

# Regulation and Scholarship: Constant Companions or Occasional Bedfellows?

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## Introduction

Capital market regulators often, but not always, are driven to launch their most important new regulatory initiatives by scholarly findings in the fields of finance and law and economics. Sometimes exciting and original social science scholarship that relates to the law and regulation of capital markets profoundly influences regulation; sometimes such scholarship is ignored completely. This brief contribution to the *Yale Journal on Regulation* is based on a speech given at the *Journal's* twenty-fifth anniversary celebration on April 25, 2008, and is a prelude to a full article on the same topic that will be published in the Winter 2009 issue of the *Journal*. In both of these contributions I adduce evidence to support the hypothesis that the truth and intellectual strength of the work does not seem to be the key driver that determines influence. Rather, political expediency appears to be the determinative factor. This piece presents a summary of a few of the major arguments in the forthcoming article.

## I. When Scholarship Influences Regulation

The profound influence of social science scholarship on regulation and litigation has not received the attention it deserves. Without the new insights provided by legal scholarship, it is likely that *none* of the three major regulatory initiatives that have altered the landscape of U.S. capital markets over the last decade would have occurred. To make this point, the following three subsections of this Essay discuss each of the pieces of law and finance scholarship that drove these regulatory initiatives.

### A. *Odd-Eighth Quotes*

The first example of empirical work in social science that launched a major regulatory response was William Christie and Paul Schultz's article in the *Journal of Finance*, "Why Do Nasdaq Market Makers Avoid Odd-Eighth

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Quotes?”<sup>1</sup> Christie and Schultz examined trading in the Nasdaq stock market, which, along with the New York Stock Exchange (NYSE), is one of the two principal equity-trading markets in the United States. Like other U.S. equity markets, the NASDAQ stock market competes for listings and for order flow by offering an attractive trading venue to purchasers and sellers of equity securities. What Christie and Schultz found was not just price fixing, but probably the most subtle, ingenious, and successful price fixing scheme since Adam Smith began to worry about the problem in the eighteenth century.<sup>2</sup> This discovery led to massive antitrust and securities enforcement efforts that entailed a private class action lawsuit with a settlement of over \$1 billion, an investigation by the U.S. Department of Justice into price fixing that concluded with total fines on major U.S. investment banks exceeding another \$1 billion, as well as dramatic new regulations and market practices concerning not only the way orders are handled in the securities markets, but also how securities prices are quoted.

#### B. *Mutual Fund Late Trading*

Another example of empirical scholarship in social science that launched (literally) a thousand (or more) lawyers into action was work done in 2004 by Eric Zitzewitz, a young assistant professor at the Stanford Graduate School of Business.<sup>3</sup> Zitzewitz’s work examined trading in U.S. mutual funds. Zitzewitz pointed out that the prices at which mutual funds bought and sold their own shares from their investors often were inaccurate. This, in turn, gave crafty institutional investors such as hedge funds the ability to transfer wealth to themselves from unsophisticated mutual fund investors. As Zitzewitz described the problem:

Investors can take advantage of mutual funds that calculate their NAVs using stale closing prices by trading based on recent market movements. . . . For example, if the U.S. market has risen since the close of overseas equity markets, investors can expect that overseas equity markets will open higher the following morning. Investors can buy a fund with a stale-price NAV for less than its current value, and they can likewise sell a fund for more than its current value on a day that the U.S. market has fallen.<sup>4</sup>

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1 William G. Christie & Paul H. Schultz, *Why Do Nasdaq Market Makers Avoid Odd-Eighth Quotes?*, 49 J. FIN. 1813 (1994).

2 In Adam Smith’s immortal words, “[P]eople of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.” THE WEALTH OF NATIONS 128 (Random House 1973) (1776).

3 Eric Zitzewitz, *Who Cares About Shareholders? Arbitrage-Proofing Mutual Funds*, 19 J.L. ECON. & ORG. 245 (2003) [hereinafter Zitzewitz, *Who Cares About Shareholders?*]; see also Eric Zitzewitz, *How Widespread Was Late Trading in Mutual Funds?*, 96 AM. ECON. REV. 284 (2006).

4 Zitzewitz, *Who Cares About Shareholders?*, *supra* note 3.

The SEC clearly *was aware* of the problems caused by stale pricing.<sup>5</sup> The Commission jawboned the mutual fund industry to eliminate the possibilities of abuse by using what is known as “fair value pricing.” Fair value pricing involves providing more frequent price updates for securities that have not traded for a certain period of time. The fair value price is determined on the basis of the price that an arm's-length buyer would pay for the security at the relevant time. Interestingly, it appears that when the mutual fund industry resisted the SEC’s efforts to reform the industry’s pricing practices, “the SEC essentially backed down.”<sup>6</sup>

Elliott Spitzer, then an ambitious, entrepreneurial state Attorney General, brought an investigation. Ultimately, virtually every major mutual fund complex was investigated and late trading ground to a virtual halt as a result of his efforts. These enforcement measures were probably inconsistent with applicable SEC regulations that clearly permit such activities.

### C. *Options Backdating*

The third major regulatory initiative, which addressed the backdating in the granting of corporate stock options to corporate executives and other employees, was years in the making. In 1997, David Yermack, Professor of Finance at New York University, published a paper on the relationship between stock prices and option grants.<sup>7</sup> Yermack was interested in the ability of corporate managers to influence their own compensation. Utilizing a sample of 620 stock option awards to Chief Executive Officers (CEOs) of the largest U.S. corporations made between 1992 and 1994, Yermack found that the timing of stock option awards coincided uncannily with favorable movements in company stock prices. Specifically, CEOs received stock option awards shortly before favorable corporate news that led to upturns in company share prices. Professor Yermack was not able to explain whether executives were receiving stock options at low price points because of luck, prescience, or some other factor.

Research in 2004 by Professor Erik Lie was the first to suggest a nefarious explanation for the timing of executive stock option grants. Professor Lie’s research indicated that the best explanation for the timing of stock option grants

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<sup>5</sup> U.S. GOV’T ACCOUNTABILITY OFFICE, MUTUAL FUND TRADING ABUSES: LESSONS CAN BE LEARNED FROM SEC NOT HAVING DETECTED VIOLATIONS AT AN EARLIER STAGE, GAO-05-313 (Apr. 2005); *Mutual Fund Trading Abuses: Hearing Before the Subcomm. on Commercial and Admin. Law of the H. Comm. on the Judiciary*, 109th Cong. 6 (2005) [hereinafter *Mutual Fund Trading Abuses*] (statement of Eric Zitzewitz, Assistant Professor, Stanford Graduate Sch. of Bus.) (noting that “the SEC was aware of inefficiencies in the pricing of mutual fund shares that created arbitrage opportunities”).

<sup>6</sup> *Mutual Fund Trading Abuses*, *supra* note 5, at 3; *see also* Investment Company Institute, Valuation Liquidity Issues for Mutual Funds: 2002 Supplement (2002) (white paper); Letter from the Comm. on Inv. Mgmt. Regulation of the Ass’n of the Bar of N.Y. City to the Sec. and Exch. Comm’n (June 21, 2001) (cited in Eric Zitzewitz, *Who Cares About Shareholders?*, *supra* note 3, at 273).

<sup>7</sup> David Yermack, *Good Timing: CEO Stock Option Awards and Company News Announcements*, 52 J. FIN. 449 (1997).

might be rather unsavory. He posited that the available evidence was consistent with the theory that public companies were backdating stock-option grant dates to enrich their senior executives.

Options backdating is the practice of granting an employee a stock option that permits the grantee to purchase shares at a lower price recorded on a date *prior to* the date that the company actually granted the option. For example, suppose that a company's share price was \$25 per share on March 1, 2008, but has risen to \$35 per share on April 30. Clearly, an option to purchase stock in the company at the lower March 1 price is more valuable than an option to purchase stock in the same company at the higher April 30 price. Such backdating raises potential legal and regulatory reporting and disclosure problems.

Professor Lie extended the earlier work of Professor Yermack by examining options grants by companies that granted options to executives in consecutive years, but not on the same day every year. Professor Lie discovered a pattern: stock prices systematically tended to fall just prior to the date on which the options were said to have been granted, but they rose almost immediately after the grant. In other words, if one thinks of a stock-price chart, options were granted at a dip in the market price that preceded a price increase. Of equal interest to Professor Lie was the fact that the options granted to lucky executives did not always precede good news about the particular company for which an executive worked. Instead, options often appeared to have been granted just prior to increases in stock prices for the entire stock market that had nothing to do with any events in the company granting the options. In other words, the executives receiving stock options grants not only appear to have been very prescient about news at their own firms; they also appeared to have been very prescient about the stock market in general. These results led Professor Lie to the conclusion that "at least some of the awards are timed retroactively."<sup>8</sup>

Dr. Lie actually sent a copy of his article to the SEC in early 2004 and later received an acknowledgement stating it was "interesting."<sup>9</sup> Then, in March 2004, building on Lie's work, the *Wall Street Journal* printed a story on the front page that reported on Lie's study and used its own statistical analysis to identify several companies with highly suspicious grant practices. Among other findings, the *Wall Street Journal* looked at several option grants made to Jeffrey Rich, the former chief executive officer of Affiliated Computer Services, Inc. Ostensibly, all of these grants were made immediately prior to sharp spikes in Affiliated's share prices. The *Journal* estimated that the odds against this happening by chance were 300 billion-to-one, twice as bad as the 146 billion-to-one odds against winning the Powerball lottery with a \$1

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8 Erik Lie, *On the Timing of CEO Stock Option Awards*, 51 MGMT SCI. 802 (2005).

9 Steve Stecklow, *Options Study Becomes Required Reading*, WALL ST. J., May 30, 2006, at B1.

ticket.<sup>10</sup> After that, the SEC, DOJ and state enforcement actions came fast and furious.

## II. When Scholarship Fails to Influence Regulation

Interestingly, while scholarship in the above cases led to massive regulatory efforts, sometimes equally important scholarship simply is ignored. In this Part of this Essay, I analyze the question of why regulators sometimes choose to ignore important scholarship.

### A. *Insider Trading in Congress*

In a fascinating 2004 article in the *Journal of Financial and Quantitative Analysis* called “Abnormal Returns from the Common Stock Investments of the U.S. Senate,” Alan J. Ziobrowski, Ping Cheng, James W. Boyd, and Brigitte J. Ziobrowski show that U.S. Senators are able to use their inside information about forthcoming government action to obtain significant positive abnormal returns on their equity investments. Specifically, the authors examine the common stock investments of members of the U.S. Senate during the period 1993-1998 and demonstrate that the stock market trades of U.S. Senators beat the market by the astonishing amount of 97 basis points per month (85 basis points on purchases, 12 basis points on sales). This difference in the returns of stocks bought and sold (nearly one percentage point per month) is economically large and reliably positive. Senators showed a remarkable ability to buy stocks at their lowest prices and to sell them at their highest prices during a given period.<sup>11</sup> In response to the “shocking” news of public officials using their official positions for personal gain, Louise Slaughter, the chair of the House Rules Committee (D-NY) and Brian Baird (D-WA) proposed the Stop Trading on Congressional Knowledge Act.<sup>12</sup> The proposed legislation was killed in congressional committee. Clearly, the SEC did not want to offend the politicians that both oversee the agency and determine its funding.

### B. *The Prosecution of Arthur Andersen*

The government’s criminal prosecution of Arthur Andersen was a direct response to the public outcry over Enron’s collapse. When Enron imploded in a

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<sup>10</sup> Charles Forelle & James Bandler, *The Perfect Payday: Some CEOs Reap Millions by Landing Stock Options When They Are Most Valuable; Luck—Or Something Else?*, WALL ST. J., Mar. 18, 2006, at A1. When queried about his options grants by the *Wall Street Journal*, Mr. Rich denied that his options had been backdated and attributed the fortuitous timing of the options grants to “blind luck.” *Id.*

<sup>11</sup> Alan J. Ziobrowski et al., *Abnormal Returns from the Common Stock Investments of the U.S. Senate*, 39 J. FIN. & QUANT. ANALYSIS 661 (2004).

<sup>12</sup> The Act was first proposed as H.R. 5015 in the 109th Congress. Since mid-2007 the Act has been stalled in Congress as H.R. 2341, and appears likely to be stalled in Committee.

flurry of corporate governance and accounting scandals, a special task force was established within the Department of Justice to prosecute those thought to be responsible for the scandals. One of the major targets of this task force was Enron's accounting firm, Arthur Andersen, which was indicted for obstruction of justice in its handling of certain documents related to its audits of Enron. The government justified its indictment of Arthur Andersen on the grounds that Andersen was significantly more corrupt and susceptible to capture by its clients than rival auditing firms.

The criminal prosecution of Andersen was simply a reflection of the government's decision to operationalize its assumption that Andersen's pathologies, whatever they might be, were unique among the major accounting firms. As one commentator observed, "[T]he Justice Department's decision to bring criminal charges against Andersen and not against any other major accounting firm supports the view that Andersen deserved to be singled out for special treatment."<sup>13</sup> In other words, the Justice Department's prosecution of Arthur Andersen reflects only the government belief (or assertion of belief) that Andersen deserved to be singled out for special treatment.

The government's criminal charges led directly to the demise of Andersen,<sup>14</sup> notwithstanding the fact that Andersen's conviction was overturned unanimously by the U.S. Supreme Court.<sup>15</sup> The prosecution of Andersen eliminated for all time one of the very few major audit firms capable of auditing the largest U.S. public corporations.

In an earlier article jointly authored with Ted Eisenberg, I examined Andersen's relative performance, as measured by whether Andersen's clients issued and filed erroneous financial statements that they had to later restate more often than the other large auditing firms.<sup>16</sup> The Eisenberg-Macey analysis of about 1000 large, public firms from 1997-2001 yielded no evidence that Andersen's performance as an auditor was any different than the performance of its peer group of auditing firms.<sup>17</sup> Andersen's clients did not restate their

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13 Pomsit Jiraporn, Shareholder Rights, Corporate Governance, and Auditor Selection: Evidence from Arthur Andersen (Feb. 8, 2007) (unpublished manuscript, available at <http://ssrn.com/abstract=926746>).

14 Federal regulations forbid convicted felons to audit public companies. On August 31, 2002, in the wake of its conviction on June 15, 2002, Andersen surrendered its license as a Certified Public Accountant. This ended the firm's ability to do business. Andersen never returned to business, even though his conviction was overturned in 2005.

15 *Arthur Andersen LLP v. United States*, 544 U.S. 696 (2005) (vacating Arthur Andersen's conviction for obstruction of justice). The Court held that the instructions to the jury were fatally flawed because they permitted Andersen to be convicted regardless of whether Andersen was aware that it had broken the law. The opinion, authored by Justice Rehnquist, emphasized that "the jury instructions at issue simply failed to convey the requisite consciousness of wrongdoing. Indeed, it is striking how little culpability the instructions required." *Id.* at 706.

16 Theodore Eisenberg & Jonathan R. Macey, *Was Arthur Andersen Different? An Empirical Examination of Major Accounting Firm Audits of Large Clients*, 1 J. EMPIRICAL LEGAL STUD. 263 (2004).

17 Consistent with the empirical results that Eisenberg and I reported, the international accounting firm Deloitte & Touche published an audit quality peer review of Andersen in January of

financial results at a significantly different rate than the other major accounting firms during this period. During the period of our study, private plaintiffs and government regulators began to focus more intensively on accounting irregularities, and the percentage of public companies restating their financial results increased dramatically. Interestingly, however, we did not find a significant rise in Andersen's share of the increased number of restatements. Rather, the distribution of restatements among the largest accounting firms remained roughly the same.

Thus, by the restatement-rate measure, the vilified and now-defunct Andersen was not objectively different from the other major accounting firms. The stakes of accurately describing Andersen's performance in auditing public companies were high. Remarkably few large accounting firms audit multiple large, public corporations. Removing a major firm from such a thin market has had dramatic implications for the public securities markets as well as for the accounting industry as a whole. Independent of Andersen's particular performance, the stakes of understanding the pattern of financial restatements are also high.

### C. *Quacking about Regulation and Ignoring the Evidence: Sarbanes-Oxley*

Another example of policymakers' ability to ignore scientific evidence when it is convenient for them to do so is reflected in the Sarbanes-Oxley Act of 2002.<sup>18</sup> As Roberta Romano demonstrated in her article *Sarbanes-Oxley and the Making of Quack Corporate Governance*,<sup>19</sup> Sarbanes-Oxley, arguably the most important federal statute in the area of corporate law and corporate governance, was passed without any attention to the available social-scientific evidence in finance and economics.

Romano's key contribution is to point out that Sarbanes-Oxley (SOX) was enacted against a background of existing social science research that might have been deployed to inform the contents of the statute, but was not. Specifically, Romano "evaluates SOX's substantive governance provisions and the political dynamics that produced them from the perspective of the substantial body of empirical accounting and finance literature related to those

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2002. This peer review is regarded as highly comprehensive. It covered 240 Andersen engagements in thirty offices. The review concluded that "Andersen's system of accounting and audit quality provided reasonable assurance of compliance with professional standards." Paul K. Chaney & Kirk L. Philipich, *Shredded Reputation: The Cost of Audit Failure*, 40 J. ACCT. RES. 1221 (2002). A study has shown that Arthur Andersen clients reported bad news in a less timely fashion than other accounting firms, but this study focuses only on clients in Andersen's Houston office, which, unlike the rest of Andersen, likely was captured by at least some of its audit clients. See Gopal V. Krishnan, *Did Houston Clients of Arthur Andersen Recognize Publicly Available Bad News in a Timely Fashion?*, 22 CONTEMP. ACCOUNTING RES. 165 (2005).

<sup>18</sup> Public Company Accounting Reform and Investor Protection (Sarbanes-Oxley) Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (codified as amended in scattered sections of 15, 18 U.S.C.).

<sup>19</sup> Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521 (2005).

provisions.”<sup>20</sup> As Romano points out, “the gist” of the extant empirical social science literature in financial economics made it clear that “the proposed mandates would not be effective,” and this literature “was available to legislators while they were formulating SOX.”<sup>21</sup> In other words, the new provisions of SOX imposed reforms that the existing social science literature had found to be ineffective. Moreover, the substantive provisions of SOX did not even have a nexus to the problems within Enron that led to the firm’s collapse.<sup>22</sup>

Romano focuses on three substantive provisions of SOX that relate to the internal corporate governance of publicly traded companies subject to the SEC’s jurisdiction. These provisions: (1) require corporations to have audit committees that are “independent,”<sup>23</sup> (2) restrict the ability of corporations to obtain consulting services and other non-audit related services from their auditors;<sup>24</sup> (3) prohibit corporate loans to their officers;<sup>25</sup> and (4) require new “certifications” of the integrity of financial statements by the Chief Executive Officers and the Chief Financial Officers of the public companies that issue such statements.<sup>26</sup>

For each of these issues, Romano conducts a thorough review of the literature, concluding that the provisions of SOX represent public policy errors inconsistent with the available statistical evidence in finance and economics.<sup>27</sup> In other words, as Romano observes, the empirical literature “suggests that a case does not exist for the principal corporate governance mandates in SOX.”<sup>28</sup> Thus, SOX is yet another example of a statute that ignores the available social science literature, where the narrow political interests of the politicians supporting the legislation were at odds with the scientific truth.

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20 *Id.* at 1526.

21 *Id.*

22 *Id.* at 1526 (“What is perhaps most striking is how successful policy entrepreneurs were in opportunistically coupling their corporate governance proposals to Enron’s collapse, offering as ostensible remedies for future ‘Enrons’ reforms that had minimal or absolutely no relation to the source of that firm’s demise.”).

23 Sarbanes-Oxley Act, Pub. L. No. 107-204, § 301, 116 Stat. 775-77 (2002) (codified as amended at 15 U.S.C. § 78j-1(m)).

24 Sarbanes-Oxley Act, Pub. L. No. 107-204, § 201, 116 Stat. 745, 771-72 (2002) (codified as amended at Securities Exchange Act § 10A(g), 15 U.S.C. § 78j-1(g)).

25 Sarbanes-Oxley Act, Pub. L. No. 107-204, § 402(a), 116 Stat. 745, 787 (2002) (codified as amended at 15 U.S.C. § 78m(k)).

26 *Id.* § 302, 116 Stat. 745, 777-78 (2002) (codified as amended at 15 U.S.C. § 7241). Other provisions of SOX relate to such things as increased disclosure of off-balance sheet transactions and the creation of a new agency, the Public Company Accounting Oversight Board (PCAOB) to oversee the accounting industry, and protections for whistleblowers.

27 Romano, *supra* note 19, at 1529-53.

28 *Id.* at 1543.

### III. Policy and Political Entrepreneurship

The analysis and evidence in this Essay reveal much about the relevance of scholarship to policymaking. Scholarship is a tool used by entrepreneurial policymakers to justify the launch of salient, high profile, and politically important enforcement initiatives.

Press coverage is an important, but not an essential part of this story. By this I mean that the regulatory response of a particular piece of scholarship in law and finance may occur in response to coverage of the scholarship in the popular press. In other words, the financial press often appears to *translate* the empirical work of economists into terms that regulators and politicians can understand. And, of course, the revelation in the press of abusive practices may incite the public to demand some sort of regulatory intervention. On the other hand, as in the case of insider trading in the Senate, there is no regulatory response to important scholarship, despite widespread press coverage. This is because sometimes inaction is in the interests of the regulators involved. Journalists themselves understand this, of course. The SEC was aware of the evidence that U.S. Senators were abusing insider information to make trading profits, but as one source put it:

[S]urprise, surprise, it seems that they are too busy going after Martha Stewart to have the time to look into evidence that our leaders are using their political power and influence for personal gain. An article in the Philadelphia Inquirer notes slyly, “the SEC may have little incentive to tangle with the Senate, given their relationship. Senators approve members of the SEC’s governing body, as well as the agency’s budget.”<sup>29</sup>

In other words, regulators are opportunistic in deciding when to use, and when to ignore, the results generated by social science research in law and finance. When regulators and policy-makers find it politically expedient to act, as they did in the cases of Arthur Andersen and Enron, scholarship sometimes gets in their way. When this happens, politicians react either by not making the obviously inquiry, or by ignoring the immediately available and highly relevant evidence. On the other hand, when regulators and policymakers find it politically expedient to do nothing, as they have in the case of insider trading by members of Congress, politicians react in the same way: by ignoring the immediately available and highly relevant evidence.

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<sup>29</sup> See Alex Tabarrok, *Senatorial Privilege*, MARGINAL REVOLUTION, Nov. 3 2004, [http://www.marginalrevolution.com/marginalrevolution/2004/11/senatorial\\_priv.html](http://www.marginalrevolution.com/marginalrevolution/2004/11/senatorial_priv.html).

