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EFFICIENT CAPITAL MARKETS, CORPORATE DISCLOSURE, AND ENRON

Jonathan R. Macey†

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INTRODUCTION

The market capitalization of Enron Corporation declined by \$63 billion in the one-year period between January 2001 and January 2002.¹ In practical terms, this means that someone who invested in Enron, Inc. for a comfortable retirement “nest egg” in 2001—say 3000 shares worth about \$250,000—would barely have enough money to buy a major home appliance a scant year later.² Ironically, Enron’s shares were thought prior to January 2001 to experience relatively low volatility.

The collapse of Enron dealt a stunning blow, not only to people’s wallets and a once-formidable U.S. corporation, but also to a number of conventional theories and core beliefs within the legal academy. The theories and beliefs challenged by the Enron debacle include the

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¹ See Gary Katz, *Enron*, CBC NEWS ONLINE, Feb. 2002, at <http://www.cbc.ca/news/features/enron.html>.

² See *id.*

following: (1) the U.S. corporate governance system is the best in the world; (2) the U.S. system of corporate disclosure is the best in the world; and (3) the U.S. capital markets, particularly the markets for large corporations such as those listed on the prestigious New York Stock Exchange (NYSE), are highly efficient.

Following a brief corporate history of Enron, Parts I, II, III, and IV of this Article discuss, in turn, what remains of each of these conventional academic theories in the wake of Enron's collapse. My principal conclusions are as follows: Initially, with respect to U.S. corporate governance, the collapse of Enron reveals the fundamental tradeoff between objective and proximate monitoring by corporate directors, auditors, rating agencies, analysts, and others.³ Second, the collapse of Enron demonstrates that disaster ensues when supposedly neutral and objective corporate monitors are "captured" by the firms they are supposed to monitor. Third, the U.S. system of corporate governance relies on these objective monitors more than other corporate governance systems, and is therefore more vulnerable when such monitors fail, as was the case with Enron. The downfall of Enron also illustrates both the importance of corporate governance to corporate performance, and the inherent susceptibility to corruption present in *any* system of corporate governance.

Further, from an international perspective, one is tempted to ask whether the Enron debacle could happen in Europe or Japan or whether it demonstrates a vulnerability unique to the U.S. system of corporate governance. I have three observations to make on this issue. First and foremost, the Enron fiasco demonstrates the acute pressure felt by U.S. corporate management to produce superior performance results. As discussed later in this Article, Enron's financial maneuvering, which led to the company's massive 2001 restatement of earnings, was prompted only in 1997 when Enron came under significant pressure from investors. Essentially, Enron's corporate performance was consistent for a considerable period of time prior to 1997.⁴ However, between 1996 and 1997, the firm's profits and return on equity each declined by ninety percent.⁵ The sudden deterioration in performance pressured management to engage in transactions that increased revenue and moved debt off of the firm's

³ This monitoring tradeoff is developed in more detail in my Article coauthored with Arnoud Boot, also presented in this Symposium. See Arnoud W.A. Boot & Jonathan R. Macey, *Monitoring Corporate Performance: The Role of Objectivity, Proximity, and Adaptability in Corporate Governance*, 89 CORNELL L. REV. 356, 357-60 (2004).

⁴ See Anthony H. Catanach, Jr. & Shelley Rhoades-Catanach, *Enron: A Financial Reporting Failure?*, 48 VILL. L. REV. 1057, 1058-60, tbls. 2, 3 (2003).

⁵ *Id.* at tbl. 3 (showing decline in profit margin ratio from 4.27% in 1996 to 0.43% in 1997 and in return on equity from 15.26% in 1996 to 1.57% in 1997).

balance sheet.⁶ This intense pressure on corporate management is unique to the U.S. system of corporate governance.

Second, outside the United States, management's incentives to succumb to the creative accounting gimmicks that Enron employed are significantly weaker. From an international perspective, Enron's collapse demonstrates the *strength* of the U.S. system of corporate governance, namely the intensely competitive environment in which U.S. management teams operate. In the vast majority of cases, this environment causes management to work extremely hard, producing superior results in response to increased pressure.

However, in rare cases like Enron, the "pressure-cooker" environment leads managers of U.S. corporations and their advisors to take shortcuts and mislead investors about corporate performance. Independent monitors are supposed to deal with these "rare cases" by identifying cheaters and publicly announcing their wrongdoings. One of the principal lessons to be gleaned from Enron's collapse is that the U.S. system for monitoring corporate management has itself become corrupt.

Third, the Enron catastrophe puts considerable pressure on the traditional law and economics model of corporate disclosure. According to this model, firms have strong incentives to disclose information in order to distinguish themselves from poorly performing rivals.⁷ Fear of negative sanctions prevents firms from misrepresenting their corporate performance.⁸ Part III of this Article considers these issues. It appears that, at least in some cases, the traditional law and economics model of corporate disclosure should be replaced by a prisoners' dilemma model, in which all firms have incentives to engage in minor cheating, in the hope that excessive cheating—which would cause investors to distrust the system—will not be the end result.

In Part IV of this Article, I consider Enron's implications for the Efficient Capital Markets Hypothesis (ECMH). The ECMH posits that share prices of publicly traded companies change quickly to reflect new information, such as changes in the financial condition of the company.⁹ In particular, the "semistrong" form of the ECMH posits that share prices react quickly to reflect publicly available informa-

⁶ Such financial alchemy began in 1997 with the establishment of special purpose entities. See WILLIAM C. POWERS, JR. ET AL., REPORT OF INVESTIGATION BY THE SPECIAL INVESTIGATIVE COMMITTEE OF THE BOARD OF DIRECTORS OF ENRON CORP. 36–40, at <http://news.findlaw.com/hdocs/docs/enron/sicreport/sicreport020102.pdf> (Feb. 1, 2002) [hereinafter POWERS REPORT].

⁷ See Frank H. Easterbrook & Daniel R. Fischel, *Mandatory Disclosure and the Protection of Investors*, 70 VA. L. REV. 669, 674 (1984).

⁸ See *id.* at 677.

⁹ See *Some Anomalous Evidence Regarding Market Efficiency*, 6 J. FIN. ECON. 95, 96–97 (1978) [hereinafter *Anomalous Evidence*].

tion.¹⁰ The collapse of Enron dealt a blow to the ECMH. Because Enron had massive amounts of debt loosely hidden under a complicated matrix of thousands of special purpose entities structured as partnerships and usually organized offshore, the market was unable to penetrate the “cloud cover” of these accounting gimmicks to uncover Enron’s true economic conditions.

Enron’s board of directors apparently knew of these entities for at least four years prior to the company’s collapse and, further, that the “aggressive” accounting techniques employed by Enron’s accounting firm helped bury these facts.¹¹ The semistrong form of the ECMH remains intact after Enron’s collapse only because public disclosures by Enron showed that the company was very strong. The special purpose entities hid Enron’s true financial condition so that the company’s books indicated that Enron was in far better shape than it truly was, and one would “have had to do an almost impossible inspection to know” the true financial condition of the company.¹²

Unfortunately, while the ECMH remains more or less intact after Enron as a theoretical academic construct, it is not obvious what *relevance*, if any, the theory still holds. Part IV of this Article details the exceedingly poor performance in the Enron case of the institutions and infrastructures that drive markets to function efficiently. Thus, another key lesson from the collapse of Enron is that improving traditional mechanisms of market efficiency provides a very effective way of reducing the probability that such debacles will occur in the future. In particular, improving market participants’ ability to short stock and to buy and sell single stock index futures will provide effective “early warning systems” to alert the public and regulators of companies riddled with financial fraud.

I

A BRIEF HISTORY OF ENRON CORPORATION

Enron Corporation was formed in 1985 as an interstate pipeline company when two utility companies, Houston Natural Gas and Omaha, Nebraska-based InterNorth merged, creating the first nationwide natural gas pipeline system in the United States.¹³ Kenneth Lay, former CEO of Houston Natural Gas, was named chairman and CEO of Enron.¹⁴ By 1989, Enron was the largest natural gas provider in the

¹⁰ See *id.* at 97.

¹¹ See Katz, *supra* note 1.

¹² *Id.*

¹³ See *Enron Milestones, July 1985*, at <http://www.enron.com/corp/pressroom/milestones/frameset.html> (last visited Dec. 20, 2003) [hereinafter *Milestones*].

¹⁴ *Enron Timeline*, HOUS. CHRON. ONLINE (Jan. 17, 2002), available at <http://www.chron.com/cs/CDA/story.hts/special/enron/1127125>.

United States and the United Kingdom¹⁵ By 1990, the corporation had expanded, trading natural gas, electricity, and other energy-related commodities and ranking as the seventh largest U.S. company in terms of revenue.¹⁶ Its employees overwhelmingly chose to invest their 401(k) retirement funds primarily in Enron's own stock, despite the fact that they had nineteen other investment options.¹⁷

Over the years, Enron opened several international offices and acquired several companies that further expanded its international presence.¹⁸ In 1993, Enron entered into an investment partnership with the California Employees Retirement System (CalPERS) named JEDI I, in which each entity invested \$250 million.¹⁹ In January 1997, Enron revealed its new logo and first global advertising campaign.²⁰ Later that year, after announcing a quarterly loss, Enron established so-called "Special Purpose Entities" (SPEs) for "hedging" purposes.²¹ Enron created Chewco, an SPE composed of Enron executives and undisclosed outsiders to buy out CalPERS' share of JEDI I. After selling its shares of JEDI I, CalPERS agreed to invest in another partnership with Enron, JEDI II, in which each invested \$500 million.²² Enron ultimately included these off-balance sheet entities on its balance sheet, resulting in huge writeoffs for the company.

Enron's expansion and acquisitions continued over the next several years. In June 1999, Andrew Fastow, former CFO of Enron, proposed the creation of two partnerships, LJM1 in June 1999 and LJM2 in October 1999.²³ As time went on, the number of unconsolidated partnerships increased.

In January 2000, Fortune Magazine named Enron "The Most Innovative Company in America" for the fifth consecutive year and ranked Enron 24th in a survey listing the 100 best companies to work

¹⁵ See *Milestones*, *supra* note 13.

¹⁶ Douglas M. Branson, *Enron—When All Systems Fail: Creative Destruction or Roadmap to Corporate Governance Reform?*, 48 VILL. L. REV. 989, 997–98 (describing Enron's corporate history).

¹⁷ See Katz, *supra* note 1 ("[Enron's] 401(k) fund . . . held great chunks of Enron shares, in fact over 60 per cent of the fund was made up of them. Though employees had 20 investment options to choose from for the fund, their own company, so obviously flourishing, was a clear favourite.").

¹⁸ *Enron Timeline*, *supra* note 14.

¹⁹ See Kathleen Pender, *CalPERS Had Enron Because Many Did*, S.F. CHRON., Dec. 9, 2001, at C1, available at <http://sfgate.com/cgi-bin/article.cgi?file=chronicle/archive/2001/12/09/BU208202.DTL>.

²⁰ See *id.* (explaining the basic financial details of CalPERS' investments in the two JEDI partnerships).

²¹ See POWERS REPORT, *supra* note 6, at 13–17.

²² See Pender, *supra* note 19.

²³ See POWERS REPORT, *supra* note 6, at 68–76. Fastow was to serve as both a general and limited partner for LJM1 and LJM2. See *id.* at 70–71, 74.

for in America.²⁴ By March, Enron was the sixth largest energy company in the world based on market capitalization according to the Energy Financial Group.²⁵ In February 2001, Jeffrey Skilling succeeded Lay as Enron's next CEO.²⁶

Although several news articles questioned the profitability of Enron as well as other energy companies over the next year, Enron was again named "The Most Innovative Company in America" in 2001 by Fortune Magazine for a sixth consecutive year.²⁷ Skilling resigned as CEO in August 2001, less than seven months after he began.²⁸ Wall Street increased its requests for a detailed report of Enron's financial performance, and the *Wall Street Journal* published a three-day series of articles on Enron's partnerships.²⁹

In October 2001, Enron reported its first quarterly loss since 1997, \$618 million, and a reduction in shareholder equity of over \$1 billion.³⁰ In November 2001, Enron announced that it had overstated its earnings back to 1997 by about \$600 million³¹ and, as a result, Enron share prices plunged to approximately four dollars from a high of more than ninety.³² By the end of November, Enron bonds were officially classifiable as junk bonds, and on December 2, Enron filed for protection from its creditors under Chapter 11 of the U.S. Bankruptcy Code.³³

II

ENRON AND U.S. CORPORATE GOVERNANCE

Monitoring is the central, defining feature of any system of corporate governance. Corporate monitors come in a variety of forms, including directors, auditors, credit rating agencies, stock market analysts, takeover firms, arbitrageurs, large shareholders, and outside

²⁴ See *Milestones*, *supra* note 13.

²⁵ See *id.*

²⁶ Bethany McLean, *Why Enron Went Bust*, FORTUNE, Dec. 24, 2001, at 58, 61.

²⁷ See *id.* (noting that Enron was "voted Most Innovative among FORTUNE's Most Admired Companies" and that by 2000 it was "the seventh-largest company on the FORTUNE 500").

²⁸ See *id.* at 66.

²⁹ See, e.g., John Emshwiller & Rebecca Smith, *Enron Jolt: Investments, Assets Generate Big Loss*, WALL ST. J., Oct. 17, 2001, at C1; Rebecca Smith & John R. Emshwiller, *Enron CFO's Partnership Had Millions in Profit*, WALL ST. J., Oct. 19, 2001, at C1; Rebecca Smith & John R. Emshwiller, *Partnership Spurs Enron Equity Cut*, WALL ST. J., Oct. 18, 2001, at C1.

³⁰ See Jathon Sapsford & Suzanne McGee, *Enron's Financial Troubles Reverberate to Bonds with Poor Liquidity and Credit-Rating Concerns*, WALL ST. J., Oct. 26, 2001, at C14.

³¹ See McLean, *supra* note 26, at 68.

³² See Rebecca Smith & Robin Sidel, *Enron and Dynegy May Cut Price of Deal by 40%*, WALL ST. J., Nov. 27, 2001, at A3; *Time Line: Enron* (Feb. 4, 2002), at <http://www.guardian.co.uk/print/0,3858,4342321-110384,00.html>.

³³ See McLean, *supra* note 26, at 68.

lenders.³⁴ One may even view customers and suppliers as monitors because of their ability to observe management quality and send effective signals to the market regarding management's performance.

Arnoud Boot and I have identified in a different article what we regard as a fundamental tradeoff encountered when evaluating the ability of a monitor to improve a corporate governance system: the tradeoff between *objectivity* and *proximity*.³⁵ We posit a model of corporate governance that captures this tradeoff, such that those designing corporate governance systems must *choose* a system that features one of these characteristics or the other, but not both.³⁶

Alternatively, we argue that certain corporate governance systems, such as the one in place in Italy, feature *neither* attribute, but have proven to be successful nonetheless.³⁷ Without either proximity or objectivity to guarantee the effective monitoring and discipline of management, investors will be reluctant to invest, and firms will be required to turn to internal sources of finance. Despite its obvious costs, such a system has hidden virtues. In particular, it provides strong incentives for managers to make the firm-specific human capital investments necessary to develop specialized skills.³⁸

A. Proximity

In systems of corporate governance similar to those that exist in Germany and the Netherlands, one often finds intimate, sustained, intensive, and finely textured monitoring of management, either by significant shareholders or by largely autonomous, entrenched boards of directors—supervisory boards—who enjoy close proximity to the firms they monitor.³⁹ Through their participation in decisionmaking and real-time supervision of management activity, these significant shareholders and supervisory boards inevitably become insiders and are frequently captured by the firms they are monitoring. Participation in the decisionmaking process not only requires readier access to information than that needed by outside monitors, such as takeover artists, arbitrageurs, credit rating agencies, and analysts, but also establishes the conditions by which incumbent management will likely capture the monitors. Capture occurs when the ostensible monitor loses its independence and adopts the perspective of the management team being supervised. The gradual resulting loss of the ability to evaluate

³⁴ See Boot & Macey, *supra* note 3, at 357.

³⁵ See *id.* at 357–60.

³⁶ *Id.* at 357.

³⁷ See *id.* at 385–88; Jonathan R. Macey, *Italian Corporate Governance: One American's Perspective*, 1998 COLUM. BUS. L. REV. 121, 140.

³⁸ See Macey, *supra* note 37, at 142–43.

³⁹ See Edward S. Adams, *Corporate Governance After Enron and Global Crossing: Comparative Lessons for Cross-National Improvement*, 78 IND. L.J. 723, 762–63 (2003).

the firms' performance in an objective manner mitigates the informational advantage that these insiders enjoy.⁴⁰

B. Objectivity

By contrast, far less monitoring comes from directors, large shareholders, or others in close proximity to the firm's managers in the United States' system of corporate governance. Rather, a variety of outside forces and institutions, including credit rating agencies, investment banking analysts, and especially those in the market for corporate control, substitute for direct shareholder involvement. In such a system, considerable distance exists between monitors (investors) and management. Without the kind of "proximity" described above, investors may be unable to obtain timely, reliable information about management.⁴¹

In theory, this shortage of information could negatively impact the effectiveness of corporate governance systems in regimes in which monitors lack close proximity to management. This is especially true in the United States, as monitoring is generally *ex post* and evaluative rather than *ex ante* and proactive.⁴² However, the U.S. system also benefits from this lack of proximity, because the distance between U.S. investors and firms in which they invest brings with it a high degree of objectivity not present in corporate governance systems in which the proximity of monitoring subjects them to the risk of capture.⁴³ This objectivity increases the probability that the outside monitors will sanction corrupt or underperforming managers.

C. Adaptability

Our discussion of proximity and objectivity makes two points. First, effective monitoring of corporate management cannot exist unless the monitors possess the characteristics of *either* proximity or objectivity. Second, there is a tradeoff between proximity and objectivity that prevents a corporate governance system from providing monitoring that is both proximate and objective.

⁴⁰ See William W. Bratton & Joseph A. McCahery, *Comparative Corporate Governance and the Theory of the Firm: The Case Against Global Cross Reference*, 38 COLUM. J. TRANSNAT'L L. 213, 232 (1999).

⁴¹ See *id.* at 223 (reasoning that, in a market system like the United States', "[m]anagement has superior information respecting investment policy and the firm's prospects, but this information tends to be either soft or proprietary and therefore cannot credibly be communicated to actors in trading markets").

⁴² See Boot & Macey, *supra* note 3, at 359.

⁴³ See Bratton & McCahery, *supra* note 40, at 224 ("[A]lthough market system shareholders and their outside-director agents cannot access full information about firm operations, their very distance from operations . . . makes them relatively immune to capture by the management interest and assures objective evaluation of the information they do receive.").

Investors shy away from investing in systems in which monitors are neither proximate nor objective because they know they will be unable to protect themselves from opportunistic management behavior. Such pathological corporate governance systems, which are economic hallmarks of developing countries, must adapt to survive. These adaptations, which generally involve internal sources of finance, have benefits that are not obvious at first glance, such as encouraging firm and asset-specific capital investments.⁴⁴

D. The Role of Shareholders

Direct shareholder involvement might solve the problem of corporate governance. In the United States, however, direct shareholder involvement is mitigated by the fact that share ownership is relatively diverse, which limits shareholders' involvement to periodic interference through proxy fights, hostile takeovers, or other mechanisms designed to mobilize shareholders.⁴⁵ Thus, involvement by small-stakes shareholders exists more in theory than in practice.⁴⁶

In Continental Europe, concentrated ownership is more prevalent,⁴⁷ but this does not readily translate into more shareholder control. In some Western and Southern European countries, such as Germany, cross holdings and pyramid structures shield firms from shareholders.⁴⁸ Also, nonexecutive directors, or supervisory boards in a two-tier system, protect management from direct shareholder in-

⁴⁴ See generally Rafael La Porta et al., *Corporate Ownership Around the World*, 54 J. FIN. 471 (1999) (demonstrating that diverse ownership through shareholding has been limited in developing economies); Erik Berglöf & Ernst-Ludwig von Thadden, *The Changing Corporate Governance Paradigm: Implications for Transition and Developing Countries*, available at http://www.worldbank.org/research/abcde/washington_11/pdfs/berglof.pdf (preliminary draft) (noting the closely held nature of firms in developing countries and some benefits of such concentrated ownership).

⁴⁵ Shareholder control generally becomes more powerful when financial difficulties and managerial control problems emerge. In those circumstances, we often observe a concentration of shareholdings. See generally Andrei Shleifer & Robert W. Vishny, *Large Shareholders and Corporate Control*, 94 J. POL. ECON. 461 (1986) (demonstrating that when larger shareholders believe that incumbent management is performing poorly and the firm could be run better by new managers, the large shareholders have greater incentive to either acquire more shares or to monitor and negotiate with current management to increase performance).

⁴⁶ See John C. Coffee, Jr., *The SEC and the Institutional Investor: A Half-Time Report*, 15 CARDOZO L. REV. 837, 848, 906-07 (1994) (stating that, as of 1991, over 50% of outstanding stock in U.S. companies was held by institutional investors, who did not regularly exert influence over management decisions because such investors are "inclined to rely more on exit than voice" to protect their investment).

⁴⁷ See Bratton & McCahery, *supra* note 40, at 218 n.8 (comparing the share dispersion in the U.S. with several foreign countries).

⁴⁸ See Janis Sarra, *Corporate Governance in Global Capital Markets, Canadian and International Developments*, 76 TUL. L. REV. 1691, 1722 (2002).

volvement.⁴⁹ This is particularly true in certain Continental European countries, like the Netherlands and—to a lesser extent—Germany, where relatively autonomous supervisory boards operate semi-independently of shareholders and effectively shield management from direct shareholder involvement.⁵⁰ Thus, direct shareholder control over management is actually quite limited in many European countries, just as it is in the United States.⁵¹

The Enron collapse illustrates the basic tradeoff at the core of the Boot-Macey theory of corporate governance.⁵² In theory, Enron had both proximate monitors—its directors—as well as numerous objective monitors: outside auditors, bankers, credit rating agencies, and, of course, the cadre of stock market analysts who followed Enron. None of these monitors did their jobs effectively because the corporation captured both the proximate and the objective monitors.

Enron's Board clearly trusted management too much and did not adequately understand or question the self-dealing transactions between top managers and the corporation. However, such faith on the part of proximate managers is unsurprising. The more troubling question is why Enron's ostensibly objective monitors did such a poor job.

E. Analysts

Incredibly, in October 2001, despite the stock price having fallen by fifty percent in the previous six months and articles in the financial

⁴⁹ Deeply entrenched in U.S. law is an emphasis on the duties that directors and officers owe to shareholders. See, e.g., *Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc.*, 506 A.2d 173, 182 (Del. 1986) (finding that “[a] board may have regard for various constituencies in discharging its responsibilities, provided there are rationally related benefits accruing to the stockholders”); L.A. Hamermesh, *The Shareholder Rights By-Law: Doubts from Delaware*, 5 CORP. GOVERNANCE ADVISOR 9 (1997) (“Delaware fully supports the proposition, dismissed in some quarters as myopic, that the business and affairs of a Delaware for profit stock corporation are to be managed so as to maximize the value of the investment of one group and one group only, its stockholders.”); see also Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247 (1999) (arguing the controversial point of view that American corporate law should require directors to act in the interest of the firm, and not solely in the interest of shareholders). This focus mimics Continental European corporate governance arrangement. For example, Dutch corporate law explicitly states that directors should serve the interests of the firm as an entity. See Winfried van den Muijsenbergh, *Corporate Governance: The Dutch Experience*, 16 TRANSNAT'L LAW. 63, 65 (2002).

⁵⁰ See Thomas J. André, Jr., *Some Reflections on German Corporate Governance: A Glimpse at German Supervisory Boards*, 70 TUL. L. REV. 1819 (1996); Muijsenbergh, *supra* note 49, at 65.

⁵¹ Shareholder control is very real in cases where no separation exists between ownership and control, as one would expect in the case of family businesses. See Shleifer & Vishny, *supra* note 45, at 462. Nevertheless, the corporate governance debate focuses not on these businesses but rather on large public firms characterized by a separation of ownership and control.

⁵² See discussion *supra* Part II.A, B.

press calling Enron's financial statements "impenetrable,"⁵³ all sixteen analysts tracked by Thomson Financial/First Call rated Enron a "buy," and thirteen called it a "strong buy."⁵⁴ Worse, in November 2001—less than a month prior to Enron's bankruptcy filing, and after it had been disclosed that the SEC was investigating Enron's accounting practices—eleven of the thirteen analysts following Enron still recommended that the public purchase the stock, and only one recommended selling it.⁵⁵ Clearly, the analyst community was worthless to Enron investors.

The problem with the analysts' recommendations is not difficult to grasp. Investment banks pressure the analysts they employ to give positive ratings to companies tracked by issuers because positive ratings boost stock prices and generate capital for their investment banking clients. The case of investment banking analyst Chung Wu perhaps best illustrates this problem. UBS Paine Webber, Wu's employer, fired him on the same day that he recommended some of his clients sell Enron stock.⁵⁶ UBS Paine Webber administered the Enron employee stock option plan and had a "strong buy" position on Enron three days before the firing and re-affirmed the "strong buy" rating immediately after firing Wu. Shares of Enron stock were trading for \$36 per share on the day Wu was fired.⁵⁷ Three months later, Enron had collapsed.

The Wu anecdote demonstrates that analysts cannot effectively serve as corporate monitors. Analysts cannot act objectively when the very companies they are supposed to monitor capture their employers. A recent study by Roni Michaely and Kent Womack, comparing analysts' recommendations of companies taken public by the broker-dealer firms that employed the analysts with recommendations by ana-

⁵³ See Bethany McLean, *Is Enron Overpriced?*, FORTUNE, Mar. 5, 2001, at 122, 123.

⁵⁴ See *The Watchdogs Didn't Bark: Enron and the Wall Street Analysts: Hearing Before the Sen. Comm. on Gov't Affairs*, 107th Cong. (2002) (statement of Charles L. Hill, Director of Research, Thomson Financial/First Call) ("[O]n the eve of Enron's third quarter 2001 earnings report, [thirteen] broker analysts had a strong buy[,] . . . three had a buy, and none had a hold, sell, or strong sell.").

⁵⁵ *Id.* at 55. According to Mr. Hill,

[b]y November 12, almost a month after Enron had announced a \$1.2 billion write-off that Ken Lay could not explain on a conference call, almost a month after the *Wall Street Journal* reported Enron executives stood to make millions from Enron partnerships, [three] weeks after the CFO was fired, [two] weeks after Enron announced it was being investigated by the SEC, and [four] days after Enron announced that it had overstated [four] years of earnings by \$600 million . . . there were still eight analysts with a strong buy, three with a buy, one with a hold, and one with a strong sell.

Id.

⁵⁶ See Richard A. Oppel, Jr., *The Man Who Paid the Price for Sizing Up Enron*, N.Y. TIMES, Mar. 27, 2002, at C1.

⁵⁷ See *id.*

lysts at disinterested broker-dealers, produced similar conclusions.⁵⁸ Specifically, the study demonstrated that stocks recommended by underwriter-affiliated analysts performed significantly worse than stocks recommended by independent analysts.⁵⁹

Not surprisingly, buy recommendations have been the norm on Wall Street for some time. While two-thirds of all analysts' recommendations are either "buy" or "strong buy," less than two percent of such recommendations are either "sell" or "strong sell."⁶⁰

The rules regulating analysts must be reformed in order to regain investors' trust in the U.S. corporate governance system. Recently, the SEC approved changes in the rules concerning management and disclosure of conflicts of interest between research and invest-banking activities.⁶¹ These new rules limit the amount of compensation analysts can receive and restrict their ability to trade the securities they analyze.⁶² Furthermore, the SEC's new rules prohibit offering favorable research to attract business, and they require disclosure of analysts' ownership or interests in a client company.⁶³

F. Credit Rating Agencies

If anything, the major credit rating agencies—Standard & Poor's and Moody's—performed even worse than financial analysts during the Enron debacle. Neither Standard & Poor's nor Moody's downgraded Enron's debt below investment grade status until November 28, 2001, four days before the firm's bankruptcy, when the company's share price had plunged to a paltry sixty-one cents.⁶⁴ Although credit rating agencies' loss of independence and analysts' conflicts of interest stem from two different sources, the result is the same: these sup-

⁵⁸ See Roni Michaely & Kent L. Womack, *Conflict of Interest and the Credibility of Underwriter Analyst Recommendations*, 12 REV. FIN. STUD. 653-57 (1999).

⁵⁹ See *id.*

⁶⁰ See Lewis Braham, *Stock Ratings That Won't Give You the Runaround*, BUS. WK., Sept. 17, 2001, at 110.

⁶¹ See Press Release, New York Stock Exchange, SEC Approves Sweeping Changes in Rules Regarding Research Analysts, (May 8, 2002), at <http://www.nyse.com/press/1043881801503.html>; Self Regulatory Organizations; Order Approving Proposed Rule Changes by the National Association of Securities Dealers, Inc. and the New York Stock Exchange, Inc. and Notice of Filing and Order Granting Accelerated Approval of Amendment No. 2 to the Proposed Rule Change by the National Association of Securities Dealers, Inc. and Amendment No. 1 to the Proposed Rule Change by the New York Stock Exchange, Inc. Relating to Research Analyst Conflicts of Interest, Exchange Act Release No. 34-45908, 67 Fed. Reg. 34968-01 (May 10, 2002).

⁶² *Id.* at 34970.

⁶³ *Id.* at 34969.

⁶⁴ Thomas S. Mulligan & Nancy Vogel, *Collapse of Merger Pushes Enron to Brink of Ruin: Bankruptcy Filing Is Likely as Stock Value Withers and Bonds Fall to "Junk" Status*, L.A. TIMES, Nov. 29, 2001, at A1.

posedly outside monitors do not perform the corporate governance role on which investors rely.

Downgrades to below investment grade ratings are problematic because they become self-fulfilling prophecies.⁶⁵ For most publicly traded companies, such downgrades make bankruptcy a foregone conclusion because they signal that the company can no longer raise the debt necessary to support its operations. Thus, when such a company receives a downgrade from a credit rating agency, it will be unable to attract the credit needed to finance its operations: suppliers and trading counter-parties demand payment in advance, and the firm collapses because its creditors cut off liquidity. Many other companies' public debt goes into technical default upon a downgrade below a certain rating level, usually investment grade. A downgrade directly prompts bankruptcy for such a company because defaulting on its debt obligations triggers the company's obligation to repay hundreds of millions of dollars of debt.⁶⁶

Because a rating downgrade effectively functions like a corporate nuclear bomb, credit rating agencies are extremely reluctant to use their power to downgrade a company's debt. This, in turn, undermines the efficacy of credit ratings as a corporate governance device. For Enron, the corporation's \$250 million in rated senior unsecured debt had declined in value from ninety cents to thirty-five cents on the dollar in the month preceding its downgrade. In other words, the market rejected the investment grade rating on Enron's debt before the credit rating agencies exercised their power to downgrade it.

G. The Market for Corporate Control

Some Chicago School economists have argued that market forces alone, particularly the market for corporate control, can resolve the problem of corporate accountability. Henry Manne, for example, has asserted that "Enron is a predictable consequence of rules that inhibit the efficient functioning of the market for corporate control."⁶⁷ He suggests that the takeover market is the most efficient mechanism not only for disciplining inefficient management, but also for reducing the incidence of corporate scandals caused by managers with low morals. The market for corporate control is an extremely powerful

⁶⁵ See *id.* (noting that Moody's and Standard & Poor's cut Enron's ratings "knowing that they probably were pronouncing a death sentence").

⁶⁶ This was in fact the case with regard to some Enron credit agreements. See Sean J. Griffith, *Afterword and Comment: Towards an Ethical Duty to Market Investors*, 35 CONN. L. REV. 1223, 1238 (2003).

⁶⁷ Henry G. Manne, *Bring Back the Hostile Takeover*, WALL ST. J., June 26, 2003, at A16; see also Paolo Mastrolilli, *Interview with Milton Friedman*, LA STAMPA, June 25, 2002 (Del 10/7/2002 Sezione: Economia Pag. 3) (on file with author) (proposing that solution "for corrupt or incompetent managers comes from competition for control of the company").

corporate governance device, and, in my view, the cornerstone of U.S. corporate governance. However, the market for corporate control is not capable of dealing with recent corporate governance problems involving artificially inflated earnings, profits, and other measures of corporate performance.⁶⁸

The market for corporate control exerts powerful disciplinary pressure on underperforming management in that share prices will lag in companies with slothful or corrupt management. These depressed share prices present attractive investment opportunities for entrepreneurial corporate raiders, who profit by purchasing a controlling interest in underperforming companies and installing more competent and motivated management.⁶⁹

However, the market for corporate control only disciplines bad management when the target firm's share prices are underperforming relative to their potential. Accounting fraud, however, causes share prices to be artificially inflated, rather than depressed. Consequently, the takeover entrepreneurs who drive the market for corporate control have no incentive to utilize the takeover market to monitor and discipline managers who successfully employ questionable accounting practices to overinflate their companies' share prices.⁷⁰ In fact, the prospect of accounting fraud impedes the market for corporate control because the danger that such fraud exists deprives potential outside bidders of the ability to know with certainty the value of the assets they might be acquiring. More fundamentally, the market for corporate control depends on efficiency in the capital markets, but if share prices do not reflect managers' actual performance, the market for corporate control cannot effectively discipline corporate management.

H. Accounting Firms

Accounting firms, like stock analysts and credit rating agencies, have proven to be rather ineffective objective monitors of corporate governance due to capture problems not unlike those that plague analysts.

Accounting firms would appear to be ideal objective monitors from an outsider's perspective. A significant client like Enron represents only a tiny fraction of global revenues for even the largest ac-

⁶⁸ See E.S. Browning, *Investor Confidence Remains Fickle*, WALL ST. J., Sept. 9, 2002, at C1 ("Scandals at Enron, WorldCom, Global Crossing, Tyco International, Adelphia Communications, ImClone Systems and a host of other companies have raised questions about whether corporate earnings reports and corporate executives can be trusted.").

⁶⁹ See Schleifer & Vishny, *supra* note 45, at 462 (noting that the raider benefits when the share prices of the target firm rise to reflect the improved earnings generated by the new management team).

⁷⁰ See *id.*

counting firms. Consequently, it seems illogical for a massive accounting firm like Arthur Andersen to risk its reputation by sacrificing its independent judgment in order to please a single miscreant client like Enron.⁷¹

However irrational it was for Arthur Andersen to become captured by Enron, capture may not have seemed irrational to the individual Arthur Andersen partners auditing Enron. Because partners in big accounting firms have only one client, their professional success depends upon the quality of the relationships they form with their clients' top managers. Accounting debacles like Enron's were inevitable in an environment that rewards audit partners who are captured by their client and punishes those who report negative information about their clients through the proper corporate channels.

Arthur Andersen partners assigned to the Enron account ignored their own specialists' advice, which would have stopped Enron from falsifying its financial records.⁷² Furthermore, when Andersen accounting specialists concluded that some of Enron's practices were improper, they were overridden by the Houston office and, in some instances, were taken off the Enron account altogether if the firm disagreed with their decisions or their portrayal of Enron in a less-than-positive light.⁷³

Thus, Arthur Andersen demonstrated that audit teams assigned to large accounts may be willing to risk their firms' reputations because doing so is extremely profitable for the individual partners. Moreover, Arthur Andersen's frightening acquiescence to Enron's aggressive accounting practices, its failure to warn the market about Enron's precarious financial situation, and its inability to adequately explain what went wrong in its handling of the Enron account are symptoms of a problem afflicting the entire accounting profession.

For decades, the accounting profession flourished because investors demanded honest, independent scrutiny of companies' financial records. Companies subjected themselves to this scrutiny because it was necessary to attract outside capital.⁷⁴ Because internal accounting services would cost only a fraction of the price of an outside auditor, the strong market demand for outside auditors is best explained by outside investors' willingness to pay more for securities issued by com-

⁷¹ See Easterbrook & Fischel, *supra* note 7, at 675.

⁷² Kurt Eichenwald with Floyd Norris, *Early Verdict on Audit: Procedures Ignored*, N.Y. TIMES, June 6, 2002, at C6 (noting that "Anderson's top accounting specialists had concluded that some of Enron's most questionable accounting practices were improper, only to have their conclusions overridden by Anderson's Houston office").

⁷³ See *id.* (providing anecdotal evidence, not unlike the Chung Wu story described above in Part II.E, about the silencing of lower-level Anderson auditors who refused to sign off on certain dubious Enron transactions).

⁷⁴ See Easterbrook & Fischel, *supra* note 7, at 675.

panies whose books have been independently audited. In other words, the economic justification for the accounting profession is that reputational capital—auditors' reputations for honesty and integrity—makes companies' securities more valuable.⁷⁵

In the past, accounting firms would approve companies' financial records only if they conformed to the high standards imposed by the accounting profession. Investors trusted accountants because they knew that sloppy or corrupt accounting firms would not stay in business for long. Accounting firms believed that the long-term deterioration of their reputation from doing slipshod or fraudulent work significantly outweighed any possible short-term gains obtained by cutting corners.⁷⁶ For this reason, companies subjected themselves to public audits, thereby sending a strong signal to investors that their financial house was in order. More importantly, auditors would dismiss companies that refused to comply with their demands for reporting transparently and simply. As I have noted elsewhere, being fired by an accounting firm sent a strong negative signal to investors that often devastated the company and led to the dismissal of top management.⁷⁷

Unfortunately, in recent years, the balance of power between accounting firms and their clients has shifted dramatically, reducing the clout of accounting firms and empowering their client companies instead. This change threatens to undermine the investing public's faith in the quality of financial reporting. Further, if left unchecked, this shift in power will undermine the integrity of the financial markets because perceived inaccuracies in a company's financial records will prompt investors to either charge prohibitive rates to compensate for the uncertain risk of investment, or else cease investing altogether.

Moreover, the exclusive relationship between audit partner and client, upon which the partner's career largely depends, makes the partner particularly susceptible to client capture.⁷⁸ Thus, even though Arthur Andersen was deemed "independent" because Enron accounted for less than one percent of Andersen's total billings, Enron accounted for *all* of the billings of the lead partner assigned to Enron and for several members of his audit team.⁷⁹ Further, Arthur

⁷⁵ See *id.*

⁷⁶ See *id.*

⁷⁷ John C. Coffee, Jr., *Understanding Enron: "It's About the Gatekeepers, Stupid,"* 57 BUS. LAW. 1403, 1411 (2002) (noting that such firing causes "embarrassment" to the company); Jonathan Macey & Hillary A. Sale, *Observations on the Role of Commodification, Independence and Governance in the Accounting Industry*, 48 VILL. L. REV. 1167, 1169 (2003) (being fired by an accounting firm "often would both devastate a company and lead to the dismissal of top management").

⁷⁸ See *supra* notes 71–72 and accompanying text.

⁷⁹ See Ken Brown & Ianthe Jeanne Dugan, *Sad Account: Andersen's Fall From Grace Is a Tale of Greed and Miscues*, WALL ST. J., June 7, 2002, at A1.

Andersen's management in Chicago apparently relied solely on the captured audit team for information about the client.⁸⁰ Though not an uncommon practice among accounting firms, this disproportionate reliance on the particular audit team assigned to a client gives investors ample reason to worry about the quality and uniformity of these firms' financial reporting practices.⁸¹ Arthur Andersen's top management fired David Duncan, the lead Enron audit partner, and placed three other partners also involved with Enron on administrative leave for violating the firm's "reasonable good judgment" policy.⁸² This disciplinary action may not have been necessary, however, if Andersen's top management had itself exercised "reasonable good judgment" in its supervision of the Enron audit team. Preventing the recurrence of Enron-like financial disasters requires improved internal monitoring and control in accounting firms.

Enron damaged investors' faith in the integrity of financial markets, and particularly in the U.S. system of corporate disclosure. That system will not function properly until a lead audit partner can confidently fire a dishonest client without jeopardizing his career.

To fix the system, reform is needed. The state pension funds in New York and North Carolina have proposed a scheme which would award their brokerage business only to firms that make structural changes to reduce conflicts of interest.⁸³ Other institutional investors should likewise pressure intermediaries to reform.⁸⁴ The elimination of ties between analysts' compensation and the ratings they issue or the business they attract is one important and viable change. Analysts' compensation could instead be based on the quality and accuracy of the analysts' forecasts as compared to their competitors. Such a compensation scheme would reduce the proclivity toward the current "herd" behavior in analysts' recommendations.⁸⁵ Regulation is unlikely to be effective in this context, and so investment banks and other "sell side" financial intermediaries must adapt their services to a changing market environment. If firms do not change, the demand for their analysts' services probably will erode demonstrably.

⁸⁰ See *In re Enron Corp. Sec. Derivative and ERISA Litig.*, 235 F. Supp. 2d 549, 679 (S.D. Tex. 2002); Macey & Sale, *supra* note 77, at 1179–82.

⁸¹ See Macey & Sale, *supra* note 77, at 1181–82.

⁸² See Ken Brown et al., *Paper Trail: Andersen Fires Partner It Says Led Shredding of Enron Documents*, WALL ST. J., Jan. 16, 2002, at A1.

⁸³ Charles Gasparino, *Two Big States Tell Wall Street: Reform, or Else!*, WALL ST. J., June 7 2002, at C1.

⁸⁴ Because of their significant economic clout, institutional investors such as pension funds may occupy key positions in the drive for reform. See *id.*

⁸⁵ See John C. Coffee, Jr., *What Caused Enron? A Capsule Social and Economic History of the 1990's*, 89 CORNELL L. REV. [101, 129–30] (2004) (discussing the herd behavior phenomenon in the context of professional money managers).

III

ENRON AND CORPORATE DISCLOSURE

The basic economic model of pre-Enron corporate disclosure is relatively easy to construct. Economic theory as it relates to disclosure dictates that high-quality corporations seeking to attract capital have strong incentives to distinguish themselves from rivals because investors that cannot distinguish high- from low-quality issuers will not pay more for securities from high-quality issuers.⁸⁶ In other words, inadequate disclosure will force issuing corporations to pay higher capital costs. Under this theory, antifraud rules prevent low-quality firms from making misrepresentations that cause investors to mistakenly believe that they are high-quality firms.⁸⁷

A. Mandatory v. Enabling Rules

However, the fact that high-quality firms have incentives to disclose truthful information about themselves to lower their costs of capital and that low-quality firms have incentives to refrain from committing fraud does not imply that such disclosures should be made mandatory by law. It is not obvious why disclosure should be mandatory when disclosure itself is costly and firms appear to internalize the costs of making inadequate disclosure. However, existing theoretical and empirical economic studies provide no more than weak support for mandatory disclosure.⁸⁸ Recent research indicates that making the disclosure of certain information—such as audited balanced sheets, audited profit and loss statements, proxy information prior to shareholder meetings, and details on insider transactions—mandatory resulted in significant positive abnormal returns to shareholders in the range of sixteen to eighteen percent.⁸⁹ This research suggests that mandatory disclosure may benefit firms, either by solving the collective action problems described below, or by assisting firms who want to make certain disclosures about themselves to make these disclosures more credible to investors.

One argument supporting mandatory disclosure states that externalities will lead to inadequate disclosure without sufficient regulation.⁹⁰ Externalities are economic side effects, arising when contracting parties' actions affect third parties, who cannot be

⁸⁶ See Easterbrook & Fischel, *supra* note 7, at 683–85.

⁸⁷ See *id.*

⁸⁸ William H. Beaver, *The Nature of Mandated Disclosure*, in RICHARD A. POSNER & KENNETH E. SCOTT, *ECONOMICS OF CORPORATION LAW AND SECURITIES REGULATION* 316 (1980).

⁸⁹ Michael Greenstone, Paul Oyer, & Annette Vissing-Jørgensen, *Mandated Disclosure, Stock Returns, and the 1964 Securities Acts Amendments 2* (Oct. 2003) (unpublished manuscript, on file with author).

⁹⁰ See Beaver, *supra* note 88, at 319.

charged or compensated for the benefits or costs they receive.⁹¹ Pollution is a classic example of an externality: Smoke generated by a factory may impose health costs and cleanup costs on nearby residents who receive no compensation for bearing such costs. Polluters benefit from externalities if their production costs are lower than if polluters had to bear the total costs of their activities, including those incurred by third parties.

Corporate disclosures generate substantial externalities when they aid investors and other entities dealing with or competing against the disclosing firm. If, for example, disclosure helps competitors evaluate whether a particular product manufactured by the disclosing firm is successful, it "may provide information to other firms about their chances of success in similar product developments . . . [and] might even obviate their having to expend resources on product developments."⁹² In such a case, there will be little incentive to disclose because the disclosing firm is not compensated for the benefits that its disclosure confers on other firms.⁹³

It is unclear, however, whether externalities support or weaken the case for mandatory disclosure. Mandatory disclosure ostensibly is warranted in this context because absent regulation, firms will decline to make certain disclosures for fear of passing benefits on to competitors.⁹⁴ Requiring disclosure under these conditions would be highly inefficient if the benefits to competitors were so great that they caused firms to halt product development.⁹⁵ Firms would refrain from developing new products if such developments were costly and competitors could "free-ride" on the firms' required disclosures.⁹⁶ Thus, the case for mandatory disclosure remains indeterminate.

Further, some investors will read and benefit from a corporation's disclosure but ultimately decide not to invest. Such noninvesting free-riders may acquire valuable information without paying the costs of disclosure, while current shareholders are stuck with those disclosure costs and without any influx of new capital.⁹⁷ As a result, a suboptimal level of information will be disclosed unless such disclosure is made mandatory. However, it is unclear why companies and their investors should have to bear these disclosure costs, which inure in part to third parties.

⁹¹ See *id.* at 320.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ See Easterbrook & Fischel, *supra* note 7, at 685-86.

⁹⁵ See Beaver, *supra* note 88, at 320.

⁹⁶ *Id.*

⁹⁷ See *id.* at 320-21 (explaining that, in such shareholder externality contexts, "current shareholders bear the costs of disclosure, yet prospective shareholders share in the benefits of disclosure (i.e., they are free riders)").

A further economic justification for mandatory disclosure is that an excessive level of searching for corporate financial information will be conducted without it. Absent mandatory disclosure, investors will engage in duplicative and inefficient searches for information about public companies.⁹⁸ In contrast, requiring companies to disclose this information publicly would clearly eliminate inefficiency. However, if investors value the information, they would, presumably, be willing to pay for it, and companies would have incentive to produce it if, as Easterbrook and Fischel suggest, they can provide it more efficiently than investors.⁹⁹

The final argument for mandatory disclosure of corporate information is that it would alleviate managers' incentives to suppress valuable information that is unfavorable.¹⁰⁰ Because traditional antifraud rules do not affirmatively require firms to make disclosures, firms must only be accurate in their disclosure if they choose to disclose information at all. Mandatory disclosure might subject all firms to antifraud laws, thereby solving the problem of managers suppressing unfavorable information. On the other hand, investors might prefer to delay the release of unfavorable information in order to give management the time necessary to counter its effects. For example, before disclosing the fact that a company has lost a major client or customer, the firm may want some time to marshal its sales force to launch a search for a replacement. The loss of the customer's orders may free up some of the company's productive capacity, and if a new customer can be found, the effects of the loss of the first customer can be mitigated. If the announcement is made prematurely, though, it can harm morale and lead to an unwarranted loss of confidence in the firm, making it hard to replace the lost business.

The Enron debacle revealed a number of deficiencies in the classic economic models of disclosure policy. Obviously, the assumption that firms generally will disclose negative information about themselves must be re-examined. More fundamentally, the assumption that investors will not invest in companies that fail to disclose sufficient information about their financial condition likewise needs to be reevaluated. Market and regulatory forces may punish firms that do not make adequate disclosures about themselves in fact as well as in theory, but the prospect of receiving such punishment is apparently neither harsh nor immediate enough to deter the worst offenders.

⁹⁸ See Easterbrook & Fischel, *supra* note 7, at 681–82.

⁹⁹ See *id.* at 682.

¹⁰⁰ See John C. Coffee, Jr., *Market Failure and the Economic Case for a Mandatory Disclosure System*, 70 VA. L. REV. 717, 722 (1984).

In the following subsections, I make two additional contributions to the economic theory of mandatory disclosure, both of which relate to the economics of trust in the financial and capital markets.

B. Externalities

Externalities cause under-reporting, such as where firms unrelated to Enron are punished for Enron's wrongdoing. As noted above, externalities can lead to both overproduction and underproduction: positive externalities cause underproduction because firms producing the externality go uncompensated, whereas negative externalities cause overproduction because firms producing the externality never pay the costs they impose on third parties.¹⁰¹

Enron's misleading financial statements created an unequivocal negative externality. While they benefited Enron and its management for a time, these statements clearly tended to harm other firms, particularly those in the energy trading sector, by diminishing investor's confidence in the accuracy of the financial reporting of these companies.¹⁰² Investors naturally are concerned that other companies have managers and disclosure policies like Enron's. Put differently, Enron's actions harmed other companies by diminishing the degree to which investors and lenders trust corporate disclosure. Because Enron did not fully internalize the costs of its disclosure policies, they did not deter its conduct. Failure to account for this negative effect of misleading disclosures constitutes a deficiency in the standard law and economics model.

C. Collective Action Problems

The current economic model of disclosure also fails to account for the collective action problem, similar to a prisoners' dilemma, faced by corporations like Enron when they establish disclosure policies.¹⁰³ The prisoners' dilemma, which models a problem faced by

¹⁰¹ See *supra* notes 88–91 and accompanying text.

¹⁰² Capital is scarce. To the extent that Enron's misleading financial statements made the company look more profitable, financially secure and promising than the facts warranted, Enron's access to capital, and its cost of capital, would have been better and cheaper relative to its competitors than it deserved.

¹⁰³ See Barry Nalebuff, *Prisoners' Dilemma*, in 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 89–94 (Peter Newman ed., 1998). In the original version of the prisoners' dilemma, police arrest two suspects on suspicion of armed robbery and separate them for interrogation. Each prisoner must choose whether to confess and implicate the other suspect or to remain silent. If neither prisoner confesses, police and prosecutors can obtain a criminal conviction only for carrying a concealed weapon. If one prisoner confesses, the government can obtain convictions on both the weapons charge and on the far more serious charge of armed robbery. A prisoner can obtain a drastic sentence reduction by confessing, but if one prisoner refuses to confess and his partner-in-crime confesses, the prisoner who refuses to talk will receive a particularly harsh sentence. In other words, no

groups or individuals unable to cooperate with each other, is the best-known construct of game theory in the social sciences.¹⁰⁴ Without cooperation, individuals and companies pursue their own, rational self-interest, making suboptimal decisions from the perspective of the group as a whole.

Applying this framework to corporate disclosure policy, two hypothetical companies, Enron and Exron, which are identical in every way, must each choose between having highly transparent and honest—"good"—disclosure policies and having highly opaque and obfuscatory—"bad"—policies. Simultaneously pursuing a good disclosure policy produces a better result for both companies, but each company can benefit individually by adopting a bad disclosure policy, provided the other company adopts a good one. The worst outcome for either company would be to adopt a good disclosure policy if the other company adopts a bad disclosure policy. In a world of limited capital, each company can benefit at the expense of the other company by making false or misleading disclosures to convince investors that their securities are worth more than those of the other company. An initially honest company can narrow this differential only by engaging in fraudulent conduct to counteract other firms' fraudulent conduct.

In particular, both firms would disclose a certain acute problem if they were completely honest with the investing public. If such disclosures were made, neither firm would suffer relative to the other, although the share prices of both firms would decline. However, the market punishes the firm and its managers as soon as they make the disclosure. Therefore, if Enron discloses the information but Exron does not, then the market will punish Enron immediately, but Exron will emerge unscathed. In monetary terms, Enron's stock would drop from, say, \$100 per share to, say, \$25 per share, while Exron's shares will stay, for the time being, at \$100 per share. Similarly, if Exron discloses the information but Enron does not, Exron's stock will drop to \$25, and Enron's stock will remain at \$100.

matter what the other prisoner does, a suspect can improve his own position by confessing and implicating the other suspect. However, the prisoners would obtain the best collective result if both remained silent. See *infra* note 104 for a chart depicting the outcome under the various scenarios described here.

¹⁰⁴ See *id.* The following chart reflects the jail sentence each suspect described in note 103 *supra* would receive under the four possible scenarios:

Prisoners' Dilemma		
	Prisoner 1 confesses:	Prisoner 1 doesn't confess:
Prisoner 2 confesses:	Prisoner 1: 10 years Prisoner 2: 10 years	Prisoner 1: 25 years Prisoner 2: 3 years
Prisoner 2 doesn't confess:	Prisoner 1: 3 years Prisoner 2: 25 years	Prisoner 1: 1 year Prisoner 2: 1 year

Thus, both firms have incentives not to disclose because each firm will obtain the best possible outcome if it refrains from disclosing and the other firm makes the disclosure. However, each firm will suffer the worst possible outcome if it discloses and the other firm hides the information.

Unfortunately, if neither firm makes the appropriate disclosure, market participants generally will come to distrust the public disclosure of reporting companies, and the value of both investments will shrink, say, to \$30 per share. But if both firms make the appropriate disclosure, share prices will only drop to \$50 per share because investors and other market participants will be confident that all of the negative information about the company has been circulated. The following table illustrates these outcomes:

Prisoners' Dilemma and Disclosure		
	Enron discloses:	Enron doesn't disclose:
Exron discloses:	Enron: \$50 Exron: \$50	Enron: \$100 Exron: \$25
Exron doesn't disclose:	Enron: \$25 Exron: \$100	Enron: \$30 Exron: \$30

The problem becomes more pronounced when one moves the example from a two-firm theoretical construct to the real world, in which there are hundreds of thousands of public companies. Share prices remain high so long as investors trust the overall integrity of the public disclosure system. If investors come to distrust the system, however, then share prices will collapse, and all firms will suffer. Firms that commit to making public disclosure about themselves have strong incentives to "cheat" by making false, partial, or misleading disclosures. Whereas cheating by a small number of firms will benefit those firms if confidence in the system as a whole remains generally high, cheating by a large percentage of reporting companies will cause share prices to collapse because investors will no longer trust the market.

If all public companies made binding agreements to report fully, fairly, and honestly, the best of all possible prisoner's dilemma disclosure outcomes for both firms and society would result. This scenario maximizes firms' pool of available capital and contributes to low cost of capital and the high quality of capital markets. However, each firm can benefit at the expense of its rivals by cheating slightly on its promise to make full and fair disclosure of material information, thereby making itself look comparatively better and further lowering its cost of capital. Therefore, cheating on disclosure is the dominant, "maximin," strategy: it is the only way to obtain the maximum benefit—producing the lowest cost of capital—when one firm alone makes misleading disclosures, but at the same time it is the only way to avoid the

worst, i.e., “minimum,” outcome, which results if one firm is honest but all other firms cheat.

Thus, honest firms face something akin to a prisoners’ dilemma when establishing their disclosure policies. Dishonest rivals can benefit at the expense of honest firms by making false or incomplete disclosures, but widespread cheating will eventually cause the system to collapse under the weight of its own dishonesty. In this context, regulation of public disclosure is necessary to solve the prisoners’ dilemma facing public companies because a severe punishment for false reporting will eliminate firms’ incentive to cheat. Recent empirical research supports the conclusion that mandatory disclosure may benefit investors by reducing agency costs.¹⁰⁵

IV

ENRON AND MARKET EFFICIENCY

Issues of market efficiency are closely connected to issues of disclosure, and therefore assumptions about the reasons for market efficiency inform our views about disclosure.

Securities markets function efficiently when share price fully reflects information about the issuer.¹⁰⁶ In economists’ terms, an efficiency model where prices reflect all information until the point at which the marginal costs of using the information outweigh the attainable profits is most sensible.¹⁰⁷ Securities markets are described as “weak form” efficient if share prices reflect only the information implied by historical prices, “semi-strong” efficient if securities prices reflect all publicly available information about the company, and “strong form” efficient if securities prices reflect *all* information—both public as well as private inside information.¹⁰⁸

Virtually no support exists for the “strong” form of the efficient capital markets hypothesis (ECMH), which makes sense because insiders can earn significant, abnormal returns by trading on non-public information. On the other hand, there is considerable support for

¹⁰⁵ See Greenstone, Oyer, & Vissing-Jørgensen, *supra* note 89.

¹⁰⁶ See Beaver, *supra* note 88, at 328 (“[T]he market is efficient with respect to a given piece of information if prices act as if everyone possessed that information and were able to interpret its implications for security prices”).

¹⁰⁷ See Eugene F. Fama, *Efficient Capital Markets: II*, 46 J. FIN. 1575 (1991) (“[An] economically more sensible version of the efficiency hypothesis says that prices reflect information to the point where the marginal benefits of acting on information (the profits to be made) do not exceed the marginal costs.” (citation omitted)); *Anomalous Evidence*, *supra* note 9, at 96 (“A market is efficient with respect to information set •₁ if it is impossible to make economic profits by trading on the basis of information set •₁”).

¹⁰⁸ See Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. FIN. 383, 388 (1970); *Anomalous Evidence*, *supra* note 9, at 97.

the “weak” and “semi-strong” forms of the ECMH.¹⁰⁹ In particular, studies have shown that mutual fund managers relying on publicly available information do not outperform the market indices.¹¹⁰

Market efficiency protects shareholders and saves them money: efficient share prices that reflect all available information permit shareholders to buy and sell shares at fair, unbiased prices in reliance on publicly listed prices. As a result, shareholders need not incur the cost of ferreting out information about the companies in which they invest.

Put differently, average shareholders cannot be expected to understand the arcane world of corporate accounting and finance. Prices must therefore be efficient in order to encourage average people to rely on the information content of securities prices. To the extent that the market is efficient, share prices would protect investors without the need to read lengthy and impenetrable disclosure documents.

What does Enron reveal about the efficiency of the market? From one perspective, Enron’s collapse casts some serious doubts on the efficiency of the market. After all, the company’s shares fell from over \$85 per share in September 2000 to just over \$25 per share in 2001, to almost zero in 2002.¹¹¹ Had the market for Enron stock been efficient, share prices would have reflected the related-party transactions commencing in 1997.

In fact, CalPERS wanted to cash in its JEDI I stake in September 1997 because of its concerns about the conflict of interest transactions. Rather than liquidate JEDI I, Enron looked for another party to invest \$383 million in CalPERS’ place. Enter Chewco Investments, created specifically for that purpose.¹¹² This does not deflate the “semi-strong” form of the ECMH, however, because CalPERS received material nonpublic information—not included in the “semi-strong” form of efficiency—during its negotiations with Enron about its JEDI I investment.

On the other hand, analyst Jim Chanos began scrutinizing Enron’s financial statements in September 1990 and proceeded to trade

¹⁰⁹ See Stephen A. Ross et al., *Corporate Finance*, reprinted in part in FOUNDATIONS OF CORPORATE LAW 45, 51–58 (Roberta Romano ed., 1993).

¹¹⁰ *Id.* at 57 (noting that this is indicative of and “consistent with semistrong-form and weak-form efficiency”).

¹¹¹ For a particularly colorful chart of Enron’s share price over time, see the Milberg Weiss Bershad Hynes & Lerach Web site, http://www.enronfraud.com/pdf/enron_chart2.pdf (last visited Dec. 20, 2003); <http://stocks.tradingcharts.com/stocks/charts/ENE/M> (last visited Dec. 20, 2003).

¹¹² See POWERS REPORT, *supra* note 6, at 44–45.

at the height of Enron's success.¹¹³ Chanos realized that Enron, which was trading at sixty times its earnings, was vastly overvalued.¹¹⁴ Moreover, using publicly available documents, Chanos calculated that Enron was earning only seven percent on its capital, as compared to an average cost of capital of ten percent.¹¹⁵

A September 2000 article in the now-defunct Texas edition of the *Wall Street Journal* inspired Chanos to look more closely into Enron's financial condition.¹¹⁶ The article questioned the quality of stated earnings at Enron and a number of other companies with large energy trading departments and pointed out that investors may not realize that Enron's large reported profits were in the form of large, unrealized noncash gains that could be wiped out by changes in market conditions.¹¹⁷ For example, Enron had booked \$747 million in unrealized gains from trading activities during the second quarter of 2000—far exceeding its \$609 million pretax earnings.¹¹⁸ In other words, Enron would have suffered a quarterly loss without these unrealized gains, rather than the 26% increase in earnings it actually reported.¹¹⁹

Enron's financials did not reveal that two-thirds of the company's debt was not disclosed on its balance sheet. However, its annual and quarterly reports reveal that an unnamed Enron "senior officer" supervised several limited partnerships engaged in numerous transactions with the company, all of which removed assets from Enron's books while providing Enron with revenue.¹²⁰ For this reason, Chanos singled out Enron, then trading at \$80 per share, at his firm's annual "Bears in Hibernation" meeting in February 2001.¹²¹

The market's apparent inability to translate the signal sent when Skilling, Enron's former President and Chief Operating Officer, re-

¹¹³ Jonathan R. Laing, *The Bear That Roared: How Short-Seller Jim Chanos Helped Expose Enron*, BARRON'S, Jan. 28, 2002, at 18.

¹¹⁴ See *id.* Chanos reasoned that Enron should trade more like a hedge fund than an energy company because it relied on trading for more than eighty percent of its earnings, and in that case many other, better-performing hedge funds' shares were priced attractively relative to Enron's. See *id.*

¹¹⁵ See *id.*

¹¹⁶ See *Lessons Learned from Enron's Collapse: Auditing the Accounting Industry: Hearing Before the House Comm. on Energy and Commerce*, 107th Cong. 72 (2d Sess. 2002) (testimony of James Chanos, President, Kynikos Assoc., Ltd.).

¹¹⁷ See Jonathan Weil, *Energy Traders Cite Gains, but Some Math Is Missing*, WALL ST. J., TEX. J., Sept. 20, 2000, at T1, available at 2000 WL-WSJ 26610344; see also POWERS REPORT, *supra* note 6, at 11 ("Enron sold assets to [certain SPEs] that it wanted to remove from its books. These transactions often occurred close to the end of financial reporting periods."); *id.* at 12–13.

¹¹⁸ See Weil, *supra* note 117.

¹¹⁹ See *id.*

¹²⁰ The identity of this partner was revealed in October 2001 to be Andrew Fastow, Enron's CFO. See *id.*

¹²¹ See *id.*

signed in December 2000 demonstrates another hole in the ECMH.¹²² Moreover, Enron share prices remained high in the first quarter of 2001, even after Bethany McLean's article titled "Is Enron Overpriced?" questioned Enron's "impenetrable" accounting practices.¹²³

Not all of the evidence surrounding Enron's share price collapse points towards market inefficiency, however. In particular, the market price provided a far better signal of Enron's decline than the ratings posted by both credit rating agencies and analysts. Nevertheless, analysts' continued "buy" recommendations, even after the Company disclosed that its last five years of earnings needed to be restated, indicates that analysts were more concerned with currying favor with issuers than distributing honest ratings.

Enron insiders' sale of more than a billion dollars of Enron stock in the years preceding the company's collapse provides further proof that the strong form of the ECMH is not valid.

CONCLUSION

The history of capital markets regulation is largely a series of regulatory responses to problems already corrected by market forces.¹²⁴ While it is easy to say that the irresponsible and lawless actions that led to Enron's collapse should not be repeated, it is considerably more difficult to discern the appropriate measures to prevent another monumental collapse. The most forceful and effective action thus far has been initiated not by regulators, legislators, or academics, but by investors.¹²⁵ Enron, along with the "steady stream of accounting scandals, corporate chicanery and questionable practices at Wall Street firms," has damaged investors' confidence in the market.¹²⁶ Further, the unscrupulous conduct of senior executives has wounded the business community as a whole.¹²⁷ Interestingly, as reported in a recent poll, eighty-four percent of U.S. investors believe that dubious accounting practices are responsible for U.S. markets' dismal performances this

¹²² See McLean, *supra* note 26, at 58 (describing Skilling's resignation as "what should have been the clearest signal yet of serious problems").

¹²³ McLean, *supra* note 53.

¹²⁴ For an insightful analysis of lessons that one should not derive from Enron's collapse, see C. Evan Stewart, *Caveat 'Reformers': Lessons Not To Be Learned from Enron's Collapse*, 34(8) BNA SECURITIES REGULATION LAW REPORT ANALYSIS AND PERSPECTIVE 310, Feb. 25, 2002.

¹²⁵ See, e.g., Nick Evans, *Enronitis, Witch-hunts, and Financial Hypochondria*, EUROMONEY, Mar. 2002, at 42 (describing Krispy Kreme's immediate announcement to restructure the financing of a factory after a *New York Post* article warned investors that Krispy Kreme planned to finance the factory with off-balance sheet transactions).

¹²⁶ Gretchen Morgenson, *What If Investors Won't Join the Party?* N.Y. TIMES, June 2, 2002, § 3, at 1.

¹²⁷ Patrick McGeehan, *Goldman Chief Urges Reforms in Corporations*, N.Y. TIMES, June 6, 2002, at C1.

year, much more than the war in Iraq or terrorism concerns.¹²⁸ Moreover, a staggering seventy-one percent of U.S. investors think questionable accounting practices are widespread in business.¹²⁹ Consequently, investors are less prone to invest in stocks or mutual funds than before.¹³⁰ Thus, the corruption among corporate executives and analysts is hindering the growth and recovery of our market.¹³¹

Investors doubt the fundamental fairness of American capital markets to a greater extent now than anytime since the Great Depression. Firms in search of capital will have to address investors' concerns about the market honesty or face capital costs so high that the prospects for meaningful economic recovery all but disappear. Meaningful reform, in my view, will require fewer technical disclosure rules. Such technical disclosure requirements provided the blueprint for Enron's financial fraud, where accounting rules were employed to hide the company's debt through off-balance sheet limited partnerships. Rather, investors need disclosure that is simple, clear and informative.¹³² The current, highly technical accounting system is easy to manipulate because of its complexity, and firms will take advantage of this fact because of the intense pressure to produce a profit.¹³³ Regulators should streamline and simplify the stupefying disclosure rules that Enron so easily manipulated.

The oligopolistic nature of the accounting, credit rating, and investment banking industries impedes meaningful reform in these sectors. Without independent analysts, investors lose faith in the system.¹³⁴ At this writing, there are only four functional accounting firms, two dominant credit rating agencies, and a handful of "bulge bracket"¹³⁵ investment banks in an industry that is "overly dominated" by these established firms.¹³⁶ These firms may not have sufficient in-

¹²⁸ Morgenson, *supra* note 126.

¹²⁹ University of Michigan Monthly Consumer Confidence Report, at <http://www.sca.isr.umich.edu/main.php>.

¹³⁰ See Morgenson, *supra* note 126.

¹³¹ McGeehan, *supra* note 127.

¹³² See Stewart, *supra* note 124, at 310. This disclosure must clearly delineate the assumptions used to make claims regarding valuations, and it must also explain which valuations are based on qualitative judgments.

¹³³ See McGeehan, *supra* note 127.

¹³⁴ See *id.*

¹³⁵ "Bulge bracket" is Wall Street jargon for the most elite investment banks. The term refers to the banks in an underwriting syndicate responsible for selling the largest amounts of the issuer's securities and whose names appear first on prospectuses and "tombstone" ads. Ayako Yasuda, Do Bank-Firm Relationships Affect Bank Competition in the Corporate Bond Underwriting Market? (Jan. 10, 2003) (Wharton School Working Paper), at <http://finance.wharton.upenn.edu/~rlwctrpapers/0302.pdf>.

¹³⁶ *Redesign Flaws: Investment Banking*, ECONOMIST-JAPAN.COM, http://www.economist-japan.com/2002/20021116/cont_e02.html (last visited Dec. 20, 2003).

centives to thoroughly reform themselves until they are forced to face an increased level of rigorous competition. Rather than piling on new laws to regulate the financial markets, regulators should devise strategies to encourage more market competition.