good projects.⁶⁸ The misallocation of capital reduces returns on equity investment and produces a dead-weight loss to society from having foregone superior projects.⁶⁹

In addition, stock prices are used as a yardstick for managerial compensation and retention. Professors Jennifer Arlen and Bill Carney were the first to observe that managers commit fraud when they fear that but for the false disclosure, they would be fired.⁷⁰ Inaccurate disclosures mask poor performance and prevent value-enhancing changes in management.⁷¹ In addition, knowing that sanctions follow discovery, managers of fraudulent firms spend resources trying to conceal fraud and avoid punishment.⁷²

Unlike the stock price decline, there is no obvious way to measure the cost of financial misrepresentations to nonshareholder constituents and to the economy. In an influential treatise, Judge Frank Easterbrook and Professor Daniel Fischel suggested that, except for investors, all stakeholders can protect themselves effectively by contract and thus suffer no harm from fraud.⁷³ Professor Ray Ball

state coffers. *See id.*

66. Easterbrook & Fischel, *supra* note 59, at 623.

67. Fox, *supra* note 36, at 1358.

68. Kahan, *supra* note 63, at 1010; *see* Tracy Yue Wang, Corporate Securities Fraud: An Economic Analysis 16-18 (Apr. 2006) (unpublished manuscript), available at <http://ssrn.com/abstract=500562> (explaining the dynamic theoretically).

69. Fox, *supra* note 36, at 1358-59.

70. Jennifer H. Arlen & William J. Carney, *Vicarious Liability for Fraud on Securities Markets: Theory and Evidence*, 1992 U. ILL. L. REV. 691, 701-03 & n.58.

71. *See id.* at 703. Note that the change in management can take place either by the existing board of directors, who can fire the manager and find a better one, or by a different board put in place after a change in control through a takeover. *See* Fox, *supra* note 36, at 1364 & n.66.

72. Posner, *supra* note 56, at 170; Qi Zhou, *Contractual Mistake and Misrepresentation*, in *CONTRACT LAW AND ECONOMICS* 31, 41 (Gerrit De Geest ed., 2011).

73. FRANK H. EASTERBROOK & DANIEL R. FISCHEL, *THE ECONOMIC STRUCTURE OF*

went further to suggest that employees, in particular, benefit when a firm's managers engage in financial misreporting because misreporting delays business failure.⁷⁴

Other commentators have left room for the possibility that widespread securities fraud could harm nonfinancial markets. Professor Marcel Kahan suggested that inaccurate stock prices could precipitate a recession.⁷⁵ Professor Bill Bratton observed that the blind pursuit of shareholder value at Enron was not in the interest of society, and even shareholders themselves.⁷⁶ In an influential recent article, Professors Don Langevoort and Bob Thompson argue that fraud by the largest firms could result in large social harm, but fraud by their smaller peers could not.⁷⁷

The approach taken by the securities regulators has largely followed the commentators' lead. Shareholders, who act on the false disclosure and change their position for the worse, are perceived as the primary victims of securities fraud.⁷⁸ The law gives them a private right of action for damages and entitles them to the fair funds:

CORPORATE LAW 35-37 (1991) (observing that employees make firm-specific investments, but arguing that nonshareholder groups can protect themselves adequately through contract); see also Jonathan R. Macey, *Externalities, Firm-Specific Capital Investments, and the Legal Treatment of Fundamental Corporate Changes*, 1989 DUKE L.J. 173, 188-92 (noting that firm-specific capital can be adequately protected by contract).

74. Professor Ball assumes that business failure is inevitable; fraud does not increase the odds of bankruptcy. At least for the firms that get caught for fraud, the assumption appears unrealistic, given the high cost of investigation and sanctions. See Ray Ball, *Market and Political/Regulatory Perspectives on the Recent Accounting Scandals*, 47 J. ACCT. RES. 277, 297-99 (2009).

75. Kahan, *supra* note 63, at 1034-35. But see MILTON FRIEDMAN & ANNA JACOBSON SCHWARTZ, *A MONETARY HISTORY OF THE UNITED STATES 1867-1960*, at 691-92 (1963) (arguing that misguided monetary policy caused the Great Depression).

76. Bratton, *supra* note 21, at 1360-61.

77. Langevoort & Thompson, *supra* note 11, at 374-75. They observed that accounting frauds in WorldCom and Enron caused "immense pain to employees and retirees," cost their competitors billions of dollars, and severely distorted the regulated markets in which the two firms operated. *Id.* The reason for the large social harm associated with the fraud was the firms' size, while financial manipulation at smaller firms produces harms that are local and contained. *Id.*

78. See *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723, 730-31 (1975) (affirming the rule first adopted in *Birbaum v. Newport Steel Corp.*, 193 F.2d 461 (2d Cir. 1952), that a person who is neither a purchaser nor a seller of securities may not bring an action under section 10(b) of the Securities Exchange Act).

disgorgements of wrongful profits and civil fines that the SEC collects from securities violators.⁷⁹

The injured-shareholder-centric understanding of the harm from financial statement fraud suggests that false disclosures cause relatively little harm, which has led lawmakers, regulators, the business community, and academic commentators to express concerns about the cost of compliance and overenforcement of fraud.⁸⁰ Responding to the sentiment that the cost of compliance had depressed job growth,⁸¹ Congress recently passed the JOBS Act to allow newly public companies to produce more limited disclosures than firms with a longer public tenure.⁸² The analysis and discussion in the Parts that follow suggest that the rush to deregulate was premised on an economically flawed assumption that investors bear the entire cost of securities fraud. Once that assumption is relaxed, the rationale for deregulation, as well as reforms designed to empower shareholders, largely disappears.⁸³

79. See 15 U.S.C. § 7246(a) (2006).

80. See, e.g., R. WILLIAM IDE, III, ABA TASK FORCE ON ATTORNEY-CLIENT PRIVILEGE, REPORT TO ABA HOUSE OF DELEGATES ON EMPLOYEE RIGHTS 17 (2006), available at http://apps.americanbar.org/buslaw/attorneyclient/materials/hod/emprights_report_adopted.pdf (arguing that civil and criminal enforcement actions against fraud harmed firms, “erode[d] individuals’ constitutional ... rights, [and] undermine[d] the role of lawyers”); ANJAN THAKOR, U.S. CHAMBER INST. FOR LEGAL REFORM, THE UNINTENDED CONSEQUENCES OF SECURITIES LITIGATION 1 (2005), available at <http://www.instituteforlegalreform.com/doc/the-unintended-consequences-of-securities-litigation> (asserting that sanctions in securities fraud class actions overcompensate investors); U.S. CHAMBER OF COMMERCE, REPORT ON THE CURRENT ENFORCEMENT PROGRAM OF THE SECURITIES AND EXCHANGE COMMISSION 2 (2006), available at <http://www.uschamber.com/sites/default/files/reports/0603secenforcementstudy.pdf> (suggesting that the SEC had adopted an “overly punitive approach to enforcement”); Mahoney, *supra* note 60, at 625-26 (arguing that the fraud on the market doctrine overdeters voluntary disclosure by firms); Charles E. Schumer & Michael R. Bloomberg, *To Save New York, Learn from London*, WALL ST. J., Nov. 1, 2006, at A18 (suggesting that excessive regulations force corporate leaders to spend time on compliance to the detriment of growth-related activities).

81. See *Examining Investor Risk in Capital Raising: Hearing Before the Subcomm. on Sec., Ins. & Inv. of the S. Comm. on Banking, Hous. & Urban Affairs*, 112th Cong. 2 (2011) (testimony of Professor John C. Coates IV).

82. Jumpstart Our Business Startups Act, Pub. L. No. 112-106, § 102, 126 Stat. 306, 308-10 (2012) (to be codified at 15 U.S.C. § 78n-1) (providing for reduced disclosure and audit requirements for “emerging growth companies”). Interestingly, 85 percent of qualifying firms that went public after the adoption of the JOBS Act have opted to provide more robust disclosures, for fear of turning off investors. Jessica Holzer, *Some Firms Shun Looser IPO Rules*, WALL ST. J., Nov. 14., 2012, at C1.

83. For example, the Dodd-Frank Act grants shareholders the right to vote on executive

II. OVERVIEW OF FINANCIAL MISREPRESENTATIONS

Securities fraud encompasses many different types of actions.⁸⁴ This Article focuses on financial misrepresentations, also known as fraudulent financial reporting or accounting fraud.⁸⁵ They are not only the most common species in the menagerie of securities fraud⁸⁶ but also tend to be particularly harmful for the firm's nonshareholder constituents and its rivals.

Fraudulent financial reporting generates negative externalities to nonshareholders. There is some evidence that these externalities exceed the losses suffered by defrauded shareholders by a significant margin.⁸⁷ Fraudulent financial reporting impairs economic decision making of nonshareholders in three ways.

First, fraudulent disclosures are made publicly, not only to present and future shareholders. Creditors have long relied on financial statements to price credit, but employees and suppliers, too, rely on financial disclosures to assess the viability of the firm and the risk of failure, and thus their expected payoff from explicit and implicit contracts with the firm. Moreover, to avoid detection, managers' other statements and business choices must be consistent with reported, but fraudulent, financial results. Many of those state-

compensation. Dodd-Frank Act, Pub. L. No. 111-203, § 951, 124 Stat. 1376, 1899-1900 (2010) (to be codified at 15 U.S.C. § 78n).

84. See Buell, *supra* note 36, at 541-44 (describing the various meanings of "securities fraud").

85. Financial misrepresentations come in many shapes and sizes. Some require a restatement of previously released financial statements, others do not. Not all restatements suggest fraud, though 80 percent of restatements between 1997 and 2002 were negative. Kedia & Philippon, *supra* note 57, at 2178. Not all accounting frauds are followed by a restatement. See Alexander Dyck et al., How Pervasive Is Corporate Fraud? 32-33 (Aug. 2011) (unpublished manuscript), available at http://faculty.chicagobooth.edu/adair.morse/research/papers/pervasiveness_aug2011.pdf (estimating that 38 percent of caught frauds do not require a restatement, such as disclosures of half-truths or misleading forward-looking information). Even when a restatement would have been required, some firms do not survive long enough to file a restatement (Enron, for example), some ignore the SEC's instruction to file a restatement, and some take a one-time accounting charge in lieu of filing a restatement. See Jonathan M. Karpoff et al., *The Cost to Firms of Cooking the Books*, 43 J. FIN. & QUANTITATIVE ANALYSIS 581, 585 & n.9 (2008).

86. See CORNERSTONE RESEARCH, *supra* note 54, at 28 fig.26.

87. See *supra* note 15 and accompanying text.

ments are communicated to nonshareholders with the intention to influence their behavior.

Second, and relatedly, there is evidence that fraudulent managers increase investment and hiring, and change pricing during periods of fraudulent reporting.⁸⁸ This interferes with economic learning by rivals and thus distorts real economic decisions that misreporting firms and their honest peers make. Their increased hiring and investment were premised on fraud. This fact increases the marginal risk that the industry will shrink if the misrepresentation is unmasked.

Third, if fraud is discovered, the aftermath—investigations, litigation, and enforcement actions—is usually very costly for firms and their constituents. Less well known is the fact that rivals, too, suffer losses in the aftermath. Shareholders do not internalize all those losses, and there is evidence that both fraudulent firms and their rivals shift some of the losses to their employees, creditors, and the government as insurer of last resort.⁸⁹

This Part begins with an overview of why managers misrepresent their firm's financial performance, how misrepresentations distort economic decision making, and how frequently accounting fraud occurs.

A. *The Anatomy of a Misrepresentation*

A rational manager might commit or conceal fraud when he believes that his personal benefit exceeds the impact he would suffer if fraud were unmasked, discounted by the likelihood of detection.⁹⁰ The most common reason that managers release false disclosures appears to be their desire to disguise disappointing performance.⁹¹

88. This is the mirror image of the argument that fraud misdirects capital and labor from honest firms to fraudulent firms. The effect is the same, but it is useful to reframe how the decision is made. At the level of the overall economy, fraudulent financial reporting misallocates capital and labor among firms, producing social deadweight losses.

89. A reduced tax base and payments for unemployment insurance are a large source of the cost of fraud to the government.

90. See Arlen & Carney, *supra* note 70, at 702-03.

91. See *id.* at 701-02. Even in the largest frauds, managers rarely set out to commit the fraud that ultimately results: when performance disappoints, managers usually exhaust legal options before resorting to those that are illegal. See Patricia M. Dechow et al., *Predicting Material Accounting Misstatements*, 28 CONTEMP. ACCT. RES. 17, 19 (2011). As Professor Don

Managers face a lot of pressure to meet performance expectations: earning performance-based compensation, avoiding termination, increasing the odds of promotion, avoiding the downgrade in the firm's debt, and averting employee exodus. They know that stock prices of firms that miss even a single earnings target decline substantially, and fear that their jobs and reputations might be on the line. In particular when managers wishfully think that the shortfall is only temporary and that real performance will soon improve, the temptation to overstate earnings might be hard to resist.⁹² Concealing bad news buys the manager time.⁹³

In what appears to be a smaller subset of cases, managers misreport their company's performance because of greed: the structure of managerial compensation provides supercharged incentives for fraud. They overstate the firm's financials to inflate the stock price, exercise their stock options, and pocket millions of dollars.⁹⁴

Langevoort and others have suggested, managers usually begin by manipulating just a little, perhaps to cover a temporary blip in performance, and hope that they can smooth over the manipulation in the next period. When the next period fails to bring good news, the slippery slope leads managers to ever greater manipulation. See Donald C. Langevoort, *Resetting the Corporate Thermostat: Lessons from the Recent Financial Scandals About Self-Deception, Deceiving Others and the Design of Internal Controls*, 93 GEO. L.J. 285, 308 (2004); see also Michael D. Guttentag, *Stumbling into Crime: Stochastic Process Models of Accounting Fraud*, in RESEARCH HANDBOOK ON THE ECONOMICS OF CRIMINAL LAW 204, 217-18 (Alon Harel & Keith N. Hylton eds., 2012).

92. Arlen & Carney, *supra* note 70, at 702-03 (identifying the "last period" problem as an important cause of accounting fraud); Dechow et al., *supra* note 91, at 19-20 (finding that alleged fraudulent firms had strong performance before the misrepresentation, and that true performance declined during periods of fraud). In addition, accounting principles are sufficiently flexible to allow a manager to rationalize the fraud as merely aggressive accounting undertaken in the interest of increasing shareholder wealth. See, e.g., David A. Westbrook, *Corporation Law After Enron: The Possibility of a Capitalist Reimagination*, 92 GEO. L.J. 61, 74 (2003) (explaining the lack of clarity provided by the Generally Accepted Accounting Principles).

93. Arlen & Carney, *supra* note 70, at 703; William W. Bratton & Michael L. Wachter, *The Political Economy of Fraud on the Market*, 160 U. PA. L. REV. 69, 106 (2011).

94. See A.C. Pritchard, *Markets as Monitors: A Proposal to Replace Class Actions with Exchanges as Securities Fraud Enforcers*, 85 VA. L. REV. 925, 932-34 (1999) (arguing that greed can induce managers to commit accounting fraud). Don Langevoort suggested that layers of hierarchy in large organizations naturally produce falsely optimistic or self-serving information because employees at every level have an incentive to embellish or rationalize. See Donald C. Langevoort, *Organized Illusions: A Behavioral Theory of Why Corporations Misdlead Stock Market Investors (and Cause Other Social Harms)*, 146 U. PA. L. REV. 101, 107 (1997).

Whatever the reason for the misrepresentation, all frauds are alike: managers release misleading information about the firm's financial performance. The statement is usually accompanied by similarly misleading public pronouncements.⁹⁵ To avoid detection, communications with the investment community as well as the firm's stakeholders must match the fraudulent financial disclosure. To the extent they are observable, managers must change the firm's real actions to conform to its reported financial health.⁹⁶ Managers might sell output at a loss, announce new projects, overinvest in fixed assets, and overhire.⁹⁷ To better mask fraud, managers might choose projects with higher cash-flow volatility—"lottery tickets"—or projects whose returns are not correlated with existing investments.⁹⁸ They lie to their accountants⁹⁹ and even pay taxes on non-existent earnings.¹⁰⁰

Unless and until fraud is discovered, the inflated stock price benefits managers as well as the firm's current shareholders.¹⁰¹ The fraudulent firm can make cheap stock-for-stock acquisitions using

95. See Stephen P. Baginski et al., *To Tell the Truth: Management Forecasts in Periods of Accounting Fraud 3* (July 2011) (unpublished manuscript), available at http://jindal.utdallas.edu/som/files/BMST_Fraud-McGuire_UTD_Presentation.pdf (finding that managers issue pessimistic forecasts during periods of accounting fraud and manipulate the firm's earnings to meet or beat them). Professor Wang suggests that the reason for releasing pessimistic forecasts is that failing to meet performance expectations increases the probability that fraud will be detected because disappointed investors might begin an external investigation. Tracy Yue Wang, *Corporate Securities Fraud: Insights from a New Empirical Framework*, J.L. ECON. & ORG. (forthcoming) (manuscript at 11), available at <http://ssrn.com/abstract=561425>.

96. See Sadka, *supra* note 8, at 447 (observing that managers will change their business decisions to conceal fraud, but only if fraud itself is punished).

97. See *id.* at 439, 457-58.

98. See Wang, *supra* note 68 (manuscript at 15).

99. See, e.g., BETHANY MCLEAN & PETER ELKIND, *THE SMARTEST GUYS IN THE ROOM: THE AMAZING RISE AND SCANDALOUS FALL OF ENRON* 128, 157-58 (2003) (describing examples of deals where Enron executives misrepresented facts to its accountant, Arthur Andersen).

100. See Merle Erickson et al., *How Much Will Firms Pay for Earnings that Do Not Exist? Evidence of Taxes Paid on Allegedly Fraudulent Earnings*, 79 ACCT. REV. 387, 389-90 (2004) (reporting that out of twenty-seven firms subject to SEC enforcement actions during the studied period, fifteen paid taxes on overstated earnings; the total amount of taxes paid represented 2.4 percent of the firms' market value and 20 percent of the pretax value of overstated earnings).

101. See Westbrook, *supra* note 92, at 97-100, 105 (observing that managers and shareholders have an interest in earnings management and high stock prices, but that that interest conflicts with the public interest of accurate pricing).

its overpriced equity, negotiate better loan terms as a result of its perceived lower risk, and hire more talented workers, excited about the firm's bright future.¹⁰² The beneficiaries also include those who sell the firm's stock and debt in the secondary markets during fraud.¹⁰³

A misrepresentation communicates to those who contract with the firm that the firm's financial health is better than it really is, that the firm poses a low credit risk, and that it is less likely to terminate employees for business reasons. Fraudulent disclosures also interfere with other firms' ability to understand the markets in which they operate. Firms' managers and directors do not know *ex ante* which business strategy is optimal and so they look to their rivals as gauges of what the market wants. Significant misreporting impairs rivals' ability to discern the value of new investments and may lead an entire industry to adopt a misguided business strategy.¹⁰⁴

There is evidence that earnings manipulation is very common, and that many frauds are never detected.¹⁰⁵ Estimated detection rates vary from a high of 100 percent¹⁰⁶ to a low of 2.39 percent.¹⁰⁷ In a recent study that uses three different methods to estimate the prevalence of fraud, Professors Alexander Dyck, Adair Morse, and Luigi Zingales suggested that only about 25 percent of significant

102. *See* Cenco Inc. v. Seidman & Seidman, 686 F.2d 449, 451 (7th Cir. 1982).

103. For example, Enron's Lou Pai left the firm early in 2001 with \$250 million in Enron stock and stock options. As a result of a divorce settlement, he sold his holdings in May and June 2001, a mere six months before Enron filed for bankruptcy. MCLEAN & ELKIND, *supra* note 99, at 334.

104. Abigail Brown & Simon D. Angus, Destroying Creative Destruction: The Social Welfare Cost of Fraud 5-6 (Oct. 13, 2010) (unpublished manuscript), available at <http://abigailbrown.files.wordpress.com/2009/08/non-anon1.pdf>. *See generally* Richard R. Nelson & Sidney G. Winter, *Evolutionary Theorizing in Economics*, 16 J. ECON. PERSP. 23 (2002) (explaining evolutionary economics and comparing it with neoclassical assumptions).

105. Joseph Gerakos & Andrei Kovrijnykh, *Reporting Bias and Economic Shocks* 4 (Univ. of Chi. Booth Sch. of Bus., Working Paper No. 10-12, 2010), available at <http://ssrn.com/abstract=1546478> (finding that, on average, 17-20 percent of firms with sufficient data on COMPUSTAT exhibit significant earnings manipulation).

106. Langevoort, *supra* note 94, at 106 (voicing the popular belief that all fraud is ultimately caught).

107. *See* Artur Filipe Ewald Wuerges & Jose Alonso Borba, Accounting Fraud Detection: Is It Possible to Quantify Undiscovered Cases? 1 (Dec. 1, 2010) (unpublished manuscript), available at <http://ssrn.com/abstract=1718652>.

frauds are ever caught.¹⁰⁸ They found that, in any given year, 1.3 percent of firms that are ultimately caught begin misreporting, and 3.2 percent have ongoing fraud.¹⁰⁹ Extrapolating from evidence they collected, the authors estimated that, at any given time, between 11.2 and 13.2 percent of firms are manipulating their earnings.¹¹⁰

B. If and After the Truth Is Revealed

Empirical studies suggest that exposing fraudulent financial reporting is very costly for firms. About one-third of the firms that are targets of SEC enforcement actions for misreporting file for bankruptcy.¹¹¹ Because many firms that cook their books are financially stressed beforehand, it is likely that in many cases, fraud merely delays bankruptcy that was inevitable.¹¹² Delayed bankruptcy is not necessarily a boon to nonshareholder constituents. During fraud, a firm's performance might deteriorate beyond repair, while managers' costly efforts to avoid detection make things worse.¹¹³ In addition, a reasonable number of fraudulent firms that file for bankruptcy would have avoided failure in the absence of

108. Dyck et al., *supra* note 85, at 11.

109. *Id.* at 10. The passage of the Sarbanes-Oxley Act significantly reduced the number of detected frauds, from a high in 2001 when 5.3 percent of firms were committing fraud, to a post-SOX low of 1.3 percent in 2004. *Id.* at 9-10.

110. *Id.* at 5.

111. See BEASLEY ET AL., *supra* note 54, at 40 & tbl.28 (reporting that 28 percent of the firms subject to an enforcement action between 1998 and 2007 filed for bankruptcy within two years); Karpoff et al., *supra* note 85, at 593 (reporting that 34 percent of firms subject to an SEC or Department of Justice enforcement action between 1978 and 2002 filed for bankruptcy).

112. See BEASLEY ET AL., *supra* note 54, at 11 (reporting that the median net income of a fraudulent firm was a mere \$875,000, while the 25th percentile firms faced net losses of \$2.1 million).

113. Not all fraud-induced bankruptcies result in liquidation. Rather, the business reorganizes, mitigating the harm of bankruptcy to the stakeholders (as well as the shareholders, who often receive an equity slice in the reorganized firm). See UCLA-LOPUCKI BANKRUPTCY RESEARCH DATABASE, <http://lopucki.law.ucla.edu/spreadsheet.htm> (last visited Mar. 26, 2013) (suggesting that most fraud-induced bankruptcies resulted with a confirmed Chapter 11 plan of reorganization). The presence of a confirmed Chapter 11 plan, however, overstates the number of fraudulent firms that survive bankruptcy. Enron emerged with a confirmed Chapter 11 plan, but the sole purpose of the surviving entity, Enron Creditors Recovery Corp., is to liquidate Enron's assets for the benefit of its creditors. See *About ECRC*, ENRON CREDITORS RECOVERY CORP., http://www.enron.com/index_option_com_content_task_section_id_1_itemid_2.htm (last visited Mar. 26, 2013).

fraud or, alternately, would have filed for bankruptcy protection earlier, before things deteriorated beyond repair. A number of studies have found that a substantial percentage of firms, if not the majority, were financially healthy in the period before the financial manipulation.¹¹⁴

Estimating how many bankruptcies that accounting fraud causes is difficult, but empirical evidence suggests that the number might be relatively high. Professors Karpoff, Martin, and Lee have found that being caught for accounting fraud is very costly for firms.¹¹⁵ Having studied all cases of financial misreporting that were subject to SEC and DOJ enforcement actions between 1978 and 2002, they found that for every dollar in increased market value due to fraudulent disclosure, the firm lost that dollar after unmasking of fraud and an additional \$3.08 (\$3.83 for firms that did not file for bankruptcy).¹¹⁶ Of that additional loss, only 36 cents—or 8.8 percent—was due to expected legal penalties, while the remaining \$2.71 accounted for what they called lost “reputation.”¹¹⁷ Some part of the reputational loss reflects the cost of conducting an internal investigation, defending the firm in litigation, and suffering the collateral consequences of enforcement actions, such as the loss of government contracts.¹¹⁸ Another part reflects the “exodus of current customers and employees,” the firm’s expected lower sales,¹¹⁹ and the higher cost of contracting and financing.¹²⁰

114. A 2010 study prepared by the Treadway Commission reported that one-quarter of the firms subject to an SEC enforcement action for financial manipulation between 1998 and 2007 reported net income of over \$18 million in the quarter before they began manipulating their earnings, while the highest net income firm in the sample reported almost \$8.9 billion. BEASLEY ET AL., *supra* note 54, at 11 & tbl.1. Another study found that 25 percent of bankrupt companies with revenues over \$1 billion were subject to an SEC enforcement action. DELOITTE FORENSIC CTR., TEN THINGS ABOUT BANKRUPTCY AND FRAUD: A REVIEW OF BANKRUPTCY FILINGS § 9 (2008), available at http://www.bankruptcyfraud.typepad.com/Deloitte_Report.pdf.

115. See Karpoff et al., *supra* note 85, at 581.

116. *Id.*

117. *Id.*

118. See Jennifer Arlen, *Corporate Criminal Liability: Theory and Evidence*, in RESEARCH HANDBOOK ON THE ECONOMICS OF CRIMINAL LAW, *supra* note 91, at 144, 150-61; Baer, *supra* note 55, at 1062 (observing that securities fraud may result in delisting or losing government contracts).

119. Baer, *supra* note 55, at 1062.

120. See Sudheer Chava et al., Why Won't You Forgive Me? The Dynamics of Borrower Reputation Following Financial Reporting 3 (Feb. 27, 2012) (unpublished manuscript), available at <http://ssrn.com/abstract=2012691> (finding that firms that released fraudulent

Professors Dyck, Morse, and Zingales looked instead at the reduction in the value of the enterprise, measured by sales and assets. After adjusting for the fact that firms commit fraud to hide bad news, they found that accounting fraud destroys about 40 percent of firm value.¹²¹ In addition, disclosing fraud usually produces a sudden and significant shock to the firm, and the very suddenness is costly by itself.¹²²

Even those fraudulent firms that avoid bankruptcy often suffer other significant consequences: many delist—47 percent compared with 20 percent for nonfraud firms over a ten-year period—and are twice as likely as their honest peers to engage in material asset sales—62 percent versus 31 percent.¹²³

Undiscovered financial statement fraud and its cost are largely invisible. We do not know whether undiscovered frauds are similar to discovered frauds or different in important respects, including their duration. It is possible that hidden earnings manipulation averts or delays some bankruptcies by diverting capital and labor to fraudulent firms. But honest firms from which resources have been diverted cannot go ahead with worthwhile projects. In addition, actions that managers take to conceal fraud are costly in and of themselves and often very risky. It thus seems highly unlikely that undetected accounting fraud would, on net, benefit employees or creditors.¹²⁴ There is no doubt that hidden fraud harms rivals, who adopt misguided strategies and invest in low-return projects based on projections informed by accounting misrepresentations of their peers.

financial statements pay more for credit for at least six years after fraud is unmasked).

121. Dyck et al., *supra* note 85, at 5.

122. As one commentator observed, Enron, seventh on the 2001 Fortune 500 list by revenues, melted down “abruptly, essentially without warning.” JOEL SELIGMAN, *THE TRANSFORMATION OF WALL STREET* 728 (3d ed. 2003).

123. BEASLEY ET AL., *supra* note 54, at 40 & tbl.28.

124. Experimental studies suggest that fraud increases the cost of capital for honest firms, causing them to forgo profitable new projects or abandon current ones. Oren Bar-Gill & Lucian Arye Bebchuk, *Misreporting Corporate Performance* 24 (Harv. Law Sch., John M. Olin Ctr. for Law, Econ. & Bus., Discussion Paper No. 400, 2002), available at http://papers.ssrn.com/abstract_id=354141.

III. FINANCIAL MISREPRESENTATIONS AND INTRAFIRM COST

The nexus of contracts theory, which has been fantastically influential in shaping U.S. corporate law and securities regulation, assumes that the firm is a team of inputs organized under a net of related contractual arrangements.¹²⁵ The contracts require the firm to pay claimants fixed amounts, except for shareholders, whose claims are variable and depend on the residual value of the enterprise: the firm's profits.¹²⁶ The value of an investment in stock depends entirely on the estimates of profits the firm might generate in the future. Insiders, usually managers, can manipulate these estimates by releasing false but credible information. Fraudulent disclosures inflate the stock price, while eventual exposure of fraud returns the price to the correct level reflecting fundamentals, which is what the price would have been absent fraud.¹²⁷ Sellers win, buyers lose, and those who hold on are unaffected by fraud.¹²⁸

The neoclassical theory posits that fixed claimants are unaffected by false disclosures and securities fraud because their claims are, by definition, fixed by contract.¹²⁹ The conclusion is premised on four assumptions. First, the claims of nonshareholders are independent and well defined.¹³⁰ Second and relatedly, fixed claimants who make

125. See, e.g., Armen A. Alchian & Harold Demsetz, *Production, Information Costs, and Economic Organization*, 62 AM. ECON. REV. 777, 794 (1972); Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 305 (1976) (integrating "elements from the theory of agency, the theory of property rights and the theory of finance to develop a theory of the ownership structure of the firm").

126. See Macey, *supra* note 73, at 180.

127. See, e.g., Easterbrook & Fischel, *supra* note 59, at 635.

128. THAKOR, *supra* note 80, at 9 (suggesting that investors who held stock in the fraudulent firm during the fraud period were "undamaged" by the fraud). Relying on work by Jonathan Karpoff, Professor Arlen has made the point that shareholders in the fraudulent firm who did not trade during the fraud are not indifferent to accounting fraud. They are worse off than they would be absent fraud, and often much worse off, even if the firm never pays damages or fines. Even if fraud-tainted sales offset fraud-tainted purchases ex post, and shareholders have bought shares at a discount reflecting the systemic risk of securities fraud, shareholders would nonetheless prefer that fewer firms commit fraud. See Arlen, *supra* note 118, at 150-51.

129. See Fisch, *supra* note 27, at 658 (describing the neoclassical line of reasoning but pointing out that it rests on several contestable assumptions).

130. See Amir N. Licht, *The Maximands of Corporate Governance: A Theory of Values and*

firm-specific investments are compensated fully for those investments. Third, switching is frictionless and costless. And fourth, association with the fraudulent firm has no reputational effect on payoffs from future contracts.

The following Sections explain why and to what extent these assumptions hold true for two groups of fixed claimants: creditors and employees.

A. Intrafirm Cost: Theory

1. Creditors

Declining value of collateral is the primary risk for secured lenders and is often uncorrelated with the debtor's business prospects.¹³¹ Unsecured lenders, on the other hand, face two risks correlated with the debtor's performance: (1) that business will deteriorate, and (2) that the debtor will incur additional debt.¹³²

Banks and financial institutions use contracts to mitigate the risk of default. They demand a higher interest rate when the risk of business failure is higher, but the rate alone does not prevent the debtor from borrowing more afterwards.¹³³ Banks include loan covenants in the contract—for example, a leverage ratio ceiling—that allow the banks to declare default and demand immediate repayment if a covenant is violated.¹³⁴ To facilitate the exercise of their contractual rights, banks require the debtor firm to supply its financial statements periodically and to notify the bank of any

Cognitive Style, 29 DEL. J. CORP. L. 649, 652 (2004).

131. Some collateral is more vulnerable than other. The value of accounts receivable, for example, is correlated with a firm's business prospects, while the value of its equipment may be less so. See ERIC PRZYBYLINSKI & GREGORY J. LEONBERGER, MARQUETTE ASSOCS., SENIOR SECURED LOANS POSITION PAPER 2 (2011), available at http://www.marquetteassociates.com/portals/0/marquette_senior_secured_loans.pdf.

132. See COMPTROLLER OF THE CURRENCY ADM'R OF NAT'L BANKS, LOAN PORTFOLIO MANAGEMENT 3-11 (1998), available at <http://www.occ.gov/publications/publications-by-type/comptrollers-handbook/lpm.pdf> (discussing risks of lending).

133. Leveraged buyouts are an example of opportunistic borrowing. During the buyout, the firm borrows a massive amount of debt at a high interest rate but does not eliminate its prior debt that was priced for a firm that was much less risky.

134. See Rosemary Peavler, *Restrictive Bank Loan Covenants for Small Businesses*, ABOUT.COM BUS. FIN., <http://bizfinance.about.com/od/businessloans/qt/restrictive-bank-loan-covenants-small-businesses.htm> (last visited Mar. 26, 2013).

covenant violations.¹³⁵ If the debtor fails to do so, or if it misrepresents its financial position at the time of borrowing, it is liable to the bank for its failure. Like equity investors, banks diversify their firm-specific risk by lending to many different borrowers and by syndicating large loans.¹³⁶ They remain exposed to market risk of fraud, but demand a fraud premium as *ex ante* compensation.

Institutional creditors fit well with the nexus theory of fixed claimants.¹³⁷ However, credit risk is relevant in agreements other than the traditional bank loan. Trade creditors—suppliers and vendors—are exposed to the risk of default. Unlike banks and institutional lenders, trade creditors do not specialize in managing credit risk. They also cannot eliminate the risk of fraud as effectively as banks through diversification: they are exposed to the ups and downs of their industry. Finally, there are few economies of scale in monitoring counterparty credit risk. It is almost as costly for a supplier holding a \$100,000 account receivable to monitor the buyer as it is for a lender with a \$10 million loan.

Instead of detailed contracts, trade creditors reduce the risk by relying more heavily on exit. If possible, they diversify their customer base. They deliver supplies in batches, requiring payment periodically and frequently. If the buyer does not pay, a supplier will stop supplying the materials. A misrepresentation of the firm's performance impedes accurate assessment of the firm's credit worthiness and its liquidation value.¹³⁸ But the amount at risk is relatively small, assuming that a supplier can easily and cheaply replace lost business from the fraudulent firm. A supplier's exposure and thus the cost are greater when it *has* made a substantial firm-specific investment. In those industries, we should expect vertical integration as a rational response.¹³⁹

135. See *Beginners' Guide to Financial Statements*, U.S. SEC. & EXCHANGE COMMISSION, <http://www.sec.gov/investor/pubs/begfinstmtguide.htm> (last visited Mar. 26, 2013) (describing financial statements).

136. See PRZYBYLINSKI & LEONBERGER, *supra* note 131, at 2.

137. But, as Professor Coffee has noted, there are many ways for managers to increase risk that real-life contracts cannot control. Coffee, *supra* note 13, at 69.

138. See Dragon Yongjun Tang et al., *Creditors' Expected Recovery and Internal Control Quality: Evidence from Credit Default Swaps 1* (Mar. 2012) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2023112/.

139. See Benjamin Klein, *Fisher-General Motors and the Nature of the Firm*, 43 J.L. & ECON. 105, 105 (2000).

2. *Employees*

Valuation methods for financial investments are equally useful to assess the value of employees' human capital investment. The value of human capital is then the net present value of future income streams from work. In a perfectly competitive labor market, where employees have made no firm-specific investments, salaries across firms are driven to their competitive floor. If employees can switch jobs quickly and at no cost, if none of their pay has been deferred, if working for a fraudulent firm does not impair their earning potential, and if the existence of misreporting has no impact on overall economic growth and employment levels, employees are indifferent to securities fraud in any firm: the value of their human capital is unaffected.

But all these assumptions must be relaxed, and that has a profound impact on the cost of financial misreporting to employees. First, employees are often their employer's creditors because they are promised contingent or deferred compensation. Contingent compensation, such as a year-end bonus, is usually conditioned on the employee's own *and* the firm's performance. When the firm does poorly, it might pay no bonuses, even to its most productive employees. Deferred compensation, such as a company pension or severance, is at risk if the firm performs poorly. Employees thus require accurate information about their employer's prospects to price the risk and decide when it is efficient to find a new job.

Second, many jobs require employees to develop firm-specific skills, including good working relationships with coworkers, that are lost if the employee is terminated.¹⁴⁰ Evidence reproduced below suggests that discovered fraud shrinks employment relative to honest financial disclosure.¹⁴¹

Third, labor is comparatively much more specialized than capital and less liquid. Specialized, or nonhomogenous, markets have fewer

140. See Benjamin Klein et al., *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297, 302-03 (1978) (promoting vertical integration of human capital). Employees who develop firm-specific skills are usually paid a quasi rent for making the investment, but the payment is deferred and paid either as a higher salary or as severance.

141. Unmasking fraud and subsequent litigation are costly, and firms pass on the cost to employees.

buyers, and so it necessarily takes an employee longer to find acceptable substitute employment than it takes a shareholder to cash out.¹⁴² Quick terminations that usually follow revelations of accounting fraud lead to periods of unemployment or force employees into accepting lower-paying jobs—costs employees could have avoided if they had warning of the firm’s declining business prospects. The cost of exit increases if employees have made personal decisions in reliance on retaining the job, like buying a house.¹⁴³

Accounting fraud also harms employees’ reputations, and not just those of fraudsters. At least anecdotally, even innocent employees of Enron and Arthur Andersen, Enron’s auditor, reported being “mocked, criticized, and not trusted,” in addition to being unemployed.¹⁴⁴

Finally, and most importantly, employees cannot diversify away the firm-specific risk of failure or fraud. For most workers, human capital constitutes a large percentage of their wealth, so the loss is substantial, even if the displacement is only temporary.¹⁴⁵

There is little reason to believe that workers can use contracts to effectively protect against firm failure and/or fraud, for structural and informational reasons.¹⁴⁶ Employers do not know whether the employee is likely to be productive at the time of hiring.¹⁴⁷ They rationally screen for “difficult” employees, including those who might try to negotiate too hard. Except for top executive employment contracts—and perhaps a few thousand tech guys in the

142. Kent Greenfield, *The Unjustified Absence of Federal Fraud Protection in the Labor Market*, 107 YALE L.J. 715, 749 (1997) (noting that the “exit option” for workers is much more costly than it is for capital). Charles Schwab charges individual investors \$8.95 for online trades. *Fees & Commissions*, CHARLES SCHWAB, http://www.schwab-global.com/public/schwab-gcb-en/what_we_offer/independent_investing/fees_and_commissions.html (last visited Mar. 26, 2013).

143. See Greenfield, *supra* note 142, at 719 (noting that companies seek such reliance).

144. Emuna Braverman, *Enron’s Collateral Damage*, AISH.COM (Nov. 16, 2002), <http://www.aish.com/ci/be/48881897.html>.

145. Daniel R. Fischel, *Labor Markets and Labor Law Compared with Capital Markets and Corporate Law*, 51 U. CHI. L. REV. 1061, 1067-68 (1984).

146. *But see* Stephen M. Bainbridge, *In Defense of the Shareholder Wealth Maximization Norm: A Reply to Professor Green*, 50 WASH. & LEE L. REV. 1423, 1443-44 (1993) (suggesting that employees can protect their interests either contractually or through regulatory pressure).

147. Interviews continue to be used in hiring, although they are poor predictors of subsequent employee performance.

Silicon Valley—there is little evidence that individual employees could negotiate contractual provisions other than perhaps pay.

Even if negotiation were more likely, informational asymmetries abound. It is nearly impossible for employees to verify at the time of hiring if the firm's managers are honest. In addition, at-will employment is entrenched in the American labor market, but most employees and employers act as if employment is long term.¹⁴⁸ But because the term of employment is open, employees have no redress for termination and cannot insure against it.¹⁴⁹ Accurate information about the expected payoff is crucial to decide when and whether to seek alternative employment. Fraud artificially reduces the discount rate and leads employees to overstate the value of continued employment with that firm. Collective bargaining could mitigate contracting problems, but unions "are in a period of historical weakness."¹⁵⁰

Instead, employees rely on exit. Accurate and timely information about the firm's performance and viability is crucial to assessing whether the expected risk-adjusted revenue stream from their current employer, minus the cost of exit, exceeds the opportunity cost, and whether and when the employee should start looking for a new job. Employees certainly rely on internal sources of information, including rumors and office gossip, to assess the firm's likely future performance, but anecdotal evidence suggests that they also rely on the firm's securities disclosures and the stock price itself.¹⁵¹ The larger the firm, the less complete and reliable are the internal sources of information—perhaps with the exception of the firm's top management and its internal audit group. Consequently, the firm's securities disclosures and communications by top management

148. Median employee tenure with a current employer in 2010 was 4.4 years. News Release, Bureau of Labor Statistics, U.S. Dep't of Labor, Employee Tenure in 2010 (Sept. 14, 2010), available at http://www.bls.gov/news.release/archives/tenure_09142010.pdf.

149. A lawsuit for discriminatory dismissal aside, employees with at-will employment contracts have no chance of prevailing against an employer for termination.

150. Greenfield, *supra* note 142, at 752. Only 6.9 percent of private sector workers were unionized in 2010. News Release, Bureau of Labor Statistics, U.S. Dep't of Labor, Union Members—2010, at 1 & tbl.3 (Jan. 21, 2011), http://www.bls.gov/news.release/archives/union2_01212011.pdf. Overall union membership has been on the decline since the Bureau of Labor Statistics started collecting information in 1983. *See id.* at 2.

151. *See, e.g.,* McLEAN & ELKIND, *supra* note 99, at 125 (noting that employees' elevators at Enron constantly displayed the current stock price).

become more useful for employees' own assessment of their likely returns from continued employment with the firm.

Concealing the firm's decline upends employees' ability to decide whether to quit, because fraud credibly conveys to employees that the firm is doing better than it really is.¹⁵² Dishonest managers are aware of the risk of flight and try to reassure their workers, just as they reassure providers of capital: they sell the lie to mask fraud and to prevent employee exodus.¹⁵³

When managers are caught manipulating their firm's earnings, the firm often unravels quickly—certainly more quickly than most business failures—exposing employees to sudden unemployment. If they knew the truth about the firm, employees would have looked for work sooner and avoided joblessness. Finally, when firms shed many employees simultaneously, that extra supply will depress wages, at least locally.¹⁵⁴

One might argue, as did Professor Ball, that fraud benefits employees because it delays business failure, assuming that failure was inevitable.¹⁵⁵ This is a contestable assumption and appears accurate for only a minority of firms.¹⁵⁶ But even if it were accurate, fraud only benefits employees if the difference between their salary at the fraudulent firm during delay and their opportunity cost—that is, an alternative job—exceeds the expected cost of fraud-induced delay and the reputational harm to the employee from fraud at its employer.¹⁵⁷ If fraud delays bankruptcy, management might squan-

152. See, e.g., Greenfield, *supra* note 142, at 739-40 (explaining the relationship between job security and pay). Of course, employees complicit in the scheme do not rely on the false financial picture of the firm's health.

153. See, e.g., Faith Stevelman Kahn, *Bombing Markets, Subverting the Rule of Law: Enron, Financial Fraud, and September 11, 2001*, 76 TUL. L. REV. 1579, 1596 (2002) ("Lay reassured employees about the positive financial prospects of the firm and even suggested that they would benefit from purchasing more Enron stock."); see also Greenfield, *supra* note 142, at 718-19, 721 & n.26 (recounting numerous stories of employer fraud, usually featuring managers who reassured workers that the firm was profitable to prevent flight, even though they planned to shut down the factory).

154. This assumes that employees cannot move costlessly, because they own their home or have kids in local schools, and that rivals cannot expand costlessly to take over laid-off workers.

155. Ball, *supra* note 74, at 297-98.

156. See discussion *supra* Part II.B.

157. For instance, assume that fraud delays bankruptcy by one year during which the employee earns \$80,000. During that time, the best alternative job would have paid \$70,000.

der more money that otherwise would have been available to pay severance. Delay might increase the odds of liquidation over reorganization and result in greater job losses overall. The job market might deteriorate in the interim, reducing the number and the desirability of alternative employment options, thereby increasing the period of joblessness and expected salary.¹⁵⁸ If the firm “implode[s] in a wave of accounting scandals,” employees’ reputations and their earning potential may be harmed.¹⁵⁹

If fraud remains hidden, employees of fraudulent firms might benefit. But hidden fraud harms employees as a class. Financial misreporting distorts the allocation of labor among firms: it increases the relative cost of labor for nonfraud firms, just as it increases their cost of capital and, on the margin, reduces hiring.¹⁶⁰

Fraud in the secondary market for securities misallocates shares among traders¹⁶¹ but does not misallocate capital between firms and does not distort funding for new projects.¹⁶² In contrast, the market for labor is a primary market. Fraud misallocates labor from a “higher-value use to a lower-value use [and thus] inflicts [a] dead-weight loss on society in every case.”¹⁶³ Overall, fewer workers are hired than would be in a world without accounting fraud, even though undetected fraud might benefit some workers.¹⁶⁴ Those who work can demand a fraud premium, but because human capital

When fraud is revealed, the employee loses her job, is unemployed for six months, finds another job that pays \$60,000 in another state, and incurs \$10,000 in moving expenses. Without fraud, the employee would have been fired at the beginning of the year and taken the \$70,000 job after six months of unemployment. In sum, the employee benefits \$10,000 during fraud, but loses \$15,000 after it is unmasked, a net loss of \$5,000 compared with the no-fraud scenario.

158. Accounting fraud is procyclical: it is more common during investment bubbles. See Tracy Yue Wang & Andrew Winton, *Competition and Corporate Fraud Waves* 21-22 (Apr. 2012) (unpublished manuscript), available at <http://ssrn.com/abstract=1783752>.

159. Letter from Sherron Watkins, Vice President of Corporate Dev. of Enron Corp., to Kenneth Lay, Chief Exec. Officer of Enron Corp. (Aug. 14, 2001), available at <http://news.findlaw.com/hdocs/docs/enron/empltr2lay82001.pdf>.

160. See Greenfield, *supra* note 142, at 743 (“[T]he cost of labor for the economy as a whole would rise because workers would have to be compensated for being subject to fraud by their employers.”).

161. See *id.* at 730 & n.67, 731.

162. That is, assuming no new debt or primary equity offerings.

163. Greenfield, *supra* note 142, at 749.

164. See, e.g., *id.* at 748-49.

cannot be diversified, those unable to find paid work are not compensated.

As a result, accounting fraud is costly for employees, who cannot reduce that risk through diversification. The discussion about the implications of financial misrepresentations on employees applies equally to suppliers, vendors, and customers that make firm-specific investments or operate in markets where changing contractual partners is particularly costly. Suppliers, vendors, or customers that are organized as firms might pass on the cost to their investors and employees, and perhaps down the chain—producing second- and third-order effects of financial misrepresentations.¹⁶⁵

3. Do Nonshareholders Care About Financial Disclosures?

One might argue that employees, for example, do not read and rely on financial disclosures. Even if they did, a public firm's disclosures are directed at the shareholders, not employees, so employee reliance is irrelevant. This Article offers four related responses.

First, the business community and some academic commentators seem to believe that public disclosures “are increasingly useless as sources of information.”¹⁶⁶ There is no empirical evidence that this is in fact true. Public disclosures, and in particular audited financial statements, are generally perceived as cheap to find, comprehensive, and reliable because they are audited and certified, and carry a nontrivial risk of liability if found to be false.¹⁶⁷

But even if audited financial statements were indeed irrelevant to investors, that fact would say little about whether they are relevant to a firm's employees, for example. Many employees have access to private information about their employers, but the information is often incomplete and unverified. The larger, more com-

165. Welfare economics recognizes the existence of second- and third-order effects as firms pass on the cost to their counterparties, workers, and customers, as customers cut back on or shift to cheaper substitutes. *See generally* HAL R. VARIAN, INTERMEDIATE MICROECONOMICS: A MODERN APPROACH 634-39 (8th ed. 2009) (offering an overview of social welfare functions, welfare maximization, and individualistic social welfare functions).

166. Jonathan Macey, *Deconstructing the Galleon Insider Trading Case*, WALL ST. J., Apr. 19, 2011, at A17.

167. *See* Sadka, *supra* note 8, at 447 (discussing economic consequences of accounting fraud and noting that “enforcement makes financial statements credible”).

plex, and more diversified the firm, the less useful is employees' private information about their employer. It is rational for employees to rely on publicly disclosed information unless they believe their private information is more accurate—for example, when they are involved in or aware of the fraudulent scheme.¹⁶⁸ Most public firms are sufficiently large that the vast majority of their employees really do not have access to the sort of internal information that would flag fraud.¹⁶⁹

Second, fraud begets more fraud. When a firm releases a false financial statement, its voluntary disclosures and its observable actions must be consistent with the false statement, or else fraud will be discovered.¹⁷⁰ Mass layoffs at a time that a firm is reporting exponentially growing revenues are suspicious, at the least.

Firms' managers recognize that employees read publicly disclosed information about the firm. For example, the auditor of Groupon, an online daily deal vendor, recently identified material weaknesses in the firm's internal controls, which usually signal more serious problems.¹⁷¹ Shortly after the disclosure, Groupon's CEO Andrew Mason addressed the firm's 11,000 employees in a town hall meeting to reassure them that the firm was taking steps to fix the problem.¹⁷² Surely, the rank-and-file employees were not only concerned about the value of their Groupon stock but also about their jobs.

168. The Arthur Andersen example, which is often used to argue against corporate criminal liability, is useful to illustrate the point. Most of the auditors working for Arthur Andersen had no idea that their firm was involved in the Enron fraud, yet all lost their jobs when the firm was indicted. See Elizabeth K. Ainslie, *Indicting Corporations Revisited: Lessons of the Arthur Andersen Prosecution*, 43 AM. CRIM. L. REV. 107, 107-09 (2006); cf. Stephen Morris & Hyun Song Shin, *Social Value of Public Information*, 92 AM. ECON. REV. 1521, 1522 (2002) (explaining that it is rational for individuals to rely on public information when it is more reliable, but that overreliance on public information in the presence of precise private information reduces social welfare).

169. See generally Morris & Shin, *supra* note 168, at 1524-33 (providing a mathematically theoretical analysis on the interplay between public and private information and social welfare).

170. Audited financial reporting and voluntary disclosure of managers' private information are complements and reinforce each other. See Ray Ball et al., *Audited Financial Reporting and Voluntary Disclosure as Complements: A Test of the Confirmation Hypothesis*, 53 J. ACCT. & ECON. 136, 136-37 (2012).

171. See Shira Ovide, *Groupon Must Avoid Taking "Stupid Risks," CEO Says*, WALL ST. J., Apr. 26, 2012, at B1.

172. See *id.*

Third, it is true that investors, creditors, and employees care about different information about the firm. Any information that moves the stock price is arguably relevant to investors. Banks and institutional creditors care about the risk of default and the liquidation value of their claims, but are largely indifferent to firm performance above a certain threshold.¹⁷³ Institutional creditors, for example, are very sensitive to a firm's systemic weaknesses in internal controls that affect the firm's overall control environment and financial reporting process, because they signal uncertainty about the firm's creditworthiness and liquidation value.¹⁷⁴ Creditors are substantially less concerned about improper accounting of individual transactions.¹⁷⁵

On the other hand, most employees, suppliers, and vendors have open-term contracts with the firm. As a result, they are sensitive to specific information that makes contract termination more likely, such as declining sales or revenues of particular divisions and mounting debt burden, but they also care about general risk that the firm will lay off people on a large scale and shrink production.¹⁷⁶ As a result, at-will employees are quite sensitive to information about the performance of the firm and its divisions, as well as the firm's debt burden.

And finally, one might contend that firms disclose their financial information to investors, and thus other market participants have no right to rely on it: their reliance is not justifiable in a legal sense.¹⁷⁷ That may be, but that is only an argument against private causes of action by employees, not against taking the total cost of financial statement fraud into account in public regulation and enforcement. Once relevant information is publicly disclosed, market participants will use it and rely on it. Moreover, it enhances social welfare when market participants rely on accurate disclosures

173. See Tang et al., *supra* note 138, at 24-28.

174. See *id.*

175. See *id.*

176. When faced with high debt payments, firms will cut costs by terminating employees before defaulting on a loan. See, e.g., Sam Dolnick, *Finances Plague Company Running Halfway Houses*, N.Y. TIMES, July 17, 2012, at A1 (reporting that a private halfway-house-operating firm maintained dangerously low staffing levels to avoid defaulting on its debt).

177. I would like to thank Professor George Geis of the University of Virginia School of Law for raising this objection.

and make better-informed investment decisions.¹⁷⁸ Conversely, their reliance on fraudulent financial disclosures reduces social welfare.¹⁷⁹ Even if the disclosing firm's employees have no legal right to sue for financial misrepresentations, the harms they suffer ought to be included in the calculation of the total harm that the false disclosure causes.

B. Intrafirm Cost: Evidence

No doubt, financial misrepresentations harm the firm's shareholders. Dozens of studies report average stock price declines ranging from 9 percent¹⁸⁰ to a high of 38 percent.¹⁸¹ But as the theoretical discussion above suggests, financial manipulation harms the firm's nonshareholder constituents also. Not surprisingly, the value of the firm's debt usually declines when fraud is revealed.¹⁸² Thus far underappreciated has been the harm to employees.

First, a couple of caveats are in order. Many of the studies reported in this Article focus on the effects of restatements issued between 1997 and 2002. It is possible that the period is not representative because the frequency of earnings manipulation was relatively high. Between 1988 and 2008, on average twenty-one firms per year faced an SEC enforcement action for securities fraud.¹⁸³ Between 1997 and 2002, the average was 53 percent higher, or thirty-two firms per year.¹⁸⁴ As a result, the findings reported below might not be representative of accounting fraud generally.

178. See Jeffrey Wurgler, *Financial Markets and the Allocation of Capital*, 58 J. FIN. ECON. 187, 207-09 (2000) (finding evidence that better-informed stock prices help managers and investors direct resources to growing industries); see also Robert M. Bushman & Abbie J. Smith, *Financial Accounting Information and Corporate Governance*, 32 J. ACCT. & ECON. 237, 304-05 (2001) (explaining that financial disclosures limit opportunities for managerial rent seeking).

179. See, e.g., Joseph Bower & Stuart Gilson, *The Social Cost of Fraud and Bankruptcy*, HARV. BUS. REV., Dec. 2003, at 20, 22; Sadka, *supra* note 8, at 458.

180. Patricia M. Dechow et al., *Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC*, 13 CONTEMP. ACCT. RES. 1, 27 (1996).

181. Karpoff et al., *supra* note 85, at 582.

182. See, e.g., Tang et al., *supra* note 138, at 8-9.

183. See, e.g., Goldman et al., *supra* note 15 (manuscript at 30 tbl.3).

184. See *id.*

In addition, a few of the studies discussed report effects of all restatements, not just restatements accompanied by an enforcement action or a lawsuit. An enforcement action is a strong signal of fraud, but a restatement without an enforcement action does not necessarily signal the absence of fraud. The SEC has historically used its limited budget to target smaller frauds and “the more obvious and spectacular cases of earnings manipulation.”¹⁸⁵

This warrants two further observations. First, social welfare losses accompany even entirely innocent misstatements, but fraudulent misrepresentations ought to produce greater losses.¹⁸⁶ If a misrepresentation is truly innocent, managers have no incentive to engage in costly masking strategies to avoid detection. An error might induce them to pursue an ill-informed business strategy but will not lead to investments specifically chosen to disguise fraud. In addition, if managers do not try to conceal errors, it is plausible that the errors will be detected and corrected sooner than fraudulent disclosures. Moreover, it is likely that honest managers will notice a discrepancy that is significant, suggesting that erroneous misstatements should be smaller than those that are fraudulent. Finally, if innocent errors are distributed normally, they should cancel each other out across firms—at least to some extent—with some overstating earnings and others understating earnings. As a result, measuring the effects of accounting fraud by looking at all restatements understates social welfare losses that each incident of fraud causes, assuming that at least some restatements are entirely innocent.¹⁸⁷

185. Dechow et al., *supra* note 180, at 2.

186. Reasons include: (1) if innocent, misstatements are likely to be corrected sooner because firms are not trying to avoid detection; (2) managers are less likely to take on highly risky projects hoping to hide fraud.

187. Not all restatements suggest fraud, and not all accounting frauds are followed by a restatement or an enforcement action. Using restatements alone overstates fraud, but using enforcement actions understates it. Professor Karpoff and his collaborators report that public enforcement actions accompany 40.2 percent of all restatements in their sample; they also note that many firms subject to an enforcement action do not survive long enough to file a restatement, and some simply ignore the SEC’s instruction to file a restatement. Karpoff et al., *supra* note 85, at 585 & n.9.

1. *The Cost of Fraud to Employees*

Few studies have attempted to study whether and how harmful accounting fraud is to the firm's employees and labor markets generally. Professors Kedia and Philippon estimated the real economic costs of financial misrepresentations to labor markets by examining a large sample of restating firms between January 1997 and June 2002, when about 10 percent of all listed firms restated their earnings at least once.¹⁸⁸ They found that restating firms hired and invested more than comparable firms during periods of suspicious accounting, reduced labor and borrowing, and sold capital assets after the restatement.¹⁸⁹ To maintain consistency between reported numbers and their business operations, restating firms mimicked firms that were growing as fast as the numbers would suggest.¹⁹⁰ The authors showed that overinvestment would not have been possible but for the financial misrepresentation.¹⁹¹

The implications of the Kedia and Philippon study are significant. Restating firms overhired and overinvested during the period of the misrepresentation and reduced both labor and investment thereafter. The subsequent decline was not offset by the earlier growth—it exceeded it and substantially exceeded the trends in the economy. While all nonfarm payrolls increased by 6.7 percent between 1997 and 1999 and then declined by 1.5 percent from 2000 to 2002, employment in restating firms increased by 500,000—25 percent—and then fell by 600,000.¹⁹²

More troubling is that industries marred by restatements lost jobs permanently, even where rivals were able to reclaim the restating firms' market shares—an expected boon for the shareholders. Instead of expanding their employment and investment to

188. See Kedia & Philippon, *supra* note 57, at 2172 (noting that theirs is the first article to study the “effect of earnings management on the allocation of resources”).

189. *Id.* at 2171, 2183, 2184 tbl.3 (finding that employment growth during the period of fraudulent reporting is 4.1 percent higher than in comparable nonfraud firms, and 4.4 percent lower in postrestatement periods; similarly with investments—4.4 percent higher during fraud and 5.6 percent lower thereafter).

190. *Id.* at 2185-87 (“[T]he magnitude of the earnings management and the degree of distortions in employment and investment are related, and ... it is unlikely that a similar dynamic of employment and investment could happen without earnings manipulation.”).

191. *Id.* at 2171.

192. *Id.* at 2193, 2194 fig.3.

compensate for the losses of restating firms, rivals also reported negative employment and investment growth, coupled with strong labor productivity growth, compared with nonrestating firms in more honest industries.¹⁹³ However, increased labor productivity was not offset by higher wages.¹⁹⁴

IV. FINANCIAL MISREPRESENTATIONS AND EXTERNAL COST

A. *The Cost of Fraud to Rivals: Theory*

1. *Economic Learning*

Securities laws require firms to disclose specific information about lines of business, the cost of sales, and market share, which is useful to that firm's present and potential rivals. Unlike a stylized financial model where risk and expected returns of each project can be accurately calculated in advance, real-life managers do not know ex ante which business strategy is optimal, so they look to their rivals as gauges of what the market wants. Other firms' financial disclosures and annual reports are "excellent source document[s]" that mitigate uncertainty about industry-level demand and costs, and help firms in the same industry make strategic decisions and distinguish good projects from bad ones.¹⁹⁵ They are also cheap—certainly cheaper than industrial espionage—comprehensive, and

193. In other words, nonrestating firms increase their sales per employee—that is, claim some of the restating firms' market share—but do not hire any new employees. *See id.* at 2195, 2197.

194. *See id.* at 2195.

195. Durnev & Mangen, *supra* note 15, at 680-81 (citing Phillip Moon & Ken Bates, *Core Analysis in Strategic Performance Appraisal*, 4 MGMT. ACCT. RES. 139, 140 (1993)); *see* Bushman & Smith, *supra* note 178, at 293-94. A number of studies suggest that firms copy more than just their peers' business strategy. Phillip G. Berger & Rebecca Hann, *Segment Disclosures, Proprietary Costs, and the Market for Corporate Control* 30 (Dec. 2002) (unpublished manuscript), available at <http://ssrn.com/abstract=357780> (finding evidence that competitors cannot learn proprietary information about segment profitability unless it is disclosed). Firms mimic their rivals' restatement choices, with some industries preferring the more transparent restatement preceded by a Form 8-K filing, and others "restating under the radar." *See* Linda A. Myers et al., *Restating Under the Radar? Determinants of Restatement Disclosure Choices and the Related Market Reactions* 3-4, 21 (Sept. 2011) (unpublished manuscript), available at <http://ssrn.com/abstract=1309786> (citing to a half dozen studies).

relatively reliable, because they are audited and certified, and carry a nontrivial risk of liability if found to be false.¹⁹⁶

If the market appears to reward particular strategies reported in financial disclosures, rivals will mimic what they perceive to be the best performer. If a line of business appears to be profitable, other firms might be attracted to enter the same market. While mandatory disclosure will reduce monopolistic profit margins and thus harm disclosing firms, it plays an important role in technology development, which is critical to growth.

Significant misreporting, particularly of “core accounts, such as sales, market share, and costs,”¹⁹⁷ impairs rivals’ ability to discern the value of new business strategies and other market participants’ ability to understand the markets in which they operate.¹⁹⁸ As a result of a misrepresentation, an entire industry might overinvest, overborrow, and overhire.¹⁹⁹

2. *Distorted Competition*

Fraudulent firms often adopt inefficient pricing or output to mask fraud, to which their rivals respond. Unless the fraudulent firm operates a monopoly without complements or substitutes, its pricing or quantity decisions—distorted to correspond with fraudulent financial reporting—distort product markets.²⁰⁰ Professor Gil Sadka found that while WorldCom was misreporting its financials, it charged low prices and increased its market share.²⁰¹ Its competitors, Sprint and AT&T, responded by cutting their prices and saw

196. See J. Gregory Sidak, *The Failure of Good Intentions: The WorldCom Fraud and the Collapse of American Telecommunications After Deregulation*, 20 YALE J. ON REG. 207, 209-10 (2003) (arguing that because WorldCom’s reporting about the growth of its business was subject to regulatory oversight, “it was reasonable for rival carriers to believe WorldCom’s misrepresentation”).

197. Durnev & Mangen, *supra* note 15, at 681.

198. Brown & Angus, *supra* note 104, at 4. See generally Nelson & Winter, *supra* note 104, at 23-24 (explaining evolutionary economics and comparing it with neoclassical assumptions).

199. See Brown & Angus, *supra* note 104, at 4-5 (describing the process of learning and economic growth). For example, WorldCom and the telecommunications industry significantly overinvested in long-distance capacity and Internet-cable capacity as a result of WorldCom’s false reports about Internet traffic. See Sidak, *supra* note 196, at 228-31.

200. Sadka, *supra* note 8, at 441, 443.

201. *Id.* at 455-56.

a substantial decline in their operating margins.²⁰² Professors Bower and Gilson estimate that if WorldCom had set prices according to its real earnings, the industry could have generated an additional \$40 billion in profit.²⁰³ Consumers might benefit from product market distortions in the short term, but if fraud bankrupts an entire industry, consumers are harmed in the long run, especially if the goods are durable.²⁰⁴

Alternately, fraud might “work” and allow the firm to cement a dominant position in the industry. Waste Management, a company that “fostered a culture of fraudulent accounting,” was charged with fraud not once, but twice.²⁰⁵ Yet it survived relatively unscathed and today dominates the market for solid waste removal, often charging monopolistic prices for its services—great for its shareholders, less so for consumers.

Professor Patricia Dechow and her collaborators confirmed empirically that fraudulent firms generally increased their scale during fraud.²⁰⁶ But the size of the increase depended on the competitiveness of the industry. Fraud can substantially distort noncompetitive product markets and produce billions of dollars in deadweight losses, as WorldCom and its impact on the telecommunications industry demonstrate.²⁰⁷ In truly competitive markets where price is set by marginal cost, managers cannot as easily expand their firm’s market share either by lowering prices or increasing sales. If they do, they will quickly bankrupt the firm and fraud will be exposed.

Product market competition thus affects the size of the distortion from fraud, but not its existence: one firm’s change in price or

202. *Id.* at 457.

203. Bower & Gilson, *supra* note 179, at 20.

204. Sadka, *supra* note 8, at 442 & n.4. For example, when American carmakers were near bankruptcy during the 2008-09 financial crisis, consumers were wary of buying GM cars for fear they would not be covered by the warranty. To allay their concerns, the federal government guaranteed their warranty claims. See *Government to Guarantee GM, Chrysler Warranties*, U.S. NEWS (Mar. 30, 2009, 11:26 AM), <http://usnews.rankingsandreviews.com/cars-trucks/daily-news/090330-Government-to-Guarantee-GM-Chrysler-Warranties>.

205. Press Release, U.S. Sec. & Exch. Comm’n, Waste Management Founder, Five Other Former Top Officers Sued for Massive Fraud (Mar. 26, 2002), *available at* <http://www.sec.gov/news/headlines/wastemgmt6.htm>.

206. Dechow et al., *supra* note 91, at 20.

207. Sadka, *supra* note 8, at 461 tbl.2, 463.

output will always shift the equilibrium and affect the prices or output of other firms' products.²⁰⁸

3. Contagion

Assuming that fraud is an idiosyncratic event, rivals should, in theory, benefit, not lose, from its unmasking. Discovery of accounting fraud is costly for the firm, and so its rivals could use the opportunity to grab that firm's market share, which should increase their stock price and employment.²⁰⁹

On the other hand, providers of capital do not know if rivals of the fraudulent firm are misreporting also, so they demand higher risk premiums or sell their stock in rival firms, which depresses their stock prices. In the accounting literature, the negative effect of discovering accounting fraud in one firm on equity prices of rival firms is called contagion. Two factors cause contagion: investor concerns about rivals' accounting quality, and the expected higher cost for new capital.²¹⁰

In addition to contagion, unmasking of fraud discloses that the prospects of a particular industry are less rosy than previously believed. In response, firms in that industry reevaluate their expected returns from existing investment and reduce current investment, thereby reducing their demand for labor and capital. Lower expected returns are reflected in lower equity prices.

208. *Id.* at 441.

209. See Tan Xu et al., *Intra-Industry Effects of Earnings Restatements Due to Accounting Irregularities*, 33 J. BUS. FIN. & ACCT. 696, 697 (2006) ("An earnings restatement could have competitive effect because it could decrease the restating firm's competitiveness relative to its competitors."); see also Larry H.P. Lang & René M. Stulz, *Contagion and Competitive Intra-Industry Effects of Bankruptcy Announcements: An Empirical Analysis*, 32 J. FIN. ECON. 45, 54 (1992) (finding that bankruptcies in concentrated industries tend to be positively correlated with rivals' stock prices).

210. See Xu et al., *supra* note 209, at 698 (explaining the causes and mechanics of the contagion effect).

B. The Cost of Fraud to Rivals: Evidence

1. Equity Market Externalities

False disclosures affect rivals in several ways. First, after the false disclosure is released but before its falsity is revealed, rivals both misinvest and face a relatively higher cost of capital as compared with the fraudulent firm. If investors are led to believe that the industry has good prospects, the cost of capital might decline for all industry firms, to some extent offsetting the cost of fraud to rivals but, *ceteris paribus*, increasing the cost to nonindustry firms. After the financial misrepresentation is corrected, rivals face contagion. In addition, rivals reduce their investment levels after a restatement because of changed opportunities for external financing, both equity and debt, and because they reassess the expected profitability of future projects.

Several studies find that a restatement, whether accompanied by an SEC or DOJ enforcement action or not, has a negative effect on stock prices of nonrestating firms in the same industry. Professors Gleason, Jenkins, and Johnson, who reviewed all restatements between 1997 and 2002, found that restating firms' stock prices declined on average by 19.8 percent around the announcement date,²¹¹ and their rivals' stock prices declined by a half percent.²¹² The effect on rivals of financial services firms was more pronounced: 1.5 percent.²¹³

Professors Durnev and Mangen looked at a similar sample and confirmed the findings of the Gleason study. They found that both the restating firms and their rivals experienced significantly negative abnormal returns around the announcement date—8.28 percent and 0.34 percent respectively.²¹⁴ But the aggregate loss to rivals and their shareholders was much greater than the harm to shareholders in the restating firm: in one case that they looked at, the restating

211. Christi A. Gleason et al., *The Contagion Effects of Accounting Restatements*, 83 ACCT. REV. 83, 91 (2008).

212. *Id.* at 93.

213. *Id.*

214. Durnev & Mangen, *supra* note 15, at 699.

firm lost \$141 million in market capitalization while its rivals lost \$581 million.²¹⁵

Professors Goldman, Stefanescu, and Peyer's study supplemented these findings. Looking only at restatements accompanied by an SEC enforcement action, the authors found that rivals' stock prices on average dropped by 0.54 percent around the date that fraud was unmasked.²¹⁶ Declines were more pronounced in competitive industries, while in the most concentrated industries, rivals' stock prices on average increased after discovery of fraud. In the aggregate, rivals in the most competitive industries lost almost four times what the restating firms lost: \$295 billion versus \$80 billion, measured by market capitalization.²¹⁷ Rivals in the most concentrated industries, however, gained \$0.69 billion, whereas the restating firms lost \$39 billion.²¹⁸

The authors argued that rivals in competitive industries are less able to capture the fraudulent firm's market share, both because there are many similarly situated firms vying for customers and because firms in competitive industries are resource constrained.²¹⁹ In addition, rivals in concentrated industries can use their product market power to pass along the costs of the shock to their customers, protecting their profits and their stock prices, while rivals in competitive industries cannot do so.²²⁰

While all studies found a correlation between a restatement and a stock price decline by rivals, they provided different explanations for that decline. Professor Gleason and her collaborators attributed the decline to two factors: contagion and learning. Not surprisingly, the authors found that the effect was more pronounced when the restating firm was relatively large and when restating and nonrestating firms used the same external auditor.²²¹ They also found that firms with high accruals—sales recorded before cash is re-

215. *Id.* The authors did not disaggregate how much of that loss was the result of shareholders' concerns about the firms' accounting and how much was the result of the expected changes in investment strategy.

216. See Goldman et al., *supra* note 15 (manuscript at 11).

217. *Id.* at 15.

218. *Id.*

219. See *id.* at 18.

220. Joel Peress, *Product Market Competition, Insider Trading, and Stock Market Efficiency*, 65 J. FIN. 1, 5 (2010).

221. Gleason et al., *supra* note 211, at 84.

ceived, also known as accounts receivable—suffered greater losses than those with relatively low accruals.²²²

Professor Gleason and her collaborators also found evidence that fraud interferes with economic learning: a restatement conveys new information about deteriorating industry conditions and suggests that the misrepresentation produced overinvestment by both the restating firm and the industry.²²³

Durnev and Mangen complemented Gleason and her collaborators' findings and showed that rivals significantly reduce their investments within three years after the restatement.²²⁴ They argued that rivals rely on their peers' financial statements in deciding whether and how much to invest. A restatement thus conveys new information—namely, that the rivals overinvested in reliance on the false financial statements issued by peers.²²⁵ Rivals reevaluate their expected return from existing investments and reduce current investment in response.²²⁶

Durnev and Mangen also found that restatements have a greater impact on rivals' investments when restating firms have a larger market share.²²⁷ The finding makes sense because there are fewer firms in more concentrated industries, so a misrepresentation by an industry leader is more likely to be relied on and copied.

In sum, while it is difficult to disaggregate the effect of contagion versus the revelation of investment choices, the studies suggest that both effects are at work.

2. Debt Market Externalities

In addition to contagion and investment reconsideration, false financial disclosures increase the cost of debt for fraudulent firms

222. *Id.* at 99. Accruals more accurately reflect the business prospects of a firm, but they are less reliable than measuring sales by cash flow because management can exercise more discretion in accounting for accruals.

223. *Id.* at 94.

224. Durnev & Mangen, *supra* note 15, at 697 (finding that competitors on average reduce investments by 5.6 percent in the year of the restatement, by 5.2 percent the following year, by 2.6 percent the year thereafter, and by 16.2 percent in the third year after the restatement).

225. *Id.* at 702-03.

226. *Id.* at 680-81.

227. *Id.* at 706.

and their rivals both before and after fraud is unmasked. No empirical studies to date have estimated the cost of the debt-market distortion during fraud. Assuming that the supply of capital is limited, fraud should distort the allocation of debt among firms. As fraudulent firms appear healthier than they really are, they can negotiate better borrowing terms than justified. Conversely, assuming that capital is scarce, honest firms should face relatively worse borrowing terms than they would absent fraud.²²⁸ In a competitive market, higher costs of capital translate into lower levels of investment by honest firms, depressing their employment and reducing their market share. Because fraudulent firms are riskier than they appear, the net cost of misallocated debt capital is positive.

Professors Files and Gurun studied what happens to the cost of debt for rivals, suppliers, and customers of fraudulent firms after a restatement. The authors reviewed loan terms of firms that borrowed within a year of a rival's restatement and found that lenders increased loan costs by five to nine basis points.²²⁹ They found similar effects when looking at loans to firms whose major suppliers or customers restated their earnings.²³⁰ In addition to demanding a higher interest rate, lenders were more likely to ask for collateral and impose more restrictive financial covenants.²³¹

The authors demonstrated that lenders overreact to misreporting within the industry and along the supply chain: lenders tighten lending standards on rival firms regardless of their accounting quality or overall economic health.²³² The authors argued that higher cost of borrowing is caused by contagion,²³³ but additional explanations are possible. First, a restatement is correlated with bankruptcy, which usually leads to only partial loan repayment. Banks face reserve requirements, and a default reduces their ability

228. Bar-Gill & Bebchuk, *supra* note 124, at 24.

229. Rebecca Files & Umit G. Gurun, *Lenders' Response to Restatements Along the Supply Chain* 20 (Oct. 1, 2011) (unpublished manuscript), *available at* <http://ssrn.com/abstract=1636862>.

230. *See id.* at 33 (reporting an increase in the interest rate spread by at least seven basis points).

231. *Id.* at 27-28.

232. *Id.* at 29.

233. *Id.* at 21-23.

to extend new credit. Assuming that the supply of capital is not unlimited, the price of credit must increase after a restatement even in the absence of contagion. Second, fraud reveals that the prospects of an industry are less rosy than previously believed, and thus rivals' and suppliers' risk profiles are worse, even if they never engaged in accounting improprieties themselves.

Professors Files and Gurun reported that lenders imposed relatively stricter postrestatement loan terms in competitive industries than in concentrated industries, measured by firms' relative market shares.²³⁴ The authors attributed it to two factors: the fact that it is more difficult for firms in competitive industries to capture the restating firm's market share, and contagion—the perception that firms in competitive industries are more likely to mimic accounting practices of their peers.²³⁵ But there is another possible explanation: firms in concentrated industries are able to pass the cost of business shocks, like a restatement or fraud, onto employees, suppliers, and customers, and thus protect their profits.²³⁶ Knowing that, lenders demand a lower risk premium.

C. The Cost of Fraud to the Government and Communities

Finally, fraud distorts government policy, reduces the tax base, produces unemployment, and harms communities. Government often bases policy decisions on required disclosures. Gregory Sidak argues that WorldCom's fraud distorted government policy, in addition to wreaking havoc on the firm's rivals.²³⁷ Quoting former FCC Chairman Michael K. Powell, Sidak notes that federal and state governments use disclosures to set regulatory fees, determine interstate access charges for telecommunications, set rates for unbundled services, evaluate whether the division of federal-state jurisdiction is proper, and perform many other activities.²³⁸

When fraud results in business exit or reduces profits and incomes, all levels of government suffer from reduced tax revenues

234. *Id.* at 21-22.

235. *Id.*

236. See discussion *infra* Part V.

237. See Sidak, *supra* note 196, at 236-37.

238. *Id.* at 236.

and increased demand for social spending. A large firm's failure or retrenchment causes disproportionate impacts on the community in which it is located. After Enron declared bankruptcy and several other local companies reported fraud, Houston, an otherwise prosperous and growing city, experienced a recession that was both longer and deeper than the national recession.²³⁹ Houston's unemployment rate is generally lower than the national average.²⁴⁰ The Houston economy is dependent on oil prices and rises and falls with the price of crude oil.²⁴¹ From 1999 to 2006, the price of crude oil tripled, and so Houston should have boomed.²⁴² Instead, Houston's unemployment increased in early 2002 (Enron declared bankruptcy in December 2001) and remained between 0.5 and 1 percent above the national average until late 2006.²⁴³

V. DETERMINANTS OF THE COST'S MAGNITUDE

Not all financial misrepresentations are created equal. Some firms are more likely to misrepresent their performance than others, and some financial misrepresentations are more harmful than others. This Part briefly explains what factors increase the likelihood that a firm will commit fraud. It then analyzes what elements determine the social welfare effects of each occurrence of fraud.

A. *The Likelihood of Fraud*

The observed prevalence of fraud produces a biased estimate of its actual prevalence, and there is evidence that many frauds go

239. See GREATER HOUS. P'SHIP, *THE ECONOMY AT A GLANCE: HOUSTON 1* (2011), available at <http://www.houston.org/pdf/research/eag.pdf> (discussing concerns about Houston's recession).

240. See *id.* at 10.

241. See *id.* at 4.

242. The price of crude oil went from—inflation adjusted—\$22.79 per barrel in 1999 to \$66.47 per barrel in 2006. *Historical Crude Oil Prices*, INFLATIONDATA.COM (June 14, 2012), http://inflationdata.com/inflation/inflation_rate/historical_oil_prices_table.asp.

243. See *Economic Development: Workforce*, GREATER HOUS. PARTNERSHIP, <http://www.houston.org/economic-development/facts-figures/workforce/index.aspx> (last visited Mar. 26, 2013).

undetected.²⁴⁴ Nevertheless, some observations are worth noting. Larger firms are more likely to face an SEC enforcement action for earnings manipulation: the largest 10 percent of firms by market capitalization accounted for 14.7 percent of SEC enforcement actions for fraud between 1982 and 2005, while the smallest decile featured in 5.1 percent of accounting and auditing enforcement releases (that is, SEC enforcement actions).²⁴⁵ Greater visibility and scrutiny might explain more detection among the larger firms, but their ability to afford the best auditors should mitigate against fraud in the first place.

Firms in growth industries, like computer software and hardware, retail and services, and those with substantial investments in intangible assets also are more likely to commit accounting fraud than firms in stable industries with substantial fixed assets, such as refining or utilities.²⁴⁶ Reported value of intangible assets depends to a greater extent on managers' judgment calls and thus is more easily manipulated. Firms with high P/E ratios, those seeking to raise new capital, and those whose managers' pay is closely linked to stock price performance relative to rivals' performance—that is, indexed stock options—also are more likely to misstate their financials.²⁴⁷

Finally, economists generally believe that product market competition should reduce the firms' proclivity for fraud because it reduces agency costs,²⁴⁸ but the relationship "is not as easy to

244. See Gerakos & Kovrijnykh, *supra* note 105, at 4 (finding that, on average, 17-20 percent of firms with sufficient data on COMPUSTAT exhibit significant earnings manipulation); see also Dyck et al., *supra* note 85, at 11 (suggesting that three out of four frauds avoid detection).

245. Dechow et al., *supra* note 91, at 32 tbl.2A.

246. *Id.* at 32 tbl.2B, 34.

247. See *id.* at 42; Wang & Winton, *supra* note 158, at 21-22. This observation casts doubt on Professor Bebchuk and Fried's proposal that stock options be indexed to better align managers' incentives with those of the shareholders. See LUCIAN BEBCHUK & JESSE FRIED, PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE COMPENSATION 141-42 (2004).

248. See K.J. Martijn Cremers et al., *Takeover Defenses and Competition: The Role of Stakeholders*, 5 J. EMPIRICAL LEGAL STUD. 791 (2008) (showing that protections from hostile takeovers reduce market value of firms in concentrated industries, but not of those in competitive industries, suggesting that product market competition disciplines management); Xavier Giroud & Holger M. Mueller, *Does Corporate Governance Matter in Competitive Industries?*, 95 J. FIN. ECON. 312 (2010) (reporting similar findings); cf. MILTON FRIEDMAN,

formalize as one might think.²⁴⁹ Professors Wang and Winton find evidence that there is a kernel of truth to the notion: firms in competitive industries during periods of normal growth are generally about half as likely as their peers in concentrated industries to commit fraud.²⁵⁰ The effect is most pronounced in those competitive industries in which financial statements are highly comparable: each firm's disclosure provides information about other firms' financial disclosures.²⁵¹ If a manager misrepresents the firm's earnings, outsiders can more easily detect that the disclosure is false by comparing it with disclosures of honest rivals.²⁵²

During periods of rapid growth, however, the propensity of oligopolies to commit fraud remains unchanged, whereas in competitive industries the likelihood of fraud quadruples as compared with its normal rate and exceeds that of firms in concentrated industries.²⁵³ Periods of growth eliminate the constraints that competitive product markets ordinarily impose. The combination of easy money and the need for external financing to increase capacity creates a powerful incentive to misrepresent financials.²⁵⁴ Misrepresentations that paint a rosier picture than true further spur overinvestment in capacity. The bust that inevitably follows exposes both the fraud and the overinvestment, leading to business failure and significant distortion in product markets as well as markets for labor and capital.²⁵⁵

ESSAYS IN POSITIVE ECONOMICS 15, 34-37, 180-81 (1953) (describing the common view but arguing against it).

249. Bengt R. Hölmstrom & Jean Tirole, *The Theory of the Firm*, in 1 HANDBOOK OF INDUSTRIAL ORGANIZATION 61, 97 (Richard Schmalensee & Robert D. Willig eds., 1989), cited in Karthik Balakrishnan & Daniel A. Cohen, Product Market Competition and Financial Accounting Misreporting 3 n.2 (Sept. 14, 2011) (unpublished manuscript), available at <http://ssrn.com/abstract=1927427>.

250. Wang & Winton, *supra* note 158, at 26.

251. Balakrishnan & Cohen, *supra* note 249, at 5, 12.

252. *Id.* at 3-4; see also Reese Darragh, *Diamond Foods Accounting Scandal Stems from Years of Bad Practices*, COMPLIANCE X (Mar. 20, 2012), <http://complianceX.com/diamond-foods-accounting-scandal-stems-from-years-of-bad-practices>.

253. See Wang & Winton, *supra* note 158, at 39 tbl.3.

254. See *id.* at 18.

255. The Internet and telecommunication booms are recent examples. An older example includes railroads: extensive miles of track were laid, including spurs to future towns not yet built, by firms in the railroad industry only to be followed by numerous bankruptcies in the late 1870s. *Railroads in the 1870s*, AMERICAN-RAILS.COM, <http://www.american-rails.com/railroads-in-the-1870s.html> (last visited Mar. 26, 2013). *The Chicago Sun Times* wrote

B. The Size of the Distortion from Fraud

Several factors affect the costliness of accounting fraud: (1) size, duration, and type of the misrepresentation; (2) characteristics of the fraudulent firm; and (3) characteristics of the markets in which the firm operates.

1. Fraud Characteristics

A number of studies suggest that duration affects the cost of the misrepresentation: the longer fraud remains undetected, the greater the distortion.²⁵⁶ Even though a single-period misrepresentation can inflate the stock price substantially, persistent misrepresentations distort economic decisions more.²⁵⁷ Making things worse, managers announce income-decreasing restatements of greater magnitude more slowly than they announce restatements of smaller magnitude or those that increase income.²⁵⁸

Professors Yu and Yu find evidence that firms' political spending also delays discovery of fraud. They report that fraud persists longer and is less likely to be detected if the firm lobbies than if it does not. Moreover, they find that firms spend more on lobbying while the fraud is ongoing, compared with both nonfraud lobbying peers and their own lobbying expenditures before fraud.²⁵⁹

The type of the misrepresentation matters also. Rivals, suppliers, and large customers are more likely to use and rely on a misstate-

in 1872 that wealth from the railroads "will so overflow our coffers with gold that our paupers will be millionaires." *Illinois Railroad Boom, 1865 to 1873*, E. ST. LOUIS ACTION RES. PROJECT, <http://www.eslarp.uiuc.edu/ibex/archive/vignettes/rrboom.htm> (last visited Mar. 26, 2013).

256. See Brown & Angus, *supra* note 104, at 28 (observing that persistent fraud is far more damaging than intermittent fraud); James J. Park, *Assessing the Materiality of Financial Misstatements*, 34 J. CORP. L. 513, 550 (2009) (using fundamental analysis to argue that persistent misstatements ought to be presumptively material).

257. Cf. William Kinney et al., *Earnings Surprise "Materiality" as Measured by Stock Returns*, 40 J. ACCT. RES. 1297, 1309-10 (2002) (finding that the consequences of missing an earnings target by one cent vary widely, depending on context).

258. Myers et al., *supra* note 195, at 25.

259. Frank Yu & Xiaoyun Yu, *Corporate Lobbying and Fraud Detection*, 46 J. FIN. & QUANTITATIVE ANALYSIS 1865, 1865-66, 1882, 1884 (2011) (finding that lobbying firms evade fraud detection 117 days longer and are 38 percent less likely to be detected by regulators, and that they spend 77 percent more on lobbying than honest firms and 29 percent more during fraud periods than during nonfraud periods).

ment of core accounts, such as revenues, sales, market share, and cost of goods sold, than on the firm's pension fund returns.²⁶⁰

The size of the misrepresentation, and not just its duration or type, increases the distortion, but the correlation is weaker. A quantitatively large financial misstatement can substantially inflate the value of the company and distort capital and labor market allocation, as well as the firm's product market decisions. The discovery of fraud immediately causes the stock price to fall substantially, lenders to accelerate their loans, and customers to flee, which might lead to insolvency.²⁶¹ The large size also suggests that management was aware of the misstatement, further increasing the capital-market penalty and causing a larger postfraud adjustment in business activities.²⁶²

2. Fraudulent Firm Characteristics

Firm size affects the cost of financial misrepresentations. Larger firms, like Enron and WorldCom, use more human and financial capital and produce a larger displacement in the aggregate.²⁶³ Rivals are more likely to rely on and copy dominant firms' behavior, including their accounting practices, than they are to copy smaller firms.²⁶⁴

3. Market Characteristics

The effect of competition in the markets for inputs and outputs on the cost of securities fraud is complicated. Product market competi-

260. See Dechow et al., *supra* note 91, at 19.

261. Park, *supra* note 256, at 553.

262. See *id.* at 554 (suggesting that when misstatements are large, it is more likely that management was aware of them, or at least should have been aware). The notion that large frauds are worse than small frauds produced the rule-like quantitative standard that a financial misstatement is immaterial unless it misrepresented net income by more than 5 percent. See Matthew J. Barrett, *The SEC and Accounting, in Part Through the Eyes of Pacioli*, 80 NOTRE DAME L. REV. 837, 874 (2005). That standard has since been replaced with a qualitative standard for materiality of a financial misstatement. SEC Staff Accounting Bulletin No. 99, 64 Fed. Reg. 45,150, 45,151-52 (Aug. 19, 1999).

263. Langevoort & Thompson, *supra* note 11, at 374-75.

264. See Gleason et al., *supra* note 211, at 103-04 (finding that competitors' stock prices decline significantly when the restating firm is large but show no effect when the restating firm is small); Wang & Winton, *supra* note 158, at 2.

tion generally reduces the likelihood that a firm's managers will commit fraud.²⁶⁵ Similarly, if committed, accounting fraud in concentrated industries is more likely to distort rivals' economic behavior.²⁶⁶ In markets with low barriers to entry, fraud encourages inefficient business entry.²⁶⁷ In addition, market concentration affects the size of the distortion from fraud as fraudulent firms change their pricing and output.

Empirical evidence suggests that rivals in concentrated markets are better able to capture the fraudulent firm's market share after it is caught, but that the product market itself often shrinks in the aftermath of accounting fraud.²⁶⁸ In contrast, demand for audit, legal, and consulting services often increases after financial scandals.

Relative market competition also affects who ultimately bears the cost of fraud. The conventional wisdom assumes that investors as residual owners bear the cost of securities fraud. But this conclusion holds only for firms in truly competitive industries and in truly competitive, perfectly informed, and frictionless markets for labor, capital, and products. In all other cases—the vast majority—fraudulent firms, their rivals, and suppliers are able to shield their profits and their stock prices and pass along the cost of business shocks from the more competitive financial markets to the relatively less competitive real markets for labor and product markets.²⁶⁹

Professor Joel Peress finds support for the relative competitiveness hypothesis in the product markets: firms use market power to pass on business shocks to customers and insulate profits.²⁷⁰

265. See Wang & Winton, *supra* note 158, at 39 tbl.3.

266. See Balakrishnan & Cohen, *supra* note 249, at 9.

267. *Id.*

268. A misrepresentation of sales figures, for example, causes firms in the industry to overestimate demand for their product and overinvest. Price competition below marginal cost further increases demand. The correction increases prices to at least marginal cost and reduces investment, thereby shrinking the product market.

269. Cf. Andrei Shleifer & Lawrence H. Summers, *Breach of Trust in Hostile Takeovers*, in *CORPORATE TAKEOVERS: CAUSES AND CONSEQUENCES* 33, 34 (Alan J. Auerbach ed., 1988) (observing that firms can transfer rents from employees to shareholders).

270. See Peress, *supra* note 220, at 4-5; see also Annie Gasparro, *Starbucks Bumps Up Prices*, *WALL ST. J.*, Jan. 4, 2012, at B2 (reporting that the firm's customers were less sensitive to price increases than its rivals and so the firm decided to raise prices of brewed coffee to offset higher costs caused by futures contracts for coffee—in other words, to shield investors from its market misjudgment by passing along the cost to its customers).

Profits and stock prices in concentrated industries are more stable than expected, while product prices fluctuate wildly. Kedia and Philippon show that fraudulent firms and their rivals shift some of the postdisclosure cost of fraud onto employees.²⁷¹ After discovery of fraud, rivals capture the fraudulent firm's market share but do not increase employment.²⁷² Files and Gurun suggest that the lack of product market competition enables borrowers to negotiate better terms than their peers in more competitive industries in the aftermath of fraud,²⁷³ presumably because they can pass the cost on to their customers or employees.

4. Summary

Accounting fraud at WorldCom was a perfect storm of factors that increased its economic destructiveness. The firm was very large, with a market capitalization of \$186 billion at its peak.²⁷⁴ It misrepresented salient information used to evaluate its and its rivals' performances; it capitalized current expenses and reported line costs far below its rivals, who were hard pressed to compete.²⁷⁵ The misrepresentation was substantial, over \$12 billion, and went on for a while.²⁷⁶ Finally, WorldCom operated in a highly concentrated and regulated telecommunications market.²⁷⁷ Its falsely reported actions were copied by rivals and adopted by the government in developing telecommunications policy.²⁷⁸ Smaller frauds of shorter duration by smaller firms in very competitive markets during normal times (that is, not bubbles) will inevitably cause losses that are more contained but no less painful for terminated employees, disappointed creditors, and contractual partners.

271. See Kedia & Philippon, *supra* note 57, at 2195, 2197.

272. *Id.* at 2197.

273. See Files & Gurun, *supra* note 229, at 21-22.

274. *Meet the Market's Biggest Losers*, CNNMONEY, http://money.cnn.com/galleries/2010/fortune/1002/gallery.biggest_losers.fortune/10.html (last visited Mar. 26, 2013).

275. BERESFORD ET AL., *supra* note 1, at 2.

276. Bower & Gilson, *supra* note 179, at 20.

277. See Romar & Calkins, *supra* note 3, at 1-3 (outlining the effect on the industry).

278. See Sidak, *supra* note 196, at 236-37.

VI. IMPLICATIONS AND SOLUTIONS

A. *Implications*

Financial misrepresentations generate costs above and beyond those suffered by shareholders of fraud-committing firms because they (1) induce socially wasteful investments by creditors, employees, and other stakeholders—such as vendors and suppliers—while fraud is ongoing; (2) distort the fraudulent firm's decisions as managers try to mask fraud; (3) interfere with rivals' ability to learn from the fraudulent firm's disclosures; and (4) produce contagion after fraud is revealed as well as a costly adjustment by shareholders and nonshareholder constituents to new information.

Combined, these four outcomes lead to several tentative conclusions for fraud regulation and enforcement. First, false disclosures cause intrafirm harms to shareholders and nonshareholder constituents, as well as external harms to rivals, other firms competing for scarce labor and capital, and their constituents.²⁷⁹ Diffuse harms suggest that no single private party, or class of private parties, has optimal incentives to cause managers to internalize the cost of fraud: not investors,²⁸⁰ not exchanges,²⁸¹ and not analysts and others who trade on information they have gathered.²⁸² Diffuse costs also suggest that there are real limits to corporate self-

279. See BEASLEY ET AL., *supra* note 54, at 1; Bower & Gilson, *supra* note 179, at 20.

280. See Larry E. Ribstein, *Market vs. Regulatory Responses to Corporate Fraud: A Critique of the Sarbanes-Oxley Act of 2002*, 28 J. CORP. L. 1, 55 (2002) (arguing against public regulation of accounting fraud because shareholders, in particular institutional investors, can press for changes in governance both by direct communication with managers and by making shareholder proposals); see also Joseph W. Yockey, *On the Role and Regulation of Private Negotiations in Governance*, 61 S.C. L. REV. 171, 205-13 (2009) (arguing that Regulation FD impedes direct negotiation between shareholders and managers). For a less optimistic view of shareholder negotiations with management, see Urska Velikonja, *Negotiating Executive Compensation in Lieu of Regulation*, 25 OHIO ST. J. ON DISP. RESOL. 621, 625-26 (2010).

281. See Paul G. Mahoney, *The Exchange as Regulator*, 83 VA. L. REV. 1453, 1455 (1997) (arguing that the benefits of regulatory competition would best be achieved by devolving more authority to securities exchanges); Pritchard, *supra* note 94, at 928-29 (arguing that exchanges could enforce antifraud rules at lower cost than private litigation or securities regulators).

282. See, e.g., Zohar Goshen & Gideon Parchomovsky, *The Essential Role of Securities Regulation*, 55 DUKE L.J. 711, 714 (2006).

governance, where managers are expected to maximize *shareholder* wealth, to prevent fraud efficiently.

Second, shareholders may be the theoretical residual owners, but because of diversification and the fraud discount, their exposure to securities fraud is quite limited. Employees and trade creditors, on the other hand, face significant risk of securities fraud, particularly in concentrated industries, during investment booms or “bubbles,” in industries in which they make substantial firm-specific investments, and in industries in which exit is costly.

Third, for every fraud that is caught, there are many that remain hidden. Although financial markets are indifferent to hidden fraud to the extent that its general level remains the same over time, firms and individuals in the real economy are not. Managers rely on financial disclosures of other firms to develop their business strategies. When other firms’ disclosures are false, managers of honest firms make misguided investments. They pay more for capital and labor than their fraudulent peers. That cost is borne to some extent by providers of capital, but also by managers and employees of honest firms. Under current law, they are not compensated for their injuries even when frauds are exposed, let alone for those that remain hidden.

Employees, trade creditors, and rival firms could, in general, rely less on their firm’s or their peers’ financial disclosures—a costly proposition as reliable information about the business environment is costly to obtain—particularly when those disclosures appear too good to be true. But that is exactly the problem with accounting fraud. If it is to work, it must be convincing. The best frauds were “successful” precisely because managers were able to fool the many markets in which the firms operated that their statements were truthful. The firm’s contracting parties may want to believe the information that is being disclosed because of their optimism bias. Even if rivals did doubt a fraudulent firm’s numbers, their own shareholders and market analysts might push them toward fudging their numbers.²⁸³

283. In an environment with low enforcement and high rewards for fraud, all competitors may find it optimal to commit fraud, even though the market overall would be better off if no one committed fraud. See Ing-Haw Cheng, *Corporate Governance Spillovers 1* (Apr. 10, 2011) (unpublished manuscript), available at <http://ssrn.com/abstract=1299652> (observing that

B. Solutions

Many of the existing mechanisms designed to protect investors by increasing transparency and reducing the incentive to commit fraud, including audit committee independence, audit partner rotation, and SEC enforcement actions, also reduce the cost of fraud to nonshareholders.

A common theme in the explanation for why fraud harms nonshareholders is that nonshareholders actually rely on fraudulent financial disclosures. Increasing the accuracy of disclosure without increasing the cost of compliance is one possible strategy. Reducing the incentive to commit fraud in the first place is another, either by sanctioning individual wrongdoers more frequently or by reducing the appetite for fraud by changing compensation practices. Finally, the Article singles out employees as a class of nonshareholders that is consistently harmed by fraud and particularly powerless to diversify that risk. The last Section in this Part thus considers the viability of two compensation mechanisms: private rights of action and an administrative victim compensation fund.

1. Making Disclosure Less Public

Disclosure has been the preferred regulatory tool of American securities lawmakers since the 1930s. In addition to providing information to investors, increased disclosure enhances competition, and hence static efficiency, by informing rivals of profit opportunities and leading to production levels more consistent with marginal cost pricing.²⁸⁴ Disclosure of relevant business information produces a positive externality to the disclosing firm's rivals, who learn about profitable business opportunities; its suppliers and customers, who can drive harder bargains; and its employees, who demand higher pay or leave.²⁸⁵

Firms provide disclosures for their present and future shareholders by filing their quarterly and annual reports with the SEC, which makes them *publicly* available through its online database

fraud at one firm can lead to increased misbehavior at other firms).

284. See Fox, *supra* note 36, at 1345-46.

285. See *id.*

EDGAR.²⁸⁶ If information were provided to current shareholders directly, as is the case with privately held firms, one might expect the external cost of fraud to be smaller, assuming all else is equal. Rivals would make economic decisions independently of their peers, and with fewer eyes looking, fraudulent managers might be under less pressure to manipulate earnings and to change hiring, investment, and pricing to conceal their fraud. Less scrutiny, however, would likely increase the prevalence of fraud. More fraud would, in turn, increase the cost of capital for all firms and depress overall economic growth.

2. Improving Disclosure by Improving Compliance

The current disclosure, audit, and compliance regime imposed on public firms is not cheap. The recently adopted JOBS Act is premised on the supposition that the cost of disclosure and compliance exceeds its benefit to investors, in particular for “smaller” newly public firms. The JOBS Act reduced disclosure and audit obligations for five years from the initial public offering for “emerging growth companies”—that is, companies with less than \$1 billion in annual revenues.²⁸⁷ But if the aggregate social cost of securities fraud by public firms is quite large, as this Article suggests, we should be willing to spend substantial resources to curb fraud, even at the cost of losing marginal firms to private markets.

Our public firms already spend substantial sums on compliance, but much of that is, as Professor Krawiec charmingly called it, “cosmetic.”²⁸⁸ If the same resources could be deployed more efficiently, better disclosure ought to reduce the incidence and the cost of accounting fraud. This Section briefly considers forensic audits and qui tam actions for securities fraud as tools to improve disclosure.

Since 2002, the Sarbanes-Oxley Act has required that audit committees select their firms’ auditor, but most firms retained the

286. *Filing & Forms*, U.S. SEC. & EXCHANGE COMMISSION, <http://www.sec.gov/edgar.shtml> (last visited Mar. 26, 2013).

287. Jumpstart Our Business Startups Act, Pub. L. No. 112-106, § 101, 126 Stat. 306, 307 (2012) (to be codified at 15 U.S.C. § 77b(a)(19)).

288. Kimberly D. Krawiec, *Cosmetic Compliance and the Failure of Negotiated Governance*, 81 WASH. U. L.Q. 487 (2003).

auditor they used before the Act was adopted.²⁸⁹ A firm changes its auditor only in the aftermath of scandal, whether its own or the auditor's. As a result, auditors know the managers that they audit, rely on the information that those managers provide, and tend to view the firm they audit as the "client," not the adversary.²⁹⁰ The symbiotic relationship at best dampens the auditor's appetite for suspicious questioning and at worst leads auditors to rubber-stamp fraud.²⁹¹

Severing the agency relationship between the firm that selects the auditor, provides the information, and pays for the audit ought to reduce the conflict of interest and improve audit quality.²⁹² Forensic audits are usually commissioned by courts or enforcement agencies during an investigation into accounting improprieties, such as during the Lehman Brothers bankruptcy. Although they are expensive and time consuming, they are also very effective.

For example, 10 percent of public firms could be randomly selected every year and required to undergo a forensic audit.²⁹³ Accounting fraud is both more common and more harmful to non-shareholders in concentrated industries, so those could be targeted more often. Alternately, a forensic audit could be ordered if red flags were raised, such as bankruptcy²⁹⁴ or certain accounting practices

289. See Floyd Norris, *Companies May Face Rule to Shift Audit Firms*, N.Y. TIMES, June 3, 2011, at B2 (reporting that firms and auditors have strongly resisted a rule that would require them to rotate audit firms every seven or ten years). Except, of course, for firms that used Arthur Andersen in 2001 and had to switch when the firm was indicted for destroying evidence of fraud in its audits of Enron.

290. See *id.*

291. A senior auditor with one of the "Big Four" firms suggested that all four let their largest clients get away with suspicious accounting for fear of losing their business. Interview with Anonymous, Manager, KPMG, in Annapolis, Md. (Apr. 27, 2012). For a more detailed investigation of auditing and auditors' incentives, see Brown, *supra* note 15.

292. Lawrence A. Cunningham, *Choosing Gatekeepers: The Financial Statement Insurance Alternative to Auditor Liability*, 52 UCLA L. REV. 413, 415 (2004) (proposing financial statement insurance); Joshua Ronen, *Corporate Audits and How to Fix Them*, 24 J. ECON. PERSP. 189, 189-90 (2010) (same).

293. Alm, Jackson, and McKee report that IRS tax audits deter tax noncompliance. James Alm et al., *The Effects of Communication Among Taxpayers on Compliance*, in IRS RESEARCH BULLETIN: PROCEEDINGS OF THE 2004 RESEARCH CONFERENCE 37, 37 (2005), available at <http://www.irs.gov/pub/irs-soi/04alm.pdf>. Forensic accounting audits, likewise, are expected to produce higher quality financial disclosures.

294. About one-third of firms charged with accounting fraud end in bankruptcy, and of the firms that file for bankruptcy, about a third are found to have committed fraud before filing.

that have been found to signal fraud, such as high and/or spiking accruals.²⁹⁵ The SEC might not have the resources to conduct many forensic audits, but the cost could be shifted to firms. To offset the cost to firms, other compliance requirements could be lifted, such as the controversial auditor attestation to management's assessment of the firm's internal controls under Sarbanes-Oxley Act's section 404, or even the mandatory annual audit by the firm's hired auditor.²⁹⁶

In addition, the SEC and judges could take into account aggregate social losses from fraud when choosing sanctions for fraudulent firms and their managers. The SEC declared in 2006 that it would consider "the extent of societal harm" when penalizing firms and managers for securities fraud,²⁹⁷ but it has yet to consider harm beyond that suffered by the shareholders. Similarly, the federal sentencing guidelines allow judges to take into consideration the total economic harm the offense caused,²⁹⁸ but the author is not aware of any judge who has looked beyond the shareholders. In addition, shifting the sanction onto managers ought to reduce the likelihood of fraud.²⁹⁹

Finally, in *Who Blows the Whistle on Corporate Fraud?*, Dyck, Morse, and Zingales found that employees discovered and reported 19 percent of all frauds, more than any other group, including

See supra note 111 and accompanying text. This suggests that courts reviewing bankruptcy petitions should routinely look for securities fraud. *But see* Kelli A. Alces, *Limiting the SEC's Role in Bankruptcy*, 18 AM. BANKR. INST. L. REV. 631, 631 (2010) (arguing that the SEC should not investigate and punish bankrupt firms).

295. BEASLEY ET AL., *supra* note 54, at 45 (noting that revenue fraud is consistently the most common variety of accounting fraud).

296. Section 404(b) of the Sarbanes-Oxley Act requires the public firm's auditor to attest to, and report on, management's assessment of its internal controls. Sarbanes-Oxley Act, Pub. L. No. 107-204, § 404(b), 116 Stat. 745, 789 (2002). The Dodd-Frank Act exempted small firms with less than \$75 million in equity—4700 public firms—from having to comply with section 404(b) because of the common perception that the cost of compliance exceeded the benefit to investors. Dodd-Frank Act, Pub. L. No. 111-203, § 989G(a), 124 Stat. 1376, 1948 (2010) (to be codified at 15 U.S.C. § 7262(c)); *see* 17 C.F.R. § 240.12b-2 (2011); *see also* Brown, *supra* note 15, at 194 (proposing an end to the mandatory audit).

297. Press Release, U.S. Sec. & Exch. Comm'n, Statement of the Securities and Exchange Commission Concerning Financial Penalties (Jan. 4, 2006), *available at* <http://www.sec.gov/news/press/2006-4.htm>.

298. U.S. SENTENCING GUIDELINES MANUAL § 2B1.1(b) (2011).

299. *See* Velikonja, *supra* note 25, at 1283-84.

financial regulators, auditors, and securities analysts.³⁰⁰ Employees blew the whistle even before the Sarbanes-Oxley Act protected them from retaliation, and before any monetary incentives were available.

The Dodd-Frank Act authorized monetary awards for whistleblowers whose tips lead to a successful SEC enforcement action.³⁰¹ While awards for whistleblowers do not prevent fraud per se, they might reduce its duration, at least on the margin. If employees are deterred from reporting fraud because they might never work again, compensation is a useful incentive. The awards under the Dodd-Frank Act are conditional on the SEC successfully pursuing the enforcement action and are limited to the SEC's discretion. A true *qui tam* action that would eliminate the SEC as the intermediary and allow employees to sue for fraud directly would strengthen employees' incentives and give them greater control over the process. Fraud duration is an important determinant of the cost of fraud to nonshareholders. It is reasonable to assume that, on the margin, employee *qui tam* actions would expose fraud sooner and thus decrease the social welfare losses. To reduce the likelihood of opportunistic private lawsuits, the employee could be required to report fraud to the SEC first and wait to see if the SEC takes up the case within a certain period of time. If it does not, the employee could pursue the case privately.

3. *Victim Compensation*

As this Article suggests, employees—as well as trade creditors, suppliers, vendors, customers, and their employees to the extent that firms externalize the cost—are among the victims of securities fraud who cannot diversify the risk of loss from fraud.³⁰² To the extent that firms shift some of the cost of fraud from shareholders to employees—by renegeing on implicit contracts not to fire, cutting

300. Alexander Dyck et al., *Who Blows the Whistle on Corporate Fraud?* 53 *tbl.2* (Ctr. for Research in Sec. Prices, Working Paper No. 618, 2007), available at <http://faculty.chicagobooth.edu/finance/papers/who%20blows%20the%20whistle.pdf>.

301. Dodd-Frank Act § 922(a), 124 Stat. at 1841 (2010) (to be codified at 15 U.S.C. § 78a). The SEC has since adopted rules implementing the statutory provision. See 17 C.F.R. §§ 240.21F-3, 249.1801 (providing for a reward when the enforcement action yields a monetary sanction of \$1,000,000 or more).

302. See *supra* Part III.

pay, or extracting more work for the same pay—it would make not only practical but also economic sense to require shareholders to internalize the cost of the firm’s activity.³⁰³ Requiring fraudulent firms and their managers to compensate all victims of fraud would seem to be the next rational step. This Subsection considers employee lawsuits and a compensation fund, administered by a public agency, as possible remedies.

a. Victim Lawsuits

Rallying against securities fraud class actions is a favorite pastime of securities law professors. Class actions are costly; they overcompensate shareholders, who can diversify away the cost of fraud, and fail to deter the dishonest managers because they never pay out of pocket.³⁰⁴ Fraud harms employees, on the other hand, because they stay with the fraudulent firm in reliance on the false picture of its prosperity. When the firm discloses fraud, they lose both their jobs and their financial investment in the firm through their retirement accounts or deferred compensation, costs that could have been avoided with accurate disclosure.

303. See discussion *supra* Part V.

304. See *e.g.*, Alexander, *supra* note 56, at 1509-11 (proposing that damages be replaced with fines); Arlen & Carney, *supra* note 70, at 720 (proposing that firm-level liability be eliminated); Baer, *supra* note 55, at 1035 (proposing that insurance replace private actions); Bratton & Wachter, *supra* note 93, at 69-70 (proposing that fraud-on-the-market class actions be abolished and the SEC step up its enforcement efforts); John C. Coffee, Jr., *Gatekeeper Failure and Reform: The Challenge of Fashioning Relevant Reforms*, 84 B.U. L. REV. 301, 349-53 (2004) (proposing shifting liability to auditors); John C. Coffee, Jr., *Reforming the Securities Class Action: An Essay on Deterrence and Its Implementation*, 106 COLUM. L. REV. 1534, 1582-84 (2006) (arguing that the SEC should exempt nontrading corporate issuers from liability so that plaintiffs would sue corporate insiders and gatekeepers instead); Alicia Davis Evans, *The Investor Compensation Fund*, 33 J. CORP. L. 223, 233 (2007) (proposing insurance in lieu of the class action); Donald C. Langevoort, *Capping Damages for Open-Market Securities Fraud*, 38 ARIZ. L. REV. 639, 641-42 (1996) (proposing capping damages in securities class actions); Frank Partnoy, *Barbarians at the Gatekeepers?: A Proposal for a Modified Strict Liability Regime*, 79 WASH. U. L.Q. 491, 540-46 (2001) (proposing strict liability on gatekeepers for misstatements and omissions); Pritchard, *supra* note 94, at 983 (proposing penalties instead of damages to be imposed by exchanges instead of individual plaintiffs); Amanda M. Rose, *Reforming Securities Litigation Reform: Restructuring the Relationship Between Public and Private Enforcement of Rule 10b-5*, 108 COLUM. L. REV. 1301, 1301 (2008) (proposing that the SEC screen securities class actions).

Without a federal cause of action like the shareholder class action, employees would have to rely on the common law cause of action for fraud.³⁰⁵ Courts have been extremely reluctant to allow employees to sue firms for common law fraud by managers.³⁰⁶ They have held either that the vague statements firms made about the firms' prospects were not enforceable promises that induced reliance—for example, “The plant is now profitable”—or were forward-looking statements on which legal reliance was unwarranted—for example, “We will not close the plant if it remains profitable.”³⁰⁷

Moreover, proving damages would pose severe evidentiary problems. The value of shareholders' residual claims can be determined with relative ease by looking at the stock price. But even in shareholder litigation, serious event studies are needed to suss out precisely what part of the stock price decline was caused by fraud and what is noise.³⁰⁸ Employment contracts are not tradeable and their value is not easily ascertainable, let alone any loss in the value of their human capital that results from fraud. Fraud causes employees to lose firm-specific investments. The value of that investment, and the extent to which employees have already been compensated, is difficult to calculate. Many managers commit fraud when firms are faltering. Employees cannot easily prove that their jobs would not have been among those eliminated in the face of poor firm performance. If employees refrained from job searches, it would be very difficult to find an alternative way to show their opportunity cost. They would also face the challenge of showing the cost of reputational harm and disaggregating it from noise in the labor market. Inevitably, firms would worry that if workers are compensated for joblessness, they will stop looking for work. The question arises whether employees' claims should receive priority in bankruptcy, similar to the shareholder settlements in WorldCom and Enron.

Finally, the fact-specific nature of these actions would likely make it cost prohibitive if brought individually; the cost of litigation would

305. See Greenfield, *supra* note 142, at 754 (discussing the lack of a federal remedy for defrauded employees).

306. See *id.* at 720.

307. *Id.* at 755.

308. See Bratton & Wachter, *supra* note 93, at 87-93 (discussing the difficulty in calculating shareholder losses).

exceed the loss to any individual employee. Additionally, the recent Supreme Court decision in *Wal-Mart Stores, Inc. v. Dukes* suggests that class certification would be difficult.³⁰⁹ The presumption of reliance in fraud-on-the-market cases used by public shareholders would not be available for employee claims. Employees would probably have to show actual reliance on particular false disclosures or statements, and the facts surrounding reliance would inevitably vary from employee to employee. Without commonality, a class action could not be certified.

The high cost of enforcement coupled with serious information problems suggests that a private right of action for employees might not be a cost-effective tool to reduce the incidence of fraud, even if legal obstacles could somehow be overcome.

b. Victim Compensation Fund

If private remedies are unlikely to succeed, public ones might do better. When pursuing fraudulent firms, the SEC does not need to show either reliance or damages, the barriers to private employee fraud actions. The SEC can impose civil fines against firms so long as the misrepresentation was material, was related to the sale of securities, and was made with scienter.³¹⁰ The Sarbanes-Oxley Act also authorized the SEC to distribute civil fines that it collects from fraudulent firms to the victims of fraud, and the SEC has distributed funds to defrauded shareholders in a number of high-profile cases.³¹¹

As this Article argues, the shareholders are not the only victims of fraud. A close reading of the securities acts and their legislative history suggests that the SEC could adopt a rule authorizing the creation of a fund to compensate all victims of fraud, including nonshareholders.

Section 308 of the Sarbanes-Oxley Act, entitled “Fair funds for investors,” authorizes the SEC to distribute civil penalties collected

309. 131 S. Ct. 2541, 2551, 2557 (2011) (requiring a “rigorous analysis” before a class may be certified).

310. See *supra* notes 37-47 and accompanying text.

311. Barbara Black, *Should the SEC Be a Collection Agency for Defrauded Investors?*, 63 BUS. LAW. 317, 317 (2008).

from securities violators to “the victims of such violation.”³¹² Elsewhere in the same section, the statute quite clearly limits its scope to “injured investors,”³¹³ but not in the provision that authorizes the SEC to distribute funds collected from fraudulent firms and individuals to the victims. At the least, the text of the Fair Funds Statute does not preclude the inclusion of employees among the victims of securities fraud.

The “words of the statute should be read in context, the statute’s place in the overall statutory scheme should be considered, and the problem Congress sought to solve should be taken into account.”³¹⁴ The broader statutory structure of securities regulation suggests that honest securities markets serve an important resource allocation function in the economy. The Exchange Act itself notes that fraud and manipulation “precipitate[,], intensif[y], and prolong[.]” “[n]ational emergencies, which produce widespread unemployment and ... affect the general welfare.”³¹⁵ Moreover, the Sarbanes-Oxley Act that adopted the Fair Funds Statute was motivated by “social and economic dislocation, not simply investor losses.”³¹⁶ It “refused shareholders any more governance power, either in terms of voting rights ... or private litigation”³¹⁷ and instead increased public firms’ public accountability.³¹⁸

In the light of the text of the Fair Funds Statute and the purpose of the Sarbanes-Oxley Act, as well as securities regulation more generally, section 308(a) could be said to be ambiguous under *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*³¹⁹ If so, a regulatory interpretation that includes employees among those harmed by securities fraud, and thus plausibly “the victims of such violation,”³²⁰ should pass constitutional muster. Just because a course of action may be constitutionally permissible does not

312. 15 U.S.C. § 7246(a) (2006).

313. *Id.* § 7246(c)(1)(A), (B).

314. *PDK Labs. Inc. v. DEA*, 362 F.3d 786, 796 (D.C. Cir. 2004) (internal quotation marks omitted).

315. 15 U.S.C. § 78b(4) (2006).

316. *Langevoort*, *supra* note 50, at 1828.

317. *Id.* at 1829.

318. *See id.* at 1828.

319. *See* 467 U.S. 837, 843 (1984) (recognizing that ambiguity arises when “Congress has not directly addressed the precise question at issue”).

320. 15 U.S.C. § 7246(a).

suggest that it should be taken, particularly when it is not likely that it would survive judicial scrutiny.³²¹

Alternately, the Article proposes that the SEC use its authority to distribute fair funds to shareholders sparingly. Unless shareholders bear the full cost of fraud, the SEC should convey fines to the Treasury.³²² Assuming that at least some employees displaced by securities fraud are eligible for unemployment and welfare benefits, shareholders of fraudulent firms ought to contribute to covering the Treasury's cost and thus internalize a greater share of the cost of fraud. The cost of capital should then more accurately reflect the social cost of fraud.

c. Eliminating Securities Fraud Class Actions

Few legal instruments have been criticized for as long and by as many different authors as the shareholder class action, and for good reason. Class actions are costly; they overcompensate shareholders, who can diversify away the cost of fraud, and fail to deter the wrongdoer managers, as they virtually never pay out of pocket.³²³ In a recent article, Professors Bill Bratton and Michael Wachter proposed eliminating private shareholder class actions in exchange for strengthened public enforcement.³²⁴ This Article supplies yet another reason in favor of getting rid of the shareholder class action: the cost and the distraction associated with litigation further harms the firm's employees, suppliers, and creditors.

321. In *Goldstein v. SEC*, the D.C. Circuit signaled that it considered the SEC's authority to interpret statutes to be very limited. 451 F.3d 873 (D.C. Cir. 2006) (invalidating the SEC's rule that provided that investors in hedge funds are "clients" of the hedge fund's investment adviser).

Even with statutory authorization, the D.C. Circuit might vacate a rule authorizing a victim compensation fund if the rule failed the cost-benefit analysis, as illustrated by *Business Roundtable v. SEC*, 643 F.3d 1144 (D.C. Cir. 2011). The D.C. Circuit panel struck down the rule, arguing that the costs to *investors* exceeded the benefits. Measuring the victim compensation fund rule by the same yardstick—the costs and the benefits to *investors*—would inevitably doom it.

322. Securities Exchange Act of 1934, 15 U.S.C. § 78(u)(d)(3)(C)(i) (2006) ("A [civil] penalty imposed under this section shall be payable into the Treasury of the United States, except as otherwise provided in [the fair funds] section.").

323. See *supra* note 304 and accompanying text.

324. Bratton & Wachter, *supra* note 93, at 69-70.

CONCLUSION

This Article makes and supports, theoretically and empirically, a set of controversial claims. First, shareholders are not the only group harmed by false securities disclosures. Second, shareholders are in the best position to limit their exposure to fraud in the secondary market. The firm's employees, suppliers, vendors, customers, and rivals cannot as easily self-insure against fraud.

If so, then much of the modern debate about whether the benefit of securities regulation to investors exceeds its cost is confused. The underappreciation of the economic cost of securities fraud has led to misguided legislative, enforcement, and policy choices, as well as unwarranted criticism of valuable changes, such as audit reforms ushered by the Sarbanes-Oxley Act. Hopefully, this Article can redirect the debate and policy making to a more complete understanding of the cost of fraud.