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Regulation and Scholarship: Constant Companions or Occasional Bedfellows?

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When does original academic scholarship about the law and capital markets influence financial regulation? We suggest that capital market regulators often are driven by scholarly findings in the fields of finance and law to launch important new regulatory initiatives. However, we argue that private political motivations rather than the public interest drive policymakers' decisions about when to heed—and when to ignore—relevant social science evidence. We support our thesis with six examples of situations in which scholarship was, or arguably should have been, the catalyst that launched a major regulatory initiative. In three of these examples policymakers decided to regulate, and in three other contexts policymakers chose to ignore completely equally powerful social scientific evidence.
Introduction

In this Essay, we discuss the puzzling disparity between contexts in which important social science scholarship in economics and finance influences regulation and public policy, and contexts in which it does not. We argue that capital market regulators often are driven by scholarly findings in the fields of finance, law, and economics to launch important new regulatory initiatives. Indeed, without the new insights provided by such scholarship, it is likely that none of the major regulatory initiatives that have altered the landscape of U.S. capital markets over the last decade would have occurred. But cutting-edge scholarship does not always provoke a regulatory response. We argue here that equally important scholarly findings often have different fates. Some are ignored by the regulatory and political powers that be, while others are embraced.

What determines whether scholarship elicits attention or fades into oblivion? We argue that private political motivations rather than the public interest drive policymakers' decisions about when to heed—and when to ignore—important and relevant social science evidence. We demonstrate this thesis using three contexts in which social science evidence in finance was used to launch major regulatory initiatives and three other contexts in which social science evidence that was at least as strong was ignored completely. Investigating these contexts provides a basis for evaluating both the role of independent research and the role of the regulatory and political process in effectuating change.

Within the category of attention-getting research, we discuss three academic studies. The first of these research blockbusters was William Christie and Paul Schultz's article in the Journal of Finance, entitled Why Do NASDAQ Market Makers Avoid Odd-Eighth Quotes?¹ Christie and Schultz's empirical

analysis of price fixing on the NASDAQ market led to massive antitrust and securities enforcement efforts, a private class action lawsuit that generated a settlement of over $1 billion, and an investigation by the U.S. Department of Justice into price fixing that concluded with fines exceeding $1 billion on major U.S. investment banks, 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.

A second piece of scholarship in law and finance that launched a thousand (or more) lawyers into action was work done by Eric Zitzewitz on late trading in U.S. mutual funds.\(^2\) Zitzewitz demonstrated that the prices at which mutual funds bought and sold their own shares from their investors often were inaccurate, providing crafty institutional investors such as hedge funds the ability to transfer wealth to themselves from unsophisticated mutual fund investors.\(^3\) Eliot Spitzer, then an ambitious, entrepreneurial state attorney general, launched an investigation that ultimately involved virtually every major mutual fund complex, and resulted in regulatory settlements of approximately $3 billion, a figure that does not include recoveries by private plaintiffs in civil litigation.\(^4\)

Finally, a third example that illustrates the power of research to change markets is research in 2004 by Erik Lie on the backdating of stock options by public companies.\(^5\) Building on earlier work by David Yermack, Lie demonstrated that stock prices systematically tended to fall just prior to the date on which the options were supposedly granted, but they rose almost immediately after the grants.\(^6\) Equally intriguing, this pattern held even when the changes in the stock price were due to movements in the market and not to information related to the option-issuing company. His conclusion that "at least some of the awards are timed retroactively"\(^7\) resulted in a plethora of Securities and Exchange Commission (SEC), Department of Justice (DOJ), and state enforcement actions; class action lawsuits; and, as of now, at least one criminal conviction.\(^8\)

We will then turn to situations in which equally insightful social science evidence is ignored. The first of the three case studies examined involves 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.

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3 Id.
6 Id.
7 Id. at 812.
Ziobrowski showed 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. In response to the “shocking” news of public officials using their official positions for personal gain, Louise Slaughter (D-NY), the chair of the House Rules Committee, and Brian Baird (D-WA) co-sponsored the Stop Trading on Congressional Knowledge Act. The proposed legislation died in congressional committee.

A second area of research neglect is the government’s criminal prosecution of Arthur Andersen following Enron’s collapse. The government justified its decision to put Arthur Andersen out of business on the grounds that Andersen was significantly more corrupt and susceptible to capture by its clients than its rival auditing firms, notwithstanding the fact that the U.S. Supreme Court ultimately unanimously overturned Andersen’s conviction. Yet a study of 1000 large, public firms from 1997-2001 by Ted Eisenberg and Jonathan Macey published in the Journal of Empirical Legal Studies found no evidence that Andersen’s performance as an auditor was any different from the performance of its peer group of auditing firms. Andersen clients also did not encounter accounting difficulties or experience accounting fraud more often than the clients of other large accounting firms.

A third 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. Roberta Romano demonstrated in her article Sarbanes-Oxley and the

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11 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 these instructions permitted Andersen to be convicted regardless of whether Andersen was aware that it had broken the law. The opinion, authored by Chief 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.
12 In January 2002, the international accounting firm Deloitte & Touche published an audit quality peer review of Andersen that reached empirical results consistent with those reported by Eisenberg and Macey. This peer review is regarded as highly comprehensive. It covered 240 Andersen engagements in 30 offices. The review concluded that “Andersen’s system of accounting and audit quality provided reasonable assurance of compliance with professional standards.” See 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. Gopal V. Krishnan, Did Houston Clients of Arthur Andersen Recognize Publicly Available Bad News in a Timely Fashion?, 22 CONTEMP. ACCT. RES. 165 (2005).
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Making of Quack Corporate Governance\textsuperscript{15} that Sarbanes-Oxley (SOX), 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. This evidence suggested that many of the strictures required by SOX did not actually enhance corporate value or promote investor welfare.

Drawing on these examples, can we predict when scholarship will influence policy and when it will not? In this Essay, we put the preceding discussion in perspective in two ways. First, we argue that scholarship is a tool used by entrepreneurial policymakers to justify the launch of salient, high-profile, politically important enforcement initiatives. Press coverage is an important but nonessential part of this story. Oftentimes it appears that the regulatory response to a piece of scholarship in law and finance occurs in response to coverage of the scholarship in the popular press. But sometimes, as in the case of insider trading in the Senate, there is no regulatory response to important scholarship, despite widespread press coverage.

The finding that regulatory initiatives sometimes, but not always, follow the press coverage of scholarly work supports the second argument in this Essay, which posits that 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 policymakers find it politically expedient to act, as they did in the cases of Arthur Andersen and Enron, scholarship occasionally gets in their way. When this happens, politicians react either by not making the obvious 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. We conclude this Essay by offering some observations on the role of scholars and politicians in effecting change in policy.

I. Scholarship Sometimes Influences Policy

Sometimes scholars successfully influence public policy and sometimes they do not. The truth and power of the work do not seem to be the key determinants of influence. Rather, political expediency appears to be the determinative factor. What follows in this Part of the Essay is the description of a clear pattern. Academics in finance examine data and find an interesting result that can only be explained by controversial (and perhaps illegal) conduct by corporations, investment banks, or other market participants. The research is both scholarly and newsworthy and impresses not only academics, but also journalists in major publications like the \textit{Wall Street Journal} and the \textit{New York}

\begin{footnote}{15} Roberta Romano, \textit{The Sarbanes-Oxley Act and the Making of Quack Corporate Governance}, 114 \textit{YALE L.J.} 1521 (2005). \end{footnote}
Times. From there, the findings get on the agenda of politically ambitious regulators and policymakers, and some—as was most notably the case with Eliot Spitzer, former Attorney General of New York State—use this research to launch major legal and regulatory change.

This progression from working paper to article to the popular press to the regulatory agenda of state and federal bureaucrats reveals a pattern that we consider to be of great importance: scholars really do influence and affect the regulatory agenda in profound ways. In fact, the three illustrations of such effect that appear below represent the major regulatory initiatives of the last two decades.

A. The Not-So-Odd Story of Odd-Eighth Quotes on NASDAQ

Few, if any, articles have ever generated anything remotely resembling the press coverage, the regulatory reaction, or the legal fees produced by the 1994 Christie and Schultz article Why do NASDAQ Market Makers Avoid Odd-Eighth Quotes?.

This article examined trading in the NASDAQ stock market, which, along with the New York Stock Exchange (NYSE), is one of the two principal equity markets in the United States. Like other U.S. equity markets, the NASDAQ stock market competes for listings and order flow by offering an attractive trading venue to purchasers and sellers of equity securities. In short, what Christie and Schultz found was not just price-fixing, but probably the most subtle and successful price fixing scheme since Adam Smith began to worry about the problem in the eighteenth century. To understand how this clever scheme worked, it is necessary to understand how pricing and trading occurred in the NASDAQ stock market.

Equity markets function so that purchasers of a security can buy that security by paying the lowest offering price available in the market, while sellers of a security can sell that security by agreeing to accept the highest bid price available. The available “bid-asked spread” or “spread” in a particular market is simply the difference between the highest available bid price for a security in a market and the lowest available offer price for that security at a particular moment in time.

All else equal, the tighter the bid-asked spread for a particular security, the higher the quality of the market for that security. Unlike the NYSE, which at

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16 Christie & Schultz, supra note 1.
17 In Adam Smith’s immortal words, “People 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.” ADAM SMITH, THE WEALTH OF NATIONS 128 (Random House 1937).
18 Of course, one bidder may offer the highest bid while an entirely different bidder may display the lowest offer price for a particular security at a particular time. At any given time, the organizers of the market combine the best bid price and the best offer price from all participating traders in order to obtain the best spread.
that time employed a specialist system to ensure high-quality markets, in the NASDAQ multiple dealers competed for order flow by quoting competing bid and offer prices. This so-called “multiple dealer market” is thought by many to generate tight, competitive bid-asked spreads as competing dealer firms (for example, Goldman Sachs and Merrill Lynch) attempt to attract “order flow” (customers) by quoting the best markets.\footnote{Eugene Kandel & Leslie M. Marx, NASDAQ Market Structure and Spread Patterns, 45 J. FIN. ECON. 61 (1997).}

At the time Christie and Schultz wrote their article, prices on most equity markets were quoted in fractions (specifically eighths) rather than decimals. Thus, for example, a very good spread would be $100 bid-$100 1/8 offered. An increase in the spread, say to $99 7/8 bid-$100 1/2 offered, would reflect a deterioration in the quality of the market, as buyers would be buying at a higher price on the offered side, and sellers would be selling at a lower price on the bid side.

On the other hand, all else equal, as the bid-asked spread goes up, the profits of the dealers making the markets in the security increase concomitantly. When the bid-asked spread is $100 bid-$100 1/8 offered, a dealer buying on the bid side (at $100) and selling on the offer side (at $100 1/8), will make $12.50 on each 100 shares traded.\footnote{With a spread of $100 bid-$100 1/8 offered, shares will be bought for $10,000 ($100 per share x 100 shares) and sold for $10,012.50 ($100.125 per share x 100 shares).} An increase in the spread, say to $100 bid-$100 1/2 offered, would increase a dealer’s profit from $12.50 to $50.00.\footnote{With a spread of $100 bid-$100 1/2 offered, shares will be bought for $10,000 ($100 per share x 100 shares) and sold for $10,050.00 ($100.50 per share x 100 shares).} Thus, while retail customers prefer narrow spreads, dealer firms that make markets in a particular stock prefer wide spreads, since such wide spreads can translate into higher profits for dealers.

The striking finding of Christie and Schultz was that dealers making markets in stocks traded on the NASDAQ avoided what the authors described as “odd-eighth” price quotes.\footnote{Larry Harris, in his 1991 article Stock Price Clustering and Discreteness, first documented that stock prices tend to cluster on particular price points. Lawrence Harris, Stock Price Clustering and Discreteness, 4 REV. FIN. STUD. 389 (1991). Christie and Schultz built on this work to demonstrate the non-random pattern in price quotes.} In other words, market makers avoided price quotes such as $100 1/8, $100 3/8, and $100 5/8, that is, quotes in which the numerator of the fraction was an odd number such as 1, 3, or 5; price quotes were never just $0.125 (1/8), they were at least $0.25 (1/4). Specifically, Christie and Schultz found that during the time period they examined, odd-eighth quotes were virtually non-existent for 71 of a sample of 100 actively traded NASDAQ securities, including Apple Computer and Lotus Development. After carefully considering and rejecting alternative explanations, Christie and Schultz tentatively suggested that their results implied that NASDAQ dealers were colluding to maintain inappropriately wide, anti-competitive spreads.
Even before the Christie and Schultz results were published, the press began to report on Christie and Schultz's empirical findings that there might be collusion on the NASDAQ. The reaction of market participants was immediate and rather incriminating. On May 27, dealers in Amgen, Cisco Systems, and Microsoft sharply increased their use of odd-eighth quotes. Market quality improved as bid-asked spreads fell by about fifty percent. On May 29, the same tightening of bid-asked spreads was observed for Apple Computer.

Shortly thereafter, the Antitrust Division of the U.S. Department of Justice began an investigation of NASDAQ market makers, and the SEC began an investigation into the trading practices of firms and traders on the NASDAQ. These investigations confirmed Christie and Schultz's conjecture that market participants on the NASDAQ were colluding to increase spreads by eschewing odd-eighth quotes. In addition, the investigations provided a wealth of insight into the way that the price-fixing scheme was enforced. The existence of threats to ostracize or to stop dealing with traders who quoted stock prices in odd eighths was established. Market participants testified that market makers who ignored the prohibition on odd-eighth quotes would receive threatening phone calls. Samira Guennif and Valérie Revest reported that the mere threat of being ostracized within the trading community was sufficient to discourage market makers from violating the social norm against odd-eight quotes. As one equities trader testified, he was "dissuaded from narrowing spreads 'because, many years ago, as a junior trader, I wanted to be accepted.'"

On some occasions, traders resorted to intimidating telephone conversations that were captured on audio tapes:

Trader 1: *Who trades CMCAF in your place without yelling it out?*
Trader 2: ... Sammy

...  
Trader 1: *He’s trading it in eighths and he’s embarrassing your firm.*
Trader 2: *I understand.*
Trader 1: You know, *I would tell him to straighten up his [expletive deleted] act, stop being a moron.*

As a result of these various investigations, the U.S. Department of Justice obtained a $1 billion antitrust settlement for public investors against twenty-
four of the nation’s largest securities firms. There also was a $1.027 billion settlement in the private civil antitrust suit. The SEC’s investigation led to a host of new rules about how broker-dealer firms must handle customers’ orders. In addition, the elimination (or at least the diminution) of price fixing on the NASDAQ led to much more competitive markets. Transaction costs fell dramatically for both large and small traders. Further, automated electronic trading systems that competed with NASDAQ for order flow experienced a sharp increase in quote size.

B. Late Trading and Market Timing

In 2003, Eric Zitzewitz, a young assistant professor at Stanford Business School, examined trading in U.S. mutual funds. His research led to one of the most massive market manipulation investigations of all time. A mutual fund—or investment company, as a mutual fund is sometimes known—is simply a corporation that uses the capital raised from investors to construct a portfolio of investments. The returns to investors in the mutual fund are a straightforward function of the income and capital gains (or losses) on the mutual fund’s investment portfolio.

A strong attraction to investors of certain mutual funds known as “open-end” mutual funds is that investors can sell their mutual fund shares back to the mutual funds. The availability of this option makes the mutual fund investment more liquid for the investor. The value of the mutual fund is determined every day by calculating the value of each of the fund’s investments; the value of each investor’s shares, referred to as the “Net Asset Value” (or NAV), is then the mutual fund value divided by the number of outstanding shares in the mutual fund. Each share owned by an investor can be sold back to the mutual fund for the NAV. Likewise, new or additional investments in the mutual fund are made by buying shares in the mutual fund at the appropriate NAV.

A problem with this system of allowing customers to transact directly with mutual funds for the purchase and sale of their investments in those funds is the risk that NAVs will be calculated inaccurately. When NAVs are calculated inaccurately, wealth may be transferred among mutual fund customers. Generally speaking, a mutual fund will calculate the NAV at the end of each trading day based on the price at which each of the mutual fund’s holdings last traded. However, where a mutual fund portfolio contains investments such as stock in thinly capitalized companies whose shares trade very infrequently, the price used to calculate the NAV on any particular day might be stale and inaccurate.

Suppose, for example, that the last trade in a particular stock in a mutual fund’s portfolio occurred at 11:00 a.m. on a particular day, but that important news relevant to the firm’s share price came out at 3:00 p.m. Under these circumstances the NAV may be inaccurate because it reflects stale prices. Similarly, if the fund contains shares in companies traded on Asian or European stock markets, which, of course, operate in different time zones, pricing might occur at 4:00 p.m. Eastern Time, despite the fact that the most recent trades in those stocks may have occurred as much as fourteen hours earlier. If the fund calculates its NAV using such stale prices, the fund price can be seriously inaccurate. Sophisticated traders who know about the use of stale prices in a mutual fund’s NAV calculation can transfer wealth from unsophisticated mutual fund investors to themselves.

As Zitzewitz points out:

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 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.\(^3\)

Testing this theory empirically, Zitzewitz showed that market timers who bought mutual funds with large international holdings on days when U.S. stock markets went up and sold mutual funds with large international holdings on days when U.S. stock markets went down made very large abnormal returns. These returns not only beat general market indices, but also far exceeded the returns that an investor could receive from investing directly in the funds themselves. Zitzewitz argued that these abnormal returns harmed other fund shareholders, calculating, for example, that in 2001, long-term shareholders lost out to market timers by an average 1.1% of return in broad international funds and even more (2.3%) in regionally focused funds.\(^4\)

Two things distinguish the mutual fund market timing controversy from the NASDAQ odd-eighth quote price-fixing controversy. First, there was a considerable lag between the academic evidence that showed the problems with mutual fund pricing and the regulatory response. Early studies of the problem of pricing inefficiencies in mutual funds emerged in 1998. Zitzewitz’s more pointed study came out in 2003. Second, not only was there substantial evidence that the problem existed, unlike the NASDAQ odd-eighth quote controversy, the SEC clearly was aware of the problems with mutual fund trading.\(^5\) The SEC implored the mutual fund

\(^3\) Zitzewitz, supra note 2, at 246.
\(^4\) Id. at 246-47.
industry to eliminate the possibilities of abuse by using what is known as "fair value pricing," which simply involves imputing the asset prices of securities that have not traded for a certain period of time using their relationships to the price of related but more actively traded securities. 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."37

Meanwhile, on September 3, 2003, the State of New York acted when Attorney General Eliot Spitzer filed a civil lawsuit against the major hedge fund Canary Capital Partners LLC, alleging that Canary had engaged in "late trading" in collusion with Bank of America's Nations Funds.38 Bank of America was charged with permitting Canary to purchase mutual fund shares after the markets had closed at the closing price for that day.39 Canary agreed to pay $40 million to settle the civil charges, without admitting or denying guilt.40 Bank of America compensated the shareholders in its own mutual funds for losses incurred in the funds' transactions with Canary by paying a total of $375 million which was distributed to the mutual funds and to the shareholders in those funds that were said to have been harmed by the bank's late trading.41

Only after Spitzer acted did the SEC begin an enforcement initiative. In the following months, investigations were launched into the trading practices of dozens of mutual fund companies, including Strong, Putnam, Invesco, and Prudential Securities. The heads of Strong and Putnam, two of the largest mutual fund complexes in the U.S., were forced to resign. The Chairman and CEO of Strong were alleged to have engaged in illegal market-timing trading in his own company's mutual funds. Ultimately, virtually every major mutual fund complex was investigated by the SEC, the Attorney General of New York, or both. As a result of these enforcement efforts, late trading ground to a halt. For example, Zitzewitz found that, "as of the fourth quarter of 2004, the average international fund was removing about 70% of the price staleness in its NAVs via fair pricing" as compared with the removal of only about seven percent of stale pricing in 2002.42 Interestingly, however, these enforcement efforts were aware of inefficiencies in the pricing of mutual fund shares that created arbitrage opportunities... 

36 Models to predict mutual fund fair-values, such as ITG's Fair-Value Model, were available to mutual funds at this time, but their adoption was greatly accelerated following the late trading scandal.
37 Mutual Fund Trading Abuses, supra note 35, at 60.
39 Id.
efforts probably were not consistent with applicable SEC regulations, which clearly permit the activities being prosecuted by the regulators.\textsuperscript{43}

C. Options Backdating

In 1997, New York University finance professor David Yermack published a paper on the relationship between stock prices and option grants.\textsuperscript{44} Yermack was interested in the ability of corporate managers to influence their own compensation. Employing a sample of 620 stock option awards made between 1992 and 1994 to chief executive officers of the largest U.S. corporations, 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.

This research raised the question of why share prices went up so often immediately after options were granted to insiders. Perhaps insiders are simply extremely prescient and astute in predicting the future movement of share prices. Or perhaps something more nefarious, like insider trading or market manipulation, was going on. Yermack and others wondered whether corporate insiders used their inside knowledge that their companies were about to experience some positive event and simply arranged to be granted stock options in advance of the public announcement of the good news. Similarly, one might also conjecture that announcements of positive events and results might actually be delayed pending the award of stock options to insiders.

Research in 2004 by Erik Lie was the first to raise the possibility that public companies might be backdating stock option grant dates to enrich their senior executives.\textsuperscript{45} Options backdating is the practice of granting an employee a stock option that permits the grantee to purchase shares at a price 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 problems.

Just as there is nothing illegal about granting an executive an option that permits the purchase of stock at a price below the current market price for that stock, there is nothing illegal per se about options backdating. But the practice does raise important issues regarding the proper tax treatment and appropriate


\textsuperscript{45} Lie, supra note 5.
financial reporting for options with these characteristics. For example, the tax and financial reporting of an option that is granted at below-market prices—or whose exercise price is backdated to a date on which the shares' prices are lower than they are on the grant date—is much different than the tax and financial reporting of a stock option grant where the exercise price is equal to or greater than the market price on the day when the options are granted. Shortly after Lie's research was published, he met with Charles Forelle and James Bandler, Wall Street Journal reporters who won the Pulitzer Prize for public service for reporting on the nature and implications of Lie's research. This reporting, in turn, led to SEC and Department of Justice inquiries and investigations into hundreds of companies that may have awarded backdated stock options to executives, including Apple Computer, Comverse Technology, United Health Systems, and Brocade Communications. The options scandal instigated by Lie's research has led to announcements of earnings restatements, delistings, resignations, expanding federal probes, and even the criminal conviction of a highly respected insider, Gregory Reyes, the CEO of Brocade. Lie extended the earlier work of Yermack by examining options grants by companies that granted options to executives in consecutive years, but not on the same day every year. 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 Lie was the fact that the options grants to lucky executives did not always precede good news about the particular company for which an executive worked. Instead, often options appear 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

46 The exercise price of an option is simply the price at which the securities that underlie the option may be purchased or sold. The exercise price of an option sometimes is referred to as the "strike" price. For example, if someone is given the option to purchase shares in a company for $42.00, then $42.00 is the exercise price for those shares. There is nothing wrong with granting somebody the option to purchase shares at $42.00 at a time when the actual market price for those shares is higher than $42.00, so long as the options grant is properly disclosed and the appropriate tax payments are made by both the company granting the options and the recipient of the options.

47 In 1992, the SEC imposed a rule requiring companies to provide detailed information about the stock options granted to executives. However, the reporting was not sufficiently detailed to allow investigators to determine if a particular option had been backdated. Executive Compensation Disclosure, Securities Act Release No. 6962, Exchange Act Release No. 31,327, [1992 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 85,056 (Oct. 16, 1992).

48 Jodell R. Nowicki, Stock Option Backdating: The Scandal, the Misconception & the Legal Consequences, 23 ST. JOHN'S J. LEGAL COMMENT 251 (2008), available at http://www.stjohns.edu/media/3/6e667ca74ea64a2f87a79057df1a7c7f.pdf.

49 See Eric Dash & Matt Richtel, Backdating Conviction, a Big First, N.Y. TIMES, Aug. 8, 2008, at C1. One of this Essay's authors was an expert witness on corporate governance issues for the defense in this case.

50 Lie, supra note 5, at 802.
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 Lie to the conclusion that "at least some of the awards are timed retroactively." 51

After the initial study, Lie and Randall A. Heron published another paper that examined a change made in 2002 in the way that option grants are reported. 52 This change required companies to report option grants within forty-eight hours. Lie and Heron found that when companies reported options the same day they were granted, there was no pattern of share prices quickly rising. 53 But the pattern continued when companies delayed reporting option grants as permitted by the statute. 54

Lie actually sent a copy of his article to the SEC in early 2004 and later received an acknowledgement stating it was interesting. 55 Then, in March 2004, building on Lie's work, the Wall Street Journal printed a story on the front page that used its own statistical analysis to identify several companies with highly suspicious grant practices. 56 Among other findings, the Wall Street Journal reported several option grants made to Jeffrey Rich, the former chief executive officer of Affiliated Computer Services, Inc. All of these grants ostensibly were made immediately prior to sharp spikes in Affiliated's share price, and 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 ticket. 57

II. Scholarship Sometimes Doesn't Influence Policy

The above discussion raises two possibilities: (1) that press coverage of scholarly findings about possible wrongdoing in the financial markets is what leads to regulatory intervention in response to the scholarship; or (2) that regulators and other policymakers follow up on scholarly findings when it is politically expedient for them to do so, and ignore scholarly findings when it is politically convenient for them to do that. The case studies in this Part of the Essay attempt to resolve this controversy. The first hypothesis, that the press serves as the catalyst for regulatory intervention, can be discarded because we show that regulators will not intervene, even where there is press coverage of a

51 Id.
53 Id. at 271.
54 Id.
particular scholarly finding with clear regulatory implications, when it is not expedient for them to do so. Thus, it appears that the second hypothesis, that regulation serves the political interests of the regulators, is the more plausible explanation for the regulatory responses to the scholarly work discussed in this Essay.

A. Insider Trading by Politicos

Members of Congress have access to material information that will affect share prices. Imagine, for example, that a senator (call him “Bill Frist”) pushes for an asbestos settlement fund and announces that asbestos legislation is one of his top priorities. Imagine further that the prices of companies such as USG Corp. and W.R. Grace, which are involved in asbestos litigation and subject to potential asbestos liability, dramatically increase in value just before Frist’s announcement, which is viewed as very good news for these companies. Should a member of Congress, or a member of his or her staff, be allowed to trade or to tip off other traders prior to the public announcement on the basis of their prior knowledge of this announcement? In fact, members of Senator Frist’s staff were accused of tipping off Wall Street traders prior to Frist’s announcement, thereby causing an unexpected jump in the share prices of USG and W.R. Grace. An article in BusinessWeek stated “the news got to key Wall Street players a day early via a little-known pipeline: a small group of firms specializing in ‘political intelligence’ that mine the capital for information and translate Washington wonk-speak into trading tips.”58 Frist’s office denied that any staff members sold the information.59

In this section of the Essay, we will argue that trading on the basis of material, non-public information by members of Congress not only appears to occur rather often but also has been carefully documented in both empirical studies and by the press. We further will argue that this trading is probably illegal under current law. Even if it weren’t illegal, however, we argue such behavior could, and should, be made illegal. Finally, we argue that the only plausible explanation for why there have been no regulatory efforts to attack the practice of congressional insider trading, and no successful efforts to enact laws to deal with such abuses, is that congressional influence has been used to block such efforts.

In 2004, Ziobrowski and his coauthors examined 6000 disclosure filings submitted by U.S. senators, testing to see how their investments performed in the five-year period 1993-1998.60 Surprisingly, the Ziobrowski study found that senators perform exceedingly well as investors. The results, published in the

59 Id.
60 Ziobrowski et al., supra note 9, at 675.
Journal of Financial and Quantitative Analysis, showed conclusively that members of Congress can and do outperform the market.61 Ziobrowski and his coauthors constructed a portfolio that replicated the transactions in which senators had engaged during the period 1993-1998, finding that the senators outperformed the market in general by an astonishing ninety-seven basis points per month on a trade-weighted basis or about 12% per year over the five-year period of the study.62 In other words, U.S. senators do a much better job growing their own personal portfolios than they do growing the U.S. economy, the growth of which ranged from 3-4.5% during this period. Thus, senators’ personal portfolios outperformed the country’s own economic progress by as much as 400%. U.S. senators also outperformed ordinary folks, of course. A 2000 study of 66,465 U.S. households from 1991 to 1996 showed that the average household’s portfolio underperformed the market by 1.44% a year, on average.63 One group of corporate insiders (senior executives) has been found to outperform by about 5%.64

The only possible explanation for this result is that elected officials are using their superior access to information that will affect markets to make trading profits. Interestingly, Ziobrowski also found that there was no significant difference between the trading profits garnered by Democratic senators and Republican senators. Both groups significantly outperformed the market. The Ziobrowski study also showed that senators were particularly skilled at buying stocks at their lowest prices during a particular trading period and selling them at their highest prices during a particular trading period.65

Unsurprisingly, the fact that the personal stock portfolios of U.S. senators outperformed the market by 12% a year over a five-year period was newsworthy. Sure enough, on February 24, 2004, this news was reported in the financial press.66 In the second paragraph, quoting Ziobrowski, the Financial Times reported that the results of his study “clearly support the notion that members of the Senate trade with a substantial informational advantage over ordinary investors.”67

1. Is Congressional Trading Insider Trading?

The current law of insider trading, as relevant to the issue of whether trading by congressional insiders is illegal, seems quite clear. Under existing law, anyone who trades for personal gain on the basis of information entrusted

61 Id. at 675-76.
62 Id. at 675.
64 Id.
65 Ziobrowski et al., supra note 9, at 675.
66 Brewster, supra note 63.
67 Id.
to him by others in breach of fiduciary duty is in violation of the anti-fraud provision of the law. As developed in a series of cases from *United States v. Carpenter*68 to *United States v. O'Hagan*69 there can be no doubt that trading on information that is misappropriated from one's employer or other entity to whom one owes a fiduciary duty is illegal under SEC Rule 10b-5.70 In other words, taking confidential business information and using it for one's own benefit is actionable.

The fact that the employer never planned to, and could not have traded on the information itself, is irrelevant. For example, in both *Carpenter* and *O'Hagan*, trading was done by employees of companies (a newspaper and a large law firm) that did not have any intention to trade, and could not have traded on the information that formed the basis for the employees' trading. Thus, the fact that senators are trading on information that the U.S. government would not be using itself to make trading profits is irrelevant.

The Supreme Court in *O'Hagan* specifically held that a person who trades in securities for personal profit on the basis of misappropriated confidential information in breach of a fiduciary duty is guilty of violating Section 10(b) of the Securities Act of 1934 and SEC Rule 10b-5. In her majority opinion, Justice Ruth Bader Ginsburg observed that "[t]he 'misappropriation theory' holds that a person commits fraud 'in connection with' a securities transaction, and thereby violates Section 10(b) and Rule 10b-5, when he misappropriates confidential information for securities trading purposes, in breach of a duty owed to the source of information."71

The most important limit on the scope of the legal prohibition on insider trading is that such trading is only illegal when it is done in breach of what the courts describe as a fiduciary duty, that is, a pre-existing duty of trust and confidence. Prior to its ruling in *O'Hagan*, the Supreme Court twice had emphasized that there is no such thing as a generalized fiduciary duty between

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70 Section 10(b) makes it unlawful "[t]o use or employ, in connection with the purchase or sale of any security ... any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors." 15 U.S.C. § 78a (1934). The SEC promulgated Rule 10b-5 pursuant to its authority under Section 10(b) as one of the most widely used legal rules against securities fraud and insider trading. 17 C.F.R. § 240.10b (2008). Adopted in 1942, Rule 10b-5 provides that: [I]t shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or of the mails, or of any facility of any national securities exchange, a) to employ any device, scheme, or artifice to defraud, b) to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, ... or c) to engage in any act, practice, or course of business which operates or would operate as fraud or deceit upon any person, in connection with the purchase or sale of any security.
71 O'Hagan, 521 U.S. at 643.
a trader and her counterparties. Similarly, the Court had stressed that traders do not owe any sort of fiduciary duty to the market as a whole.

The first case rejecting the existence of open-ended fiduciary duties to market participants was a 1980 criminal case involving a financial printer named Vincent Chiarella who, in the course of his employment, identified the concealed names of several tender offer targets from documents he was preparing for printing. Mr. Chiarella's employer, Pandick Press, had been retained by bidding firms to print the documents required to be filed in connection with their tender offers. Mr. Chiarella subsequently bought stock in target firms' shares, netting profits totaling $30,000, on the basis of material, non-public information gleaned during the course of his employment.

Upon discovering Chiarella's trading, the SEC referred the matter to the Department of Justice, asking the DOJ to bring criminal charges against Chiarella for violating SEC Rule 10b-5. Overturning Chiarella's conviction at trial, the U.S. Supreme Court noted that the theory underpinning the government's case was that Chiarella had breached a fiduciary duty to the marketplace. The Supreme Court reasoned that since Chiarella did not owe any kind of duty of trust and confidence, either to the marketplace in general or to the particular counterparties with whom he traded, he could not be convicted of violating any such duty.

The second case rejecting open-ended fiduciary duties was Dirks v. SEC. In 1983, the Supreme Court, in a civil lawsuit brought by the SEC against a stock market analyst called Raymond Dirks, reaffirmed that some breach of a preexisting duty of trust and confidence is necessary to sustain a claim of illegal insider trading.

In the context of the present inquiry, two facts about the Chiarella and Dirks cases deserve special attention. First, in both cases, the SEC pushed a far more expansive interpretation of the rules against insider trading than the Supreme Court was willing to accept. In Chiarella, the SEC pressed the theory that Rule 10b-5 was breached whenever somebody with an informational advantage exploited that informational advantage by using it to make trading profits in the securities markets. The Supreme Court rejected this theory because they rejected the SEC's assertion that traders owe any sort of generalized duty to market participants.
Second, the argument that private citizens owe no generalized fiduciary duties to capital market participants does not automatically imply that federal officials, particularly elected officials, owe no such duties. In particular, elected officials who serve on committees and, in their official capacities, receive material nonpublic economic information and information about specific industries, companies, or economic sectors, would clearly seem to owe a "generalized" fiduciary duty to the public, including the securities markets. On the other hand, an argument can be made that insider trading by members of Congress is not illegal. For example, a former SEC Enforcement Division official has been quoted in the *Wall Street Journal* as saying

[i]f a congressman learns that his committee is about to do something that would affect a company, he can go trade on that because he is not obligated to keep that information confidential . . . He is not breaching a duty of confidentiality to anybody and therefore he would not be liable for insider trading.  

The idea that people elected to Congress owe duties of trust and confidence to the public seems right to us. The narrower view attributed to the SEC official in the above paragraph may accurately reflect current law. But the theory that members of Congress are barred under current law from engaging in insider trading is clearly plausible. What we find interesting is that the SEC is so willing to stretch the contours of the rules against insider trading when prosecuting private citizens (as we saw in their unsuccessful efforts in both *Dirks* and *Chiarella*), but is unwilling to make an appeal for a far more modest stretch of the rules in the context of elected public officials.

The idea that the SEC—the administrative agency ostensibly in charge of protecting the nation's capital markets—would not at least attempt to formulate a rule, much less an enforcement strategy, to combat insider trading by federal elected public officials seems particularly strange in light of the clear public policy problems involved in this sort of trading. In particular, elected officials have incentives to introduce legislation for personal gain. As Fred McChesney has pointed out:

> Politicians routinely submit legislative bills that would take money from various persons or groups, and then withdraw them once (constitutionally protected) payments are made. These bills go by different names. In California they are called “juice bills,” referring to their ability to squeeze those who would lose from taxation unless they pay up. In Illinois, they are called “fetcher bills,” for their ability to fetch money from otherwise victimized taxpayers who pay to avoid the greater financial pain. “Milker” bill is another term used, for obvious reasons.  


It stands to reason that if politicians can submit bills for the purpose of attracting contributions (and other forms of cash), they also can submit bills for the purpose of making trading profits. In other words, the ability of elected officials to profit on the basis of material nonpublic information creates perverse incentives for these officials, and introduces innumerable distortions and the potential for immeasurable harm in a legal system in which public trust and confidence is critical.

2. Proposed Legislation: The Stop Trading on Congressional Knowledge (STOCK) Act

With the SEC unwilling to take any sort of initiative against insider trading by senators and other congressional officers, Congress has been left to police itself. Not surprisingly, this effort has not been a success.

In May 2007, the Stop Trading on Congressional Knowledge (STOCK) Act was introduced. The bill, if enacted, would make it illegal for congressional and federal workers to use information obtained in the course of their official duties to trade stock on the basis of that information. In addition, the STOCK Act seeks to regulate what are known as “political intelligence” companies, which collect material nonpublic information from Capitol Hill and sell it to professional money managers, particularly hedge funds.

The STOCK Act would amend the Securities Exchange Act of 1934 and the Commodities Exchange Act to direct both the SEC and the Commodities Futures Trading Commission to prohibit the purchase or sale of either securities or commodities for future delivery by a person in possession of material nonpublic information regarding pending or prospective legislative action if the information was obtained: (1) knowingly from a member or employee of Congress; (2) by reason of being a member or employee of Congress; or (3) from other federal employees.

The STOCK Act would also amend the Code of Official Conduct of the Rules of the House of Representatives to prohibit designated House personnel from disclosing material nonpublic information relating to any pending or prospective legislative action involving either securities of a publicly-traded company or a commodity if such personnel has reason to believe that the information will be used to buy or sell securities or commodities. In addition, the STOCK Act would amend the Ethics in Government Act of 1978 to require formal disclosure of certain securities and commodities futures transactions to either the Clerk of the House of Representatives or the Secretary of the Senate, and it would change the Lobbying Disclosure Act of 1995 to subject political intelligence activities, contacts, firms, and consultants to its registration, reporting, and disclosure requirements.

83 Id.
This bill has foundered in committee since it was introduced. It has not even been scheduled for debate in either house, much less voted on. The most plausible explanation for the failure of this legislation is that self-interested congressional officials do not want to put an end to the lucrative trading opportunities that are made available to them when they receive important nonpublic information in their official capacities. And with the SEC's being happily complicit with this behavior, why should Congress upset the apple cart?

B. Arthur Andersen: Outlier or Scapegoat?

Enron and other corporate financial scandals focused attention on the accounting industry in general and on Arthur Andersen in particular. Some of the governmental responses and initiatives to the wave of Enron-style corporate collapses reflect the view that Andersen, Enron's auditor, was an outlier among accounting firms. In particular, the government, in its regulatory response to Enron's collapse, took the view that Enron's accounting firm, Arthur Andersen, was significantly more corrupt and susceptible to capture than its rival auditing firms.

A key aspect of the policy response to Enron was the criminal prosecution of Andersen. Interestingly, one commentator observed, "the 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." This observation, in our view, reflects a rather naïve acceptance of the controversial assumption that the government is always right. The Justice Department's prosecution of Arthur Andersen reflects only that the government believed (or asserted that it believed) that Andersen deserved to be singled out for special treatment. The government might have been wrong. Or it might have been politically motivated and influenced to take action in the wake of the public outcry over the failure of Enron.

The bringing of criminal charges led directly to the demise of Andersen, notwithstanding the fact that Andersen's conviction ultimately was overturned unanimously by the U.S. Supreme Court. The prosecution of Andersen eliminated for all time one of the very few firms capable of auditing the largest

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86 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 Accounting Firm, ending the firm's ability to do business. Andersen never returned to business, even though its conviction was overturned in 2005.
U.S. public corporations. Jonathan Macey and Ted Eisenberg developed a
direct test of this "special" status of Arthur Andersen by examining whether
Andersen's performance was in fact worse than that of other accounting firms.
The metric they applied measured whether Andersen's clients issued and filed
erroneous financial statements that had to be restated more often than the other
large auditing firms.\(^8\)

The stakes of accurately describing Andersen's performance in auditing
public companies were high. Only a few accounting firms have the capability
to audit multiple large, public corporations. Removing a major player from
such a thin market has had dramatic implications for the public securities
markets as well as for the accounting industry. Independent of Andersen's
particular performance, the stakes of understanding the pattern of financial
restatements are also high. 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 from the performance of its peer auditing
firms.\(^8\) Andersen's clients did not restate their financial results at a
significantly different rate than the other major accounting firms during this
period. During the period of 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. But, contrary to the hypothesis that Andersen was special, there
was no significant rise in Andersen's share of the increased number of
restatements, and 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.
Whether these findings mean that Andersen was not as bad as it was perceived
to have been, or whether they mean that the other big accounting firms were
worse than was generally thought, is a matter of interpretation for the reader. In
either case, these results raise serious doubts about the prosecutorial judgment
that brought Arthur Andersen's existence to an end. Financial restatements
trigger significant negative market reactions, and their frequency can be viewed
as a measure of accounting performance. Based on the financial restatement
activity of approximately 1000 large, public firms from 1997 through 2001, and
controlling for client size, region, time, and industry, there is no evidence that
Andersen's performance significantly differed from that of other large
accounting firms.\(^9\)

These findings, of course, raise the question of why the government, so
attuned to the scientific evidence in the odd-eighth quotes investigation, the
market timing cases, and the options backdating cases discussed above, chose

\(^8\) Eisenberg & Macey, supra note 13.
\(^8\) Id.
\(^9\) Id.
to ignore precisely the same sort of evidence in the case of the prosecution against Arthur Andersen. The evidence in this paper strongly suggests the following explanation: the government brings cases when it is in the officials’ interest to do so, regardless of the social science evidence.

C. The Evidence for Sarbanes-Oxley: Is There a Quacker in the House?

In the summer of 2002 Congress enacted one of the most profound pieces of economic legislation in history. The definitive study of this legislation has been done by Roberta Romano, and in this section we largely apply her analysis and insights to the theory developed here about when policymakers ignore social science research and when they pay close attention to it.\(^\text{90}\)

Romano’s research demonstrates that Sarbanes-Oxley 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 provisions.”\(^\text{91}\) 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.”\(^\text{92}\) In other words, the new provisions of SOX imposed reforms that the existing social science literature had found to be ineffective. Moreover, although Congress passed this legislation in the wake of the Enron scandal, substantive provisions of SOX did not even have a nexus to the problems within Enron that led to the firm’s collapse.\(^\text{93}\)

Romano focused on four provisions of SOX that relate to the internal corporate governance of publicly traded companies subject to the SEC’s jurisdiction.\(^\text{94}\) These provisions (1) require corporations to have audit committees that are “independent”;\(^\text{95}\) (2) restrict the ability of corporations to obtain consulting services and other non-audit related services from their auditors;\(^\text{96}\) (3) prohibit personal loans to their officers;\(^\text{97}\) and (4) require new “certifications” of the integrity of financial statements by the chief executive

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\(^\text{90}\) Romano, supra note 15.
\(^\text{91}\) Id. at 1526.
\(^\text{92}\) Id.
\(^\text{93}\) Id. ("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.").
\(^\text{94}\) Id. at 1529-40.
\(^\text{96}\) Id. at § 10A (2006).
\(^\text{97}\) Id. at § 78m (2006).
officers and the chief financial officers of the public companies that issue such statements.\textsuperscript{98}

For each of these issues, Romano conducted a thorough review of the literature, concluding that these provisions of SOX represent public policy errors inconsistent with the available statistical evidence in finance and economics.\textsuperscript{99} In other words, as Romano observed, the empirical literature “suggests that a case does not exist for the principal corporate governance mandates in SOX.”\textsuperscript{100}

1. Independent Audit Committees

Romano found that, in general, independent boards of directors do not improve the performance of corporations. More pertinently, Romano found four studies that examine the relationship between the composition of corporate audit committees and firm performance.\textsuperscript{101} In none of these studies were the authors able to find “any relation between audit committee independence and performance, using a variety of performance measures including both accounting and market measures as well as measures of investment strategies and productivity of long-term assets.”\textsuperscript{102}

In addition to examining whether independent audit committees improve corporate performance, Romano also found a host of studies (fifteen in all) that examined whether firms with independent audit committees tend to experience less financial misconduct than firms with audit committees that have management representatives.\textsuperscript{103} As Romano observed, “[t]he compelling thrust of the literature on the composition of audit committees... does not support the proposition [reflected in SOX’s provisions] that requiring audit committees to consist solely of independent directors will reduce the probability of financial statement wrongdoing or otherwise improve corporate performance.”\textsuperscript{104}

\begin{itemize}
\item \textsuperscript{98} Id. at § 7241 (2006).
\item \textsuperscript{99} Romano, supra note 15, at 1529-53.
\item \textsuperscript{100} Id. at 1543.
\item \textsuperscript{101} Id. at 1530 & n.23 (citing April Klein, Firm Performance and Board Committee Structure, 41 J.L. & ECON. 275, 287-301 (1998); Nikos Vafeas & Elena Theodorou, The Relationship Between Board Structure and Firm Performance in the UK, 30 BRIT. ACCT. REV. 383, 398 (1998); Charlie Weir et al., Internal and External Governance Mechanisms: Their Impact on the Performance of Large UK Public Companies, 29 J. BUS. FIN. & ACCT. 579, 606 (2002); and Julie Cotter & Mark Silvester, Board and Monitoring Committee Independence, ABACUS, June 2003, at 211, 228-29).
\item \textsuperscript{102} Romano, supra note 15, at 1530.
\item \textsuperscript{103} Id. at 1530-31 & n.24.
\item \textsuperscript{104} Id. at 1533.
\end{itemize}
2. The Prohibition Against Non-Audit (Consulting) Services by Auditors

Because the provision of non-audit services to certain public companies by the accounting firms responsible for auditing those same public companies was the subject of controversy for several years prior to SOX, there was already an extensive literature investigating these issues when SOX was being debated. In particular, numerous research studies attempted to measure whether companies that received non-audit services in addition to audit services from their accounting firms were more likely to experience a decline in audit quality than firms that did not receive non-audit services from the accounting firms performing their audits. Reviewing twenty-five studies on the provision of non-audit services by accounting firms, Romano found that the empirical evidence supporting the proposition that there is no connection between audit quality and the provision of non-audit services is "compelling."

3. The Prohibition Against Loans to Corporate Officers

In looking at a third dimension of SOX, Romano did not find any empirical research on the question of whether loans to corporate officers harm corporate performance or compromise companies' financial reporting. This paucity of research is largely due to this issue not having been particularly salient prior to the passage of SOX. Romano did identify a study that analyzed whether corporate loans to insiders were used to facilitate the purchase of stock by the insiders. That study found that the bulk of the insider loans in the sample studied "were made to assist in stock purchases and stock option exercises." It is well known that share ownership by insiders is a highly effective way to align the interests of managers and shareholders. To the extent that insider loans are used to facilitate share purchases and the exercise of stock option grants, they increase firm value by improving managers' incentives to maximize firm value. As Romano noted, "[b]ecause executive loans in many ways appear to serve their purpose of increasing managerial stock ownership, thereby aligning managers' and shareholders' interests, the blanket prohibition of executive loans in SOX is self-evidently a public policy error."

4. The Certification of Financial Results

Consistent with the above results, Romano argued that those studies relevant to SOX's new requirements regarding certification (for example, that

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105 See id. at 1606-10, Tbl.5.
106 Id. at 1536-37.
107 Id. at 1539.
108 Id. Other loans were used simply to assist insiders in relocating. Id.
109 Id.
corporate CEOs and CFOs must certify that the financial reports filed by their companies do not contain material misstatements or omissions and fairly present the firm's financial conditions and the results of operations) find that for most firms certification or noncertification was irrelevant because they did not provide investors and other capital market participants with any new information.\textsuperscript{110} While the evidence here is not conclusive, Romano is clearly correct to suggest that a superior policy approach would have been to make certification optional in order to allow companies to use the special certification procedure required by SOX if they elected to do so. This approach would have permitted firms that received no benefit from certifications to avoid the significant compliance costs associated with the certification regime.\textsuperscript{111}

In her research, Romano argues that SOX was enacted as emergency legislation at a time when the market was plummeting and the media obsessing over corporate scandals.\textsuperscript{112} Legislators reacted to public outrage, ignoring the increasingly unpopular business community and adopting policy at odds with scholars' recommendations in an election year. Essentially, the SOX framers ignored the relevant evidence because the evidence indicated that what they proposed to do would, in all likelihood, be highly ineffective and the political climate made it crucial that they take "decisive" action.

III. Concluding Remarks

A. The Political Science of Law and Public Policy

That scholarship can inform public policy is the good news from our analysis; that it often does not is the bad news. We have argued above that a critical factor in determining which outcome prevails is the political expediency that attaches to the events in question. But political expediency itself can be influenced by the popular opinion of the day, and this in turn is affected by the dissemination of information about events and market behaviors. Thus, the linkage between scholarship and public policy may be more circuitous than it is linear. In this concluding section, we discuss more generally the process by which law and public policy evolve.

B. Scholarship and Crisis as Catalysts for Policy Change

We have discussed above several examples where scholarship has led to important—and in some cases dramatic—market change. An interesting feature

\textsuperscript{110} Id. at 1542. Interestingly, for a subset of companies, specifically bank holding companies and other "informationally opaque" companies, early certifications provided useful information to the market.

\textsuperscript{111} Id. at 1543.

\textsuperscript{112} Id. at 1528.
of each of these examples is that the resultant change in public policy was an unforeseen offshoot of academic research on interesting and important features of the financial markets. We think it safe to say that none of these authors could have predicted the impact their work would have on the markets (or on the consulting dollars it would generate for their colleagues).

But it is fair to say that academic research can, and should, play an important role in moving the public policy agenda. While the specific examples above illustrate this point, there are many other instances in which scholarship informs public policy. The Global Settlement\(^{113}\) separating underwriting and research in investment banking was informed by a plethora of academic works showing biases in financial analysts' recommendations with respect to the stocks their firms underwrote.\(^ {114}\) Yet, it was only in the aftermath of the tech stock bubble that this research began to have impact. Similarly, there was abundant academic research highlighting the moral hazard problems connected with the ill-fated Garn-St. Germain Act,\(^ {115}\) which many believe precipitated the savings and loan (S&L) crisis, but this too was ignored until the entire S&L industry was in shambles.\(^ {116}\) The research highlighting almost identical moral hazard problems in the structure of Fannie Mae and Freddie Mac is but another recent example of this pattern.\(^ {117}\) These instances suggest that it may not be what you say so much as when you say it that matters for influencing public policy.

That policy change is typically enacted in the aftermath of crises leads us to a final observation regarding the role of scholarship in affecting regulation. Scholarship may play its role by illuminating problem areas, but to actually


\(^ {114}\) See, e.g., Roni Michaely & Kent L. Womack, Conflict of Interest and the Credibility of Underwriter Analyst Recommendations, 12 REV. FIN. STUD. 653 (1999).

\(^ {115}\) The Garn-St. Germain Depository Institutions Act of 1982, 12 U.S.C. § 226 (2000) deregulated the Savings and Loan industry. Significant provisions of the Act: (1) authorized banks and savings institutions to offer a new account, the “money market” deposit account, which was a transaction account with no interest rate ceiling designed to permit banks to compete with money market mutual funds; (2) gave savings and loan associations the authority to make commercial loans; (3) gave federal regulatory agencies the authority to approve, for the first time, interstate acquisitions of failed banks and savings institutions; (4) permitted savings associations to increase their consumer lending, from 20% to 30% of assets, and to expand their dealer lending and floor-plan loan financing; (5) raised the ceiling on direct investments by savings institutions in nonresidential real estate from 20% to 40% of assets, and also allowed investment of 10% of assets in education loans for any educational purpose, and up to 100% of assets in state and municipal bonds; (6) allowed state chartered lenders to offer the same kinds of alternative mortgages permitted nationally chartered financial institutions; (7) raised the legal lending limit for national banks from 10% to 15% of capital and surplus; and (8) permitted the use of adjustable rate mortgages. See also President Reagan, Remarks on Signing the Garn-St Germain Depository Institutions Act of 1982 (Oct. 15, 1982), available at http://www.reagan.utexas.edu/archives/speeches/1982/101582b.htm.

\(^ {116}\) For a summary of work on these issues see David H. Pyle, The U.S. Savings and Loan Crisis, in 9 HANDBOOKS IN OPERATIONS RESEARCH AND MANAGEMENT SCIENCE: FINANCE 1105 (R.A. Jarrow et al. eds., 1995).

change regulatory policy, policymakers need to pay attention. But what determines the regulatory agenda, or to put it more succinctly, when a research finding is accorded attention or oblivion, is less obvious. Certainly, it is far easier, and much less risky, for policymakers to react to problems rather than act to prevent them. And it is this tendency that results in some academic studies becoming learned footnotes in history rather than precursors for proactive market change.

If regulators tend to heed studies and promote regulatory initiatives out of political gain, it follows that they will be more likely to act in the face of popular attention and outrage. Major financial crises produce headlines, public concern, and calls for reform; furthermore, these crises promise media attention and public support to reward regulators who might claim to solve the problem. The timeless desire to gain political clout and public support might best explain the government’s highly public scapegoating of Arthur Andersen in the wake of Enron’s collapse, as well as Eliot Spitzer’s investigation of mutual fund trading after Ziobrowski’s studies made headlines.

When regulators and policymakers provide a role for research to influence the regulatory agenda, rather than have research findings simply serve as a convenient backdrop to decisions undertaken in times of crisis, then policymaking will be improved. We think a necessary first step in this process is to recognize the important linkages between scholarship and regulation. We hope our Essay can play a role in effectuating this change.