

# The Impact of Insider Trading on the Market Price of Securities: Some Evidence from Recent Cases of Unlawful Trading

David Rosenfeld\*

*The government's recent crackdown on insider trading has revived an old debate about the wisdom of insider trading prohibitions. Opponents of insider trading laws often argue that insider trading contributes to market efficiency because it brings information to the market which gets incorporated into the price of the security, leading to more accurate pricing in a more timely fashion. Although this argument is intuitively appealing and has some empirical support, a look at some recent cases of known insider trading reveals situations where the market fails to detect the presence of informed traders, and even instances where the stock price moves in the contrary direction. This indicates that insider trading does not always bring information to the market, which undermines what is perhaps the most cogent argument for ending insider trading prohibitions.*

I. INTRODUCTION .....	66
II. THE GOVERNMENT CRACKDOWN ON INSIDER TRADING .....	70
A. Insider Trading at SAC Capital.....	71
1. Wyeth .....	72
2. Elan .....	73
B. Insider Trading at Level Global and Diamondback.....	74
1. Dell's First Quarter 2008 Earnings Announcement .....	76
2. Dell's Second Quarter 2008 Earnings Announcement .....	76
3. NVIDIA's First Quarter 2009 Earnings Announcement .....	78
C. Insider Trading at Galleon .....	79
1. Trading in the Securities of Akamai .....	80
2. Trading in the Securities of ATI Technologies.....	81
3. Trading in the Securities of Google .....	84
D. The Octopussy.....	86
1. Trading in the Securities of 3Com.....	86
2. Trading in the Securities of Axcan .....	87
E. The Expert Network Case.....	88

---

\* Associate Professor, Northern Illinois University College of Law. I would like to thank Megan Yentes and Lu Harmening for their excellent research assistance. Full disclosure: I was previously co-head of Enforcement for the Securities and Exchange Commission's New York office. In that capacity, I worked on a number of the cases discussed in this Article. However, the information contained herein is based entirely on publicly available sources. The views expressed herein are solely my own.

1. Trading in the Shares of Omnivision.....	88
2. Trading in the Shares of Marvell .....	89
III. OTHER RECENT EXAMPLES OF UNLAWFUL INSIDER TRADING.....	89
A. Trading in the Shares of Informatica .....	90
B. Trading in the Shares of Acme Packet .....	90
C. Trading in the Shares of Nexen.....	91
D. Trading by an Investment Banker in Advance of Various Deals .....	92
1. Trading in the Shares of Westway I .....	92
2. Trading in the Shares of Westway II .....	93
3. Trading in the Shares of Titanium.....	94
4. Trading in the Shares of Evercore .....	94
E. Trading in Advance of Various Takeover Announcements.....	95
1. Trading in the Shares of Brink's Home Security.....	96
2. Trading in the Shares of Graham Packaging Company .....	96
3. Trading in the Shares of PharMerica .....	96
IV. WHY THE MARKET MAY NOT ALWAYS DETECT INFORMED TRADING .....	97

### Abstract

*The government's recent crackdown on insider trading has revived an old debate about the wisdom of insider trading prohibitions. Opponents of insider trading laws often argue that insider trading contributes to market efficiency because it brings information to the market which gets incorporated into the price of the security, leading to more accurate pricing in a more timely fashion. Although this argument is intuitively appealing and has some empirical support, a look at some recent cases of known insider trading reveals situations where the market fails to detect the presence of informed traders, and even instances where the stock price moves in the contrary direction. This indicates that insider trading does not always bring information to the market, which undermines what is perhaps the most cogent argument for ending insider trading prohibitions.*

### I. INTRODUCTION

The government's recent crackdown on insider trading has revived an old debate about the wisdom of insider trading prohibitions. Opponents of insider trading laws like to point out that insider trading is at most a victimless crime because, in an impersonal market, counterparties to the insider trader are neither induced to trade nor deceived in any way by the insider, and may not suffer any concrete harm.<sup>1</sup> But some opponents of insider trading

---

1. See, e.g., HENRY G. MANNE, INSIDER TRADING AND THE STOCK MARKET 93–110 (1966) (discussing effects of insider trading on outsiders); Robert W. McGee & Walter E. Block, *Information, Privilege, Opportunity and Insider Trading*, 10 N. ILL. U. L. REV. 1, 6 (1989) (noting that an insider does not induce or deceive unknown counterparty); David D. Haddock & Jonathan R. Macey, *A Coasian Model of Insider Trading*, 80 NW. U. L. REV. 1449, 1452–54 (1987) (arguing that outsiders sometimes gain and sometimes lose when there are insider trading prohibitions); Stephen M. Bainbridge, *Incorporating State Law Fiduciary Duties into the Federal Insider Trading Prohibition*, 52 WASH. & LEE L. REV. 1189, 1238–39 (1995) (arguing that insider trading does not harm investors). For the view that insider trading does have specific victims, even if they cannot be readily identified,

laws, starting with Henry Manne in the 1960s, go a step further and argue that insider trading actually has beneficial consequences, most notably that insider trading brings information to the market which gets incorporated in the price of the security, resulting in more accurate pricing on a more timely basis.<sup>2</sup> Opponents of insider trading prohibitions argue, in other words, that insider trading promotes market efficiency.<sup>3</sup>

The market efficiency argument has gained considerable acceptance, even by many who are otherwise opposed to insider trading. Rather than disputing the efficiency argument, proponents of insider trading prohibitions tend instead to rely on a fairness argument—that it seems unfair to allow some parties to take advantage of information that is not equally available to other market participants<sup>4</sup>—which gets translated into a rough policy prescription: people will not participate in the market if they feel that some players

see William Wang, *Stock Market Insider Trading: Victims, Violators and Remedies—Including an Analogy to Fraud in the Sale of a Used Car With a Generic Defect*, 45 VILL. L. REV. 27 (2000) (describing adverse effects of insider trading).

2. See generally MANNE *supra* note 1; see also Dennis W. Carlton & Daniel R. Fischel, *The Regulation of Insider Trading*, 35 STAN. L. REV. 857 (1983) (arguing that insider trading is beneficial). As Manne more recently put it: “Insider trading not only does no harm, it can have significant social and economic benefits including a more accurate pricing of stock.” Henry G. Manne, *Busting Insider Trading: As Pointless as Prohibition*, WALL ST. J. (Apr. 28, 2014), <https://www.wsj.com/articles/henry-g-mannebusting-insider-trading-as-pointless-as-prohibition-1398720501>. There has been a lot of commentary in the same vein recently in the popular press. See, e.g., Carol Roth, *It’s Time to Legalize Insider Trading*, CNBC (June 18, 2014), <https://www.cnbc.com/2014/06/17/its-time-to-legalize-insider-trading-wall-street-commentary.html>; Doug Bandow, *Free the Insider Traders: Stop Treating Market Efficiency Like a Crime*, FORBES (Feb. 10, 2014), <https://www.forbes.com/sites/dougbandow/2014/02/10/free-the-insider-traders-stop-treating-market-efficiency-like-a-crime/#48aac5d04961> (arguing insider trading promotes market efficiency); James Altucher, *Why Insider Trading Should be Legal*, MARKETWATCH (May 17, 2011), <https://www.marketwatch.com/story/why-insider-trading-should-be-legal-2011-05-17>; John Carney, *The Case Against the Case Against Insider Trading*, CNBC (Sept. 25, 2013), <https://www.cnbc.com/id/100903736> (reporting the movement in favor of legalizing insider trading); Tim Harford, *What’s so Scary About Insider Trading?*, FIN. TIMES (Nov. 1, 2013), <https://www.ft.com/content/6a23c7e2-40e3-11e3-ae19-00144feabdc0>.

3. A market is generally considered efficient when prices fully reflect all available information. See, e.g., Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549, 554 (1984). It should be noted that Gilson and Kraakman argue that, generally speaking, insider trading is an inefficient way to communicate information to the market. *Id.* at 630–32.

4. The “fairness” argument goes back to the early days of insider trading law. See *In re Cady, Roberts & Co.*, Exchange Act Release No. 6668, 40 SEC Docket 907 (Nov. 8 1961) (pointing to the “inherent unfairness” of insider trading which provides an unfair advantage to the holder of the information and adopting a “disclose or abstain” rule); *SEC v. Tex. Gulf Sulphur Co.*, 401 F.2d 833, 848 (2d Cir. 1968) (noting the ban on insider trading is meant to ensure that “all investors trading on impersonal exchanges have relatively equal access to material information”). The Supreme Court, however, rejected the equal access to information argument in *Chiarella v. United States*, 445 U.S. 222, 232 (1980). The Second Circuit recently underscored this point in *United States v. Newman*, 773 F.3d 438, 448–49 (2d Cir. 2014), *cert. denied* 136 S. Ct. 242 (2015), *partially abrogated by Salman v. United States*, 137 S. Ct. 420 (2016) (“Although the government might like the law to be different, nothing in the law requires a symmetry of information in the nation’s securities markets.”). At present, the legal prohibition on insider trading, which is rooted in the anti-fraud provisions of the federal securities laws, is predicated on the breach of a specific duty that is owed either to the company and its shareholders, or to the source of the information. *United States v. O’Hagan*, 521 U.S. 642, 651–52 (1997). For a brief history of the development and abandonment of the fairness test, see Donald Langevoort, *From Texas Gulf Sulphur to Chiarella: A Tale of Two Duties* (Georgetown Univ. Law Ctr., Scholarship@Georgetown Law, 2017), <https://ssrn.com/abstract=3091189>. For a recent defense of the “fairness” argument see Ian B. Lee, *Fairness and Insider Trading*, 2002 COLUM. BUS. L. REV. 119 (2002). For a recent critique, see Stephen M. Bainbridge, *Equal Access to Information: The Fraud at the Heart of Texas Gulf Sulphur* (UCLA Sch. of L., L. & Econ. Res. Paper Series No. 17-14, 2017), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3014977](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3014977).

have an unfair edge, that the playing field is not level, and that if they withdraw, liquidity will dry up and capital formation will be impeded.<sup>5</sup> Proponents of insider trading prohibitions argue, in other words, that long term market integrity is more important than any possible short-term market efficiency.<sup>6</sup>

The idea that insider trading may be market efficient because it leads to more accurate pricing of securities certainly has intuitive appeal: most people recognize that trading sends signals to the market, and that buying or selling pressure will lead to a rise or fall in the price of the security. Trading by those in possession of material non-public information is therefore likely to push the stock price in the direction of the trading, particularly if the trading is voluminous, which should bring the price of the security closer to the price at which it will trade when the information becomes public. This is particularly true if the market is somehow able to “decode” the identity of the trader, or even just infer that the trading must be informed.

There are several empirical studies supporting this simple intuitive insight. For example, Lisa Meulbroek conducted an empirical analysis of SEC insider trading cases over a 10-year period to gauge the impact of illegal insider trading on the market price of

---

5. See, e.g., LOUIS LOSS ET AL., 7 FUNDAMENTALS OF SECURITIES REGULATION 465 (4th ed. 2012) (“Equity arguments in favor of a proscription of trading while in possession of material nonpublic information are implicitly based on a *public confidence* or *integrity of the market* theory: More investors will invest in a market without such trading than a market where it is permissible.”). The proposition that “insider trading undermines investor confidence in the fairness and integrity of the securities markets” lies at the heart of the SEC’s strong enforcement campaign against insider trading. *Insider Trading*, INVESTOR.GOV, <https://www.investor.gov/additional-resources/general-resources/glossary/insider-trading> (last visited Aug. 29, 2018). The Supreme Court endorsed this view in *O’Hagan*, 521 U.S. at 658 (“Although informational disparity is inevitable in the securities markets, investors likely would hesitate to venture their capital in a market where trading based on misappropriated nonpublic information is unchecked by law.”) See also Victor Brudney, *Insiders, Outsiders, and Informational Advantages Under the Federal Securities Laws*, 93 HARV. L. REV. 322, 343–46 (1979) (arguing that insider trading undermines confidence in the markets); Lawrence M. Ausubel, *Insider Trading in a Rational Expectations Economy*, 80 AM. ECON. REV. 1022 (1990) (reformulating the “confidence rationale” to argue in favor of insider trading regulation). But some commentators have questioned whether insider trading really undermines investor confidence. See, e.g., Stephen M. Bainbridge, *Insider Trading in 3 ENCYCLOPEDIA OF LAW ECONOMICS* 772, 786 (Boudewijn Boukaert & Gerrit De Gees eds., 2000) (noting that insider trading scandals have not led investors to flee the markets); John P. Anderson, *Insider Trading and the Myth of Market Confidence*, 57 WASH. U. J.L. & POL’Y. (forthcoming 2018) (arguing that insider trading does not undermine market confidence).

6. See, e.g., Ausubel, *supra* note 5 (arguing that the efficiency provided by investor confidence in the markets outweighs any efficiency provided by insider trading); Andrew Stoltman, *Legalize Insider Trading? That’s Ridiculous*, CNBC (June 18, 2014, 12:17 PM), <https://www.cnbc.com/2014/06/18/legalize-insider-trading-thats-ridiculous.html> (noting that any market efficiency gains are offset by loss of investor confidence). There are, of course, other arguments in favor of prohibiting insider trading, such as protecting property rights in information. See, e.g., Jonathan R. Macey, *From Fairness to Contract: The New Direction of the Rules Against Insider Trading*, 13 HOFSTRA L. REV. 9 (1984); Stephen M. Bainbridge, *Incorporating State Law Fiduciary Duties into the Federal Insider Trading Prohibition*, 52 WASH. & LEE L. REV. 1189 (1995); Stephen M. Bainbridge, *Regulating Insider Trading in the Post-Fiduciary Duty Era: Equal Access or Property Rights?*, (UCLA Sch. of Law. Law-Econ. Research Paper No. 12-08, 2012) [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2054814](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2054814). For a critique of the property rights argument, see Roberta S. Karmel, *The Relationship Between Mandatory Disclosure and Prohibitions Against Insider Trading: Why a Property Rights Theory of Inside Information is Untenable*, 59 BROOK. L. REV. 149 (1993). For a good summary of the various arguments for and against the regulation of insider trading, see STEPHEN M. BAINBRIDGE, *INSIDER TRADING LAW AND POLICY* 175–211 (2014). [hereinafter BAINBRIDGE, INSIDER TRADING].

the securities in question.<sup>7</sup> The study showed that “insider trading is associated with immediate price movements and quick price discovery” and that the “extent to which insider trading aids in price discovery” could be “substantial.”<sup>8</sup> Specifically, Meulbroek found that the “cumulative abnormal return on insider trading days is half as large as the price reaction to the public revelation of the information on which the insider trades.”<sup>9</sup> Meulbroek concluded from this that “the stock market detects informed trading and impounds a large proportion of the information into the stock price before it becomes public.”<sup>10</sup> Meulbroek’s study suggested that trading volume and “other” trade-specific characteristics such as trade size, direction, and frequency, signal the presence of an informed trader to the market.”<sup>11</sup> This and other empirical studies led Manne himself to conclude that “there is almost no disagreement that insider trading does *always* push the price of a stock in the correct direction.”<sup>12</sup>

But does it really? A look at some recent cases of actual, known insider trading suggests that the answer may not be quite so clear cut. There are, to be sure, many instances where the insider trading does correlate with the stock price moving in the “correct” direction—that is in the direction of the price at which the stock will trade when the information becomes public. But there are also many examples where the stock price does not move much at all, even when the insider trading volume is substantial; examples where the price fluctuates in ways that do not appear to correlate with market detection of informed trading; and even examples where the stock price moves in the opposite or “incorrect” direction.

In Parts II and III of this Article, I look at several recent insider trading cases to see whether the trading had any readily discernable impact on the market price of the security. I have not aimed to be comprehensive or to replicate the large-scale data analytics that have informed other studies. Nor have I engaged in a statistical analysis to determine whether, on the whole, there are aberrational patterns associated with insider trading in any

7. Lisa K. Meulbroek, *An Empirical Analysis of Illegal Insider Trading*, 47 J. FIN. 1661 (1992). Other empirical studies have also found that insider trading impacts the price of securities. *See, e.g.*, Bradford Cornell & Erik R. Sirri, *The Reaction of Investors and Stock Prices to Insider Trading*, 47 J. FIN. 1031, 1053–54 (1992); Margaret Ryznar & Frank J. Sensenbrenner, *The Law and Economics of Insider Trading*, 50 WAKE FOREST L. REV. 1155, 1156 (2015). But there is at least one study that has questioned whether insider trading has any *different* effect on stock price movements than trading by uninformed traders. *See* Sugato Chakravarty & John J. McConnell, *Does Insider Trading Really Move Stock Prices?*, 34 J. FIN. & QUANTITATIVE ANALYSIS 190, 191 (1999) (analyzing trading by confessed insider trader Ivan Boesky in advance of a corporate takeover and finding no difference in price effect between Boesky’s purchases and those of non-informed purchasers).

8. Meulbroek, *supra* note 7, at 1663.

9. *Id.*

10. *Id.*

11. *Id.*

12. Henry G. Manne, *Insider Trading: Hayek, Virtual Markets, and the Dog that Did Not Bark*, 31 J. CORP. L. 167, 169 (2005) (emphasis added). Some older empirical studies failed to detect any impact of insider trading on market prices, leading some scholars to question the market efficiency argument. *See, e.g.*, Stephen M. Bainbridge, *The Insider Trading Prohibition: A Legal and Economic Enigma*, 38 U. FLA. L. REV. 35, 44–45 (1986) (citing studies questioning whether insider trading communicates inside information to the market); Marcel Kahan, *Securities Laws and the Social Costs of “Inaccurate” Stock Prices*, 41 DUKE L. J. 977, 1001–05 (1992) (questioning whether repeal of insider trading prohibitions would lead to more accurate pricing of securities). A few commentators still express their doubts. *See, e.g.*, LOSS ET AL., *supra* note 5, at 475–76. (questioning whether insider trading has a significant impact on market prices and doubting that decoding the identity of insiders systematically occurs); BAINBRIDGE, *INSIDER TRADING*, *supra* note 6, at 177–83 (questioning market efficiency theory).

particular stock. Rather, I have looked at specific real-world examples to see whether there is any market movement that correlates with the insider trading and that could be attributed to it. My modest conclusion is that insider trading does not “always” move the price of a stock in the correct direction. While there are numerous factors that may affect stock prices, the absence of price movement, or price movement in the opposite than expected direction, is a good indication that the market has failed to detect the presence of informed trading. Confounding price movements indicate that insider trading does not always bring information to the market and suggest a possible weakness in the market efficiency theory of insider trading, particularly in its more dogmatic iterations. In Part IV of this Article, I briefly suggest some reasons why the market may not always pick up the presence of an informed trader and draw out the implications for the law and policy of insider trading regulation.

## II. THE GOVERNMENT CRACKDOWN ON INSIDER TRADING

Over the past several years, the Securities and Exchange Commission (SEC) and the Department of Justice have engaged in a widespread crackdown against illegal insider trading primarily at hedge funds.<sup>13</sup> Before suffering some setbacks, the US Attorney’s Office for the Southern District of New York had obtained at least 85 criminal convictions and guilty pleas,<sup>14</sup> and the SEC obtained civil judgments against the same individuals and several additional entities. In a controversial, and subsequently limited, decision, the Second Circuit overturned two of the convictions, and a few others were set aside as a result of that ruling.<sup>15</sup> Nonetheless, the government’s extensive crackdown is noteworthy for a number of reasons. First, it ensnared several large, well-known, and very well capitalized hedge funds, including SAC Capital and Galleon, and numerous prominent market and financial professionals, including Raj Rajaratnam, the billionaire former head of Galleon, and Rajat Gupta, a former Board member of Goldman Sachs and the one-time worldwide head of McKinsey & Company, a global consulting firm. Second, the amount of insider trading at issue was extensive, with very large positions being taken and extraordinary sums being earned as a result. It was, in other words, precisely the kind of high-volume trading, emanating from sources known to be highly sophisticated, that would seem most likely to send signals that would be picked up by other market participants. To the extent that insider trading promotes market efficiency, these cases should be textbook

---

13. I use the term “insider trading” as shorthand for ‘trading on the basis of material non-public information in violation of a fiduciary duty, or similar duty of trust and confidence, that is owed either to the company and its shareholders or to the source of the information.’ For the current legal framework, and how insider trading captures not only company insiders who trade in the shares of their own company (generally referred to as the Classical Theory of insider trading) but also outsiders who obtain information about a company as a result of a confidential relationship, even if that relationship is with someone who has no ties to the company (generally referred to as the Misappropriation Theory of insider trading), see *United States v. O’Hagan*, 521 U.S. 642, 651–52 (1997).

14. See Emily Stewart, *Bharara Firing Marks Exit of Tough Enforcer on Wall Street, Insider Trading*, THE STREET (Mar. 13, 2017), <https://www.thestreet.com/amp/story/14038188/1/>. The government’s remarkable streak of 85 convictions without a loss was broken when Rengan Rajaratnam, the younger brother of Raj Rajaratnam, was acquitted after trial. See Christopher M. Matthews, *Jury Acquits Rengan Rajaratnam in Insider-Trading Case*, WALL ST. J. (July 8, 2014, 7:52 PM), <https://www.wsj.com/articles/jury-acquits-rengan-rajaratnam-in-insider-trading-case-1404845184>.

15. *United States v. Newman*, 773 F.3d 438, 455 (2d Cir. 2014), *cert. denied*, 136 S. Ct. 242 (2015), *partially abrogated by* *Salman v. United States*, 137 S. Ct. 420, 421–22 (2016).

examples. Finally, the lengthy prison sentences that were handed down after convictions—Rajaratnam, for example, received an 11-year prison term—reflect the view, apparently widely held among judges in the Southern District of New York, that insider trading, far from being victimless, is a serious crime with serious consequences. To the extent that insider trading is actually beneficial in some way, these sentences would appear to be truly unfair and draconian.<sup>16</sup> A look of what actually occurred in these cases may help to dispel some of that unease.

#### *A. Insider Trading at SAC Capital*

In February 2014, Mathew Martoma, a portfolio manager at CR Intrinsic, an affiliate of SAC Capital, was found guilty after trial in an insider trading scheme that netted some \$276 million in profits and losses avoided.<sup>17</sup> This was “the largest insider trading case ever charged by the SEC,”<sup>18</sup> and the US Attorney’s Office called it “the most lucrative” insider trading scheme ever.<sup>19</sup> Martoma was sentenced to nine years in prison, a reflection of the extraordinary gains tied to the unlawful conduct.<sup>20</sup> His conviction was recently upheld (for the second time) by a divided panel of the Second Circuit Court of Appeals.<sup>21</sup> The evidence at trial showed that Martoma traded on material non-public information concerning the negative results of a clinical trial for an Alzheimer’s drug being jointly developed by Elan

---

16. See, e.g., John Carney, *Should Insider Trading Really be Considered a Crime?*, CNBC (Dec. 20, 2013, 1:45 PM), <https://www.cnbc.com/2013/12/20/should-insider-trading-really-be-considered-a-crime.html> (arguing that insider trading laws are not really about protecting investors, but rather express a moral revulsion, and asking whether a trader should “really be facing a possible sentence of 85 years for violating our moral sentiments”); see also Miriam Baer, *Insider Trading’s Legality Problem*, 127 YALE L.J. FORUM 129 (2017) (advocating a tiered or degreed system of crimes for insider trading).

17. The case involving Martoma was one of several cases brought by the SEC and the U.S. Attorney’s Office involving trading at various SAC Capital affiliates. At least eight SAC Capital affiliated traders were criminally convicted or pled guilty to charges of unlawful insider trading, and the firm settled criminal and civil charges by paying a total of \$1.8 billion in disgorgement, forfeiture, and penalties. Press Release, SEC, SEC Charges Hedge Fund Firm CR Intrinsic and Two Others in \$276 Million Insider Trading Scheme Involving Alzheimer’s Drug (Nov. 20, 2012), <https://www.sec.gov/news/press-release/2012-2012-237htm> [hereinafter *SEC Hedge Fund Scheme*]. see Press Release, U.S. Attorney’s Office, S.D.N.Y., Manhattan U.S. Attorney Announces Guilty Plea Agreement with SAC Capital Management Companies (Nov. 4, 2013) <https://www.justice.gov/usao-sdny/pr/manhattan-us-attorney-announces-guilty-plea-agreement-sac-capital-management-companies>; Press Release, SEC, CR Intrinsic Agrees to Pay More than \$600 Million in Largest-Ever Settlement for Insider Trading Case (Mar. 15, 2013), <https://www.sec.gov/news/press-release/2013-2013-41htm>. See also Cohen, Investment Advisers Act Release No. 4307, (Jan. 8, 2016) (imposing remedial sanctions pursuant to § 203(f) of the Investment Advisers Act). Steven Cohen, the founder and owner of SAC Capital, was sued by the SEC in connection with Martoma’s trading and subsequently settled the case by agreeing to the entry of an order finding that he failed reasonably to supervise Martoma. Cohen was temporarily barred from association in a supervisory capacity with any broker, dealer or investment adviser.

18. *SEC Hedge Fund Scheme*, *supra* note 17.

19. See Press Release, U.S. Attorney’s Office, S.D.N.Y., Statement of Manhattan U.S. Attorney Preet Bharara on the Charges Against Former Hedge Fund Portfolio Manager Mathew Martoma for Most Lucrative Insider Trading Scheme Ever Charged (Nov. 20, 2012), <https://www.justice.gov/archive/usao/nys/pressreleases/November12/MartomaStatementPR.php?print=1>.

20. See Michael Bobelian, *Martoma’s Nine-Year Sentence Reflects Outsized Insider Trading Gains*, FORBES (Sept. 9, 2014, 12:31 PM), <https://www.forbes.com/sites/michaelbobelian/2014/09/09/martomas-nine-year-sentence-reflects-outsized-insider-trading-gains/#60075486216d>.

21. The conviction was first upheld in *United States v. Martoma*, 869 F.3d 58 (2d Cir. 2017). The same Second Circuit panel subsequently amended (and significantly altered) the original opinion, but still upheld the conviction, over a strongly worded dissent. See *United States v. Martoma*, 894 F.3d 64 (2d Cir. 2018).

Corporation and Wyeth. Martoma obtained advance information about the clinical trial results from a doctor who was a consultant to the drug companies.

What stands out about this case, in addition to the huge illicit gains the scheme generated, is the size of the trading positions that were involved. Prior to receiving the negative news about the drug trials, Martoma, CR Intrinsic, and an affiliated adviser, had built substantial long positions in both Elan and Wyeth stock, consisting of 10.5 million shares of Elan (in the form of Elan ADRs), worth approximately \$365 million, and 7.1 million shares of Wyeth stock, “worth over \$335 million.”<sup>22</sup> After receiving the negative news from the doctor who was evaluating the results prior to their public release, the traders first liquidated their entire long positions and then established significant short positions, consisting of 4.5 million shares of Elan (again in the form of ADRs) and 3.3 million shares of Wyeth.<sup>23</sup> All told, the trading, which took place over seven consecutive trading days, involved the sale of over 15 million shares of Elan stock and over 10.4 million shares of Wyeth stock, worth in the aggregate over \$960 million.<sup>24</sup>

So how did the market react to these enormous sales? On the whole it’s a mixed bag, with the market reacting as one might expect in some respects, and either shrugging off the trading or reacting against expectations in other respects.

### 1. Wyeth

Between July 21, 2008, and July 29, 2008, CR Intrinsic and an affiliate sold over 10.4 million shares (including sales of shares they previously owned and short sales). This trading was significant in terms of the overall market, constituting about 11.3% of the total reported volume during those seven trading days (91,543,000).<sup>25</sup> Overall, during this time period the market moved exactly as one might expect, that is, in the “correct” direction, declining from 47.14 at the open on July 21 to 45.11 at the close on July 29 (the last trading day before the announcement), a decline of 4.3%, which is perhaps not overwhelming given the size of the trades, but is certainly significant.<sup>26</sup> Moreover, the downward trend was consistent, with only a few minor blips (for example the stock hit an intraday high of 47.62 on July 22), and the stock closed down on six of the seven trading days.

But on closer inspection, the evidence may be less conclusive than it first appears. According to the SEC’s complaint, the majority of the trading took place on just one day, July 29. On that day the defendants sold a total of 6.1 million shares of Wyeth stock (out of the total 10.4 million shares they sold overall), first selling the remaining shares they owned, achieving a zero balance, and then selling short approximately 3.3 million shares.<sup>27</sup>

The 4.3 million shares they sold on the six previous days are certainly consequential, representing almost 6% of the total reported volume during that time (71.957 million). During those six days the price went from 47.14 to 44.77, a decline of just over 5%.<sup>28</sup>

---

22. Complaint at ¶ 45, SEC v. CR Intrinsic, 164 F. Supp. 3d 433 (S.D.N.Y. 2016) (No. 12-CV-8466), 2012 WL 5856296 [hereinafter CR Intrinsic Complaint].

23. *Id.* ¶¶ 48–49.

24. *Id.* ¶¶ 48–50.

25. Except as otherwise indicated, all market data (price, volume) used in this article is taken from Bloomberg.

26. The decline stands out more in comparison to broader market indices during the same time frame: the Dow was down .84%; the S&P 500 was up .1%; Nasdaq was up 1.2%; and the health care sector was up .7%.

27. CR Intrinsic Complaint, *supra* note 22, ¶ 49.

28. During the same time period, the Dow was down 3.1% and the S&P 500 was down 2.1%.



But on July 29 the defendants sold 6.1 million shares (worth about \$270 million), which amounted to an astounding 31.14% of the reported volume that day (19.586 million), a total volume that was about twice the previous day's volume of 9.775 million; yet the market reacted with a collective yawn: the stock opened at 45.25 and closed at 45.11, a decline of 14 cents or just .3%!<sup>29</sup>

It is of course possible that the sales on the six preceding days sent a signal to the market that there was an informed trader, and perhaps the decline during that time fully reflected the information that was being conveyed, although that seems a bit unlikely, particularly given the large decline that followed the announcement. After the announcement, the stock opened at 39 on July 30 and closed at 39.74, a decline of 11.9% from the previous day's close of 45.11.

In any event, if insider trading sends signals to the market, the enormous size of the trades that took place on July 29 should have indicated to the market that the information possessed by the insider still had value. This is particularly true if insider trading is detected through volume spikes: the trading volume on July 29 was 19.586 million shares, twice the previous day's volume, and a 63% increase over the average volume of 11.99 million shares over the previous six days. The 6.1 million shares sold by informed traders that day represented nearly a third of the total reported volume, and accounted for a significant percentage of the spike from the previous day's volume. Yet the market did not appear to notice.

## 2. *Elan*

The trading in Elan is equally confounding. Between July 21 and July 29, CR Intrinsic and an affiliated adviser sold 15 million shares of Elan (in the form of ADRs), including 10.5 million shares they held prior to that time and 4.5 million shares they sold short, for gross proceeds of over \$500 million.<sup>30</sup> Overall, during that time the stock price moved as one might expect, that is in the "correct" direction, declining from 34.79 at the open on July 21 to 33.75 at the close on July 29 (just before the announcement), a decline of 2.9%, which again is not overwhelming in light of the size of the trading, but is still significant.<sup>31</sup>

But once again, a closer look reveals some oddities. First, on three of the seven trading days the price actually rose from the open.<sup>32</sup> Second, even as the price declined overall, it showed intermediate fluctuations and bounce-backs. For example, we know from the SEC complaint that the defendants managed to sell the 10.5 million shares they had previously held over a four-day period at an average price of 34.21.<sup>33</sup> The complaint also states that they had achieved a zero balance by July 25, so presumably those four trading days were July 21 through July 24.<sup>34</sup> Over those four days, overall the price declined—as would be expected—going from 34.79 at the open on July 21 to 32.34 at the close on July 24, a significant decline of 7%. In addition, more than half of the sales during this period (5.5

---

29. The small change was roughly in line with the health care sector which was up .2% that day, although the Dow was up 2.3% and the S&P 500 was up 2.1% that day.

30. CR Intrinsic Complaint, *supra* note 22, ¶ 48.

31. Market data for Elan is taken from Yahoo Finance. Screen shot on file with the author.

32. Including the first trading day (July 21) and the last trading day (July 29). The stock was also up on July 25.

33. CR Intrinsic Complaint, *supra* note 22, ¶ 46.

34. *Id.* ¶ 48.

million shares), appear to have taken place on one day, July 22.<sup>35</sup> The 5.5 million shares represented more than half the total reported volume that day (10,308,600). That day the price also declined, as would be expected, going from 35.25 to 33.99, a decline of 3.57%. However, the next day the stock opened at 34.90, and hit an intraday high of 35 (recapturing almost all the loss from the previous day), before closing down at 33.54.

More surprising still is what happened after the four-day period during which the informed traders liquidated their 10.5 million share long position. They continued selling over the next three days, accumulating a short position of 4.5 million shares, but during this period the stock price actually went *up*, going from 32.34 at the close on July 24 to 33.75 at the close on July 29, a gain of 4.35%.<sup>36</sup> The selling volume here was not insignificant either: the 4.5 million shares represented 14.6% of the total reported volume over the three day period (30,727,700). Yet, the market failed to pick up on the informed trading, and on the whole during this three-day period, the stock price moved *opposite* from the expected direction. The gains are all the more baffling in that the stock even outperformed the market as a whole by a considerable margin during the same time period: the Dow was up .4%, the S&P 500 was up .8%, and the health care sector was up .7%.

Finally, on July 29 (the last trading day before the announcement), a day we know the defendants made additional short sales,<sup>37</sup> the stock again closed *up*, rising from 32.57 at the open to 33.75 at the close (3.6%).<sup>38</sup> Moreover, that day the stock hit an intraday high of 34.57, which was just 22 cents (.6%) below the 34.79 price at the open on July 21, the day the defendants started this massive selling. This again suggests that, to whatever degree the market picked up the presence of informed trading at various times during this seven-day period, the information was never truly incorporated into the price of the stock.

As previously noted, the overall decline of 2.9% over the seven-day period was not insignificant, but not overwhelming in light of the size of the trades: 15 million shares sold comprising over 20% of the total reported volume during that seven-day period (74,656,200). It also pales in comparison to the drop in price after the announcement: on July 30, the stock opened at 21.74 and closed at 19.63, a decline of 41.8% from the previous day's close of 33.75. To the extent the insider trading sent a signal to the market, it was extremely weak, never fully incorporated, and moved the market by a small fraction of the value of the information the defendants were trading on, leaving them to reap gains and avoid losses of some \$220 million.<sup>39</sup>

### B. Insider Trading at Level Global and Diamondback

In another case involving a vast insider trading conspiracy, the SEC and criminal authorities brought charges against several individuals in connection with unlawful trading at two hedge funds, Diamondback Capital Management and Level Global. In December 2012, Todd Newman of Diamondback and Anthony Chiasson of Level Global were

---

35. *Id.* ¶ 47.

36. Once again, there were intermediate fluctuations: on July 28 the stock opened at 33.85 and hit an intraday high of 34.60, before closing down at 31.90.

37. CR Intrinsic Complaint, *supra* note 22, ¶ 48; Government's Sentencing Memorandum at 5, United States v. Martoma, No. S1 12 Cr. 973, 2014 WL 4490897 (S.D.N.Y. 2014)

38. Once again, the stock even outperformed the market as a whole: the Dow was up 2.3% and the S&P 500 was up 2.1% that day.

39. CR Intrinsic Complaint, *supra* note 22, ¶ 58. This figure includes about \$6.6 million the defendants made from trading options during this period.

convicted of trading on the basis of material non-public information concerning three events: two Dell quarterly earnings announcements and an Nvidia earnings announcement. Both were sentenced to lengthy prison terms.<sup>40</sup> The convictions were later overturned on appeal, in a decision by the Second Circuit that may have consequences for future prosecutions, particularly in cases involving remote tippees.<sup>41</sup> Although the court held that the evidence at trial was insufficient to satisfy the legal standard for an insider trading conviction—because the government failed to show that the traders were aware of the source of the information or knew that the insiders who provided the information had obtained a personal benefit in return—the court did not dispute that the information that was traded on was material and non-public.<sup>42</sup> As a result, the impact of the trading on the market price of the securities is still worth examining.

Once again, what stands out in these cases is the size of the positions that were taken and the extraordinary profits that were obtained as a result, totaling well over \$70 million.<sup>43</sup>

---

40. See Sheelah Kolhatkar, *Anthony Chiasson Learns That \$68 Million Gets You 6 1/2 Years*, BLOOMBERG BUSINESSWEEK (May 13, 2013, 3:46 PM), <https://www.bloomberg.com/news/articles/2013-05-13/anthony-chiasson-learns-that-68-million-gets-you-6-1-2-years>; Walter Pavlo, *Fmr Diamondback Mgr Todd Newman Gets 54 Months in Prison*, FORBES (May 2, 2013, 1:20 PM), <https://www.forbes.com/sites/walterpavlo/2013/05/02/fmr-diamondback-mgr-todd-newman-get-54-months-in-prison/#1bbcb4f210a5>.

41. Tippees are persons who receive information from an insider (a tipper) and trade on that information; remote tippees are persons further down the chain who have no direct contact with the tipper and may have little or no knowledge concerning the source of the information. See generally Kathleen Coles, *The Dilemma of the Remote Tippee*, 41 GONZ. L. REV. 181 (2006) (describing tippees and remote tippees). In the *Newman* case, the Second Circuit held “that to sustain an insider trading conviction against a tippee, the Government must prove each of the following elements beyond a reasonable doubt: that (1) the corporate insider was entrusted with a fiduciary duty; (2) the corporate insider breached his fiduciary duty by (a) disclosing confidential information to a tippee (b) in exchange for a personal benefit; (3) the tippee knew of the tipper’s breach, that is, he knew the information was confidential and divulged for personal benefit; and (4) the tippee still used that information to trade in a security or tip another individual for personal benefit.” U.S. v. Newman, 773 F.3d 438, 450 (2d Cir. 2014), cert. denied, 136 S. Ct. 242 (2015). The *Newman* decision was partially overturned in *Salman v. U.S.*, 137 S. Ct. 420 (2016), and further repudiated by the Second Circuit in its first opinion in U.S. v. Martoma, 869 F.3d 58 (2d Cir. 2017). *Salman* held that a tangible benefit with real pecuniary value is not required; a reputational benefit or a gift of information to a trading relative or friend satisfies the personal benefit test. *Salman*, 137 S. Ct. at 420. In the first *Martoma* opinion, the Second Circuit held that a tipper does not have to have a “meaningfully close personal relationship with the tippee” for liability to attach. *Martoma*, 894 F.3d at 83. The same Second Circuit panel later significantly amended that opinion (while still upholding the conviction in that case) and held that a showing of a “meaningfully close personal relationship” is required per the Circuit’s *Newman* precedent. *United States v. Martoma*, 894 F.3d 64 (2d Cir. 2017). The issue may be heading for Supreme Court review. In addition, what the government must show concerning the knowledge that the tippee had about the tipper’s benefit (whether actual, reputational, or a gift) is still an open question. As a practical matter, showing that the tippee knew that the tipper divulged the information for personal benefit will be very difficult in most cases, and going forward tippees will be careful to insulate themselves from such knowledge, which is irrelevant to their trading decision, while still trying to obtain the inside information they desire.

42. The court did not dispute that the information originated from insiders at Dell and Nvidia. See *Newman*, 773 F.3d at 443.

43. *Id.* The inside information was also shared with other hedge fund managers who traded on the basis of the information. In particular, in December 2013, Michael Steinberg a portfolio manager at Sigma Capital, a SAC Capital affiliate, was found guilty of insider trading on the basis of the same Dell and Nvidia information, as well as information concerning a few other Dell earnings announcements. Steinberg received the information indirectly from someone at Diamondback. The conduct is described in the Complaint at ¶¶ 26–78, SEC v. Steinberg, No. 13-CV-2082 (S.D.N.Y. 2003) [hereinafter Steinberg Complaint]. See also Complaint at ¶¶ 3–8, SEC v. Dosti & Whittier Tr. Co., No. 13-CIV-3897 (S.D.N.Y. June 7, 2013) (describing additional trading in Dell

What happened to the price of the stocks as a result of all this insider trading? As detailed below, the price moved in the expected direction once, in the opposite direction once, and somewhere in the middle the third time.

### *1. Dell's First Quarter 2008 Earnings Announcement*

Chiasson and Newman traded, or caused others to trade, on the basis of material non-public information obtained indirectly from a Dell insider, that Dell would have better than expected earnings when it announced its first quarter results on May 29, 2008. Chiason and Newman began receiving the information in early May, and received updated and more precise information around the middle of the month when both started trading.<sup>44</sup> In all, Level Global accumulated more than 1.7 million Dell shares before the announcement, along with some call options, and Diamondback accumulated a net long position of 450,000 shares.<sup>45</sup> The Level Global trading was all buys and was accomplished over five trading days; the Diamondback trading was a combination of buys and sells over eight trading days. On almost all of the trading days, the market moved as would be expected, going up when the insiders were buying. The market even went down on the days Diamondback was selling. For example, on May 16, Diamondback purchased 475,000 shares of Dell (valued at over \$10 million at the market close), and Level Global purchased 750,000 shares (valued at approximately \$15.5 million).<sup>46</sup> That day the stock price went from 20.74 at the open to 21.31 at the close, a gain of 2.7%. On May 20, when Diamondback sold 350,000 shares, the price dipped from 21.06 to 20.57.

Overall, during the period from May 13 to May 29, the stock moved in the expected direction, going from 19.44 at the open on May 13 to 21.81 at the close on May 29, an increase of 12.1%. Broader market indices were down during this period (Dow down 1.75%; S&P 500 down .43%), so the abnormal returns are significant.<sup>47</sup> After the close of the market, Dell announced earnings that substantially exceeded analysts' consensus expectations. Following the announcement, the stock opened at 23.5 on May 30 and closed at 23.06, an increase of 5.73% from the previous day's close. Level Global reaped over \$4 million in profits from these trades, and Diamondback reaped over \$1 million in profits.<sup>48</sup> In other words, in this case, during a period of considerable insider trading, the market price moved in the "correct" direction, and the movement was itself significant: the pre-announcement run-up accounted for about two-thirds of the total price increase between the time the insider trading started and the post-announcement close.

### *2. Dell's Second Quarter 2008 Earnings Announcement*

Chiasson and Newman also traded on inside information concerning Dell's second

---

and Nvidia shares based on the same source).

44. See Sealed Complaint ¶ 40c, *United States v. Newman*, No. 12-MJ-00124 (S.D.N.Y. Jan 17, 2012) (on file with author).

45. Government Exhibit 2501-DA, *United States v. Newman*, 12-CR-00121 (S.D.N.Y. 2015) (on file with author); Government Exhibit 2501-LA, *United States v. Newman*, 12-CR-00121 (S.D.N.Y. 2015) [hereinafter Government Exhibit 2501-LA] (on file with author).

46. Complaint ¶¶ 53–57, *SEC v. Adondakis*, No. 12-CV-00409(HB) (S.D.N.Y. 2012), 2012 WL 130086 [hereinafter *Adondakis Complaint*].

47. The technology sector, however, was up 1.6%.

48. *Adondakis Complaint*, *supra* note 46, ¶¶ 63–64.

quarter 2008 earnings announcement. This time the information was that Dell's gross profit margin for the quarter was going to be significantly worse than analysts were expecting.

According to the SEC's complaint, the defendants began receiving information about the gross profit margin in early July 2008, and continued to receive updates from the inside source as more definite information became available.<sup>49</sup> Between July 8 and August 28, Level Global accumulated a net short position of 8.6 million Dell shares (while also buying put options and selling Dell shares they previously owned), and Diamondback accumulated a net short position of 700,000 Dell shares over roughly the same period.<sup>50</sup> After the market closed on August 28, Dell announced a 17% decline in quarterly profit.<sup>51</sup> The following day the stock opened at 22.26 and closed at 21.73, a decline of 13.8% from the previous day's close. Level Global reaped over \$53 million in profits from its trades, while Diamondback made approximately \$2.8 million.<sup>52</sup>

What happened to the stock price during this time? Overall, contrary to expectations, the price went *up*. On July 8, the earliest date of the Level Global insider trading, the stock opened at 22.84. Although there were some intermediate fluctuations, on August 28, the last trading day before the announcement, the stock opened at 25.97, hit an intraday high of 26.04, and closed at 25.21, up 10.37% from the open on July 8. Moreover, these gains even outpaced broader market indices by a significant margin: the Dow was up 4.3%, the S&P 500 was up 3.9%, Nasdaq was up 7.4%, and the technology sector was up 3.19% during the same period.

Looking at the specific trading data for Level Global is also revealing. Chiasson executed short sales on 20 days.<sup>53</sup> On ten of those days the price went down (as would be expected); on the other ten it went *up* (contrary to expectations).<sup>54</sup> Although, the price declined on the four days with the largest sales, it went up on three days where the short sales amounted to at least 500,000 shares. Moreover, there does not appear to be any correlation between the volume and the direction of the stock price: some of the insider trading days where the market moved contrary to expectations were higher volume days than those when the market moved as expected.

Finally, the period of most concentrated trading had little or no impact on the market: after receiving updated information from his source, Chiasson sold short 5.1 million shares between August 18 and August 28.<sup>55</sup> On August 18, the stock opened at 25.22 and it closed

---

49. *Id.* ¶ 67.

50. *Id.* ¶¶ 91–92. The trading at Diamondback is a bit peculiar because Newman, the Diamondback trader, traded in and out of the stock on a couple of occasions before finally building his 700,000-share short position. Newman began to trade on the inside information on July 3, selling short 225,000 shares. The stock went up that day going from 22.35 at the open to 22.81 at the close, and even hit an intraday high of 23.10. The stock continued to rise, which apparently spooked Newman, who closed out his entire short position, a practice he repeated later on. The net short position he held before the announcement was built between August 14 and August 28.

51. *Id.* ¶ 88.

52. *Id.* ¶¶ 95–96. The insider trading in these stocks was actually more extensive than detailed here, as others obtained the information ultimately from the same source and traded on it. See Steinberg Complaint, *supra* note 43, ¶¶ 53, 56–57 (alleging that Steinberg began accumulating a substantial short position in Dell on August 18, 2008 and that another portfolio manager who received the inside information closed out a 600,000-share long position on August 26).

53. The trading information is contained in Government Exhibit 2501-LA, *supra* note 45. The total short sales were 9 million shares, but there were also two purchases to cover, on separate days, totaling 400,000 shares.

54. *See id.*

55. *See id.*

virtually unchanged at 25.21 on August 28 (after opening that day at 25.97 and hitting an intra-day high of 26.04).<sup>56</sup> Even significant short sales the day before the announcement were accompanied by a price rise: on August 27, Chiasson sold short 650,000 shares; that day the stock opened at 25.25 and closed at 25.63.

### 3. NVIDIA's First Quarter 2009 Earnings Announcement

Chiasson and Newman also traded on the basis of material non-public information concerning Nvidia's financial results for the first quarter of 2009. The trading was once again significant—Level Global reaped over \$10.1 million in profits and avoided another \$5.4 million in losses—but once again the impact of the trading on the price of the stock is somewhat murky.<sup>57</sup>

According to the SEC's complaint, on April 27, 2009, the defendants received material non-public information that Nvidia's gross profit margin was substantially lower than analysts' then current consensus.<sup>58</sup> Diamondback initiated a short position that day of 375,000 shares.<sup>59</sup> Level Global liquidated a long position it held, selling 2.95 million Nvidia shares worth more than \$32.7 million.<sup>60</sup> On April 27, the market reacted as one might expect with this level of selling: the stock closed down at 11.02, a decline of 26 cents from the opening price of 11.28. While the price moved in the "correct" direction and the downturn was not insignificant (2.3%), the downturn was not overwhelming in light of the size of the trades at issue: the 2.95 million shares that Level Global sold represented almost 15% of the total reported trading volume that day (and about .5% of the total shares outstanding). More important, to whatever extent the market was reacting to the presence of an informed trader, the reaction was of very limited duration; by the next day the stock hit an intraday high of 11.28 (the same price as the open on April 27), although it fell back down to close at 11.05. Two days later, on April 30, the stock hit an intraday high of 11.80 before closing at 11.48 (up 1.7% from the day the insider trading started).

The defendants received further confirmation of worse than expected gross profit margin numbers on May 4. That day Level Global sold short one million Nvidia shares.<sup>61</sup> Contrary to expectations, the price of the stock went *up* that day, opening at 11.87 and hitting an intraday high of 12.39, before closing at 12.30 (an increase of 3.6% from the open).

Level Global continued to build its short position over the next three trading days before the announcement, eventually accumulating a net short position of 3.9 million shares.<sup>62</sup> The price moved down on all three days, but there was an intervening bump that is confounding. On May 5, when Level Global sold short 585,000 shares, the price went

---

56. During the same period, the Dow was up .47%, the S&P 500 was up .19%, Nasdaq was down 1.8%, and the technology sector was down 2%.

57. Adondakis Complaint, *supra* note 46, ¶ 104.

58. *Id.*

59. See Government Exhibit 2501-DB, United States v. Newman, No. 12-CR-00121 (S.D.N.Y. 2015) [hereinafter Government Exhibit 2501-DB] (on file with author). Newman's trading was once again erratic: he began covering his shorts the next day, and eventually closed the short position on May 6, before building it up again to 175,000 shares prior to the announcement.

60. See Government Exhibit 2501-LB, Newman, No. 12-CR-00121 [hereinafter Government Exhibit 2501-LB] (on file with author); Adondakis Complaint, *supra* note 46, ¶ 105.

61. See Government Exhibit 2501-LB, *supra* note 60.

62. See Adondakis Complaint *supra* note 46, ¶¶ 108–09.

from 12.03 to 11.80; on May 6, when Level Global sold short 1,435,000 shares (and Diamondback sold short an additional 125,000 shares), the price went from 11.93 at the open to 11.56 at the close, a two day decline of 3.9%.<sup>63</sup> However, the next morning, May 7, the stock opened at 11.82, meaning that after three full days of short selling by informed traders, during which Level Global sold short close to four million shares,<sup>64</sup> the stock was down a grand total of five cents (.4%) from the opening price on May 4. Moreover, the opening price on May 7 (11.82) was up 4.7% from the opening price on April 27 (11.28), when the informed selling and short selling started.<sup>65</sup>

It was only on May 7, just before the announcement, that the stock moved significantly, going from 11.82 at the open to 10.73 at the close (a decline of 9.2%).<sup>66</sup> Level Global sold short 895,000 shares that day (and Diamondback sold short another 50,000 shares).<sup>67</sup> There was also a spike in volume that day. But aside from the last day, and looking at the trading on the whole, it is hard to say that the market detected the presence of informed traders, or that the information was incorporated into the price of the security.<sup>68</sup>

### *C. Insider Trading at Galleon*

After a widely publicized trial Raj Rajaratnam, the billionaire founder of the Galleon Group, a New York based hedge fund, was convicted on fourteen counts of conspiracy and securities fraud stemming from a wide-ranging insider trading scheme involving numerous stocks and multiple sources of information, including high ranking executives and board members of major corporations. He was sentenced to 11 years in prison and ordered to pay civil and criminal penalties totaling over \$150 million.<sup>69</sup> The total profits and losses avoided from these transactions were over \$72 million.<sup>70</sup>

What happened to the price of the stocks Rajaratnam traded in? On several occasions, the stocks moved in precisely the expected direction—that is, the price rose when Rajaratnam took a long position, and declined when he sold or took a short position. For example, Rajaratnam bought shares of Hilton Hotels Corporation based on non-public information that Hilton was going to be acquired by The Blackstone Group. Rajaratnam bought 500,000 shares on July 3, 2007 (at an average price of 35.12), in advance of the announcement (Rajaratnam also purchased 7,500 shares in the account of a friend). That day, the stock opened at 34.28 and closed at 36.05, up 5.16%. Rajaratnam's purchases were

---

63. See Government Exhibit 2501-LB, *supra* note 60, and Government Exhibit 2501-DB, *supra* note 59.

64. Adondakis Complaint, *supra* note 46 ¶ 108.

65. These gains were in line with the performance of the technology sector during this same period (open on April 27 to open on May 7), which was up 5%. The Dow was up 5.4%, the S&P 500 was up 6.57% and Nasdaq was up 5.9% during the same period.

66. By contrast, Nasdaq was down 3.1% that day and the technology sector was down 4%, while the Dow was down 1.2% and the S&P 500 was down 1.3%.

67. See Government Exhibit 2501-LB, *supra* note 60, and Government Exhibit 2501-DB, *supra* note 59.

68. To be clear: from the first day of trading through the end of the trading period the price declined (as would be expected) and the decline was significant (4.87%). But this was all due to the decline on the last day, because as of the opening that day the price was up 4.7% from the start of trading, a period during which the defendants made very extensive sales and short sales.

69. David S. Hilzenrath, *Raj Rajaratnam, Hedge Fund Billionaire, gets 11-Year Sentence for Insider Trading*, WASH. POST (Oct. 13, 2011), [https://www.washingtonpost.com/business/economy/hedge-fund-billionaire-gets-11-year-sentence-in-fraud-case/2011/10/13/gIQAa0PZhL\\_story.html?noredirect=on&utm\\_term=.63ed55a1950b](https://www.washingtonpost.com/business/economy/hedge-fund-billionaire-gets-11-year-sentence-in-fraud-case/2011/10/13/gIQAa0PZhL_story.html?noredirect=on&utm_term=.63ed55a1950b).

70. *Id.*

a significant portion (6.79%) of the total reported volume that day (7.471 million); and the total volume was almost twice the volume on the previous trading day (and more than twice the average volume each day of the preceding week). After the announcement, the stock opened at 45.63 on July 5 (the next trading day) and closed at 45.39, an increase of 25.9% from the close on the insider trading day (July 3). Rajaratnam netted over \$5.2 million in profits.<sup>71</sup>

But in several other instances of unlawful trading, the stock price moved in the opposite direction, or the trading had little or no discernable effect on the stock's price. Rajaratnam's trading is particularly fertile ground for analysis, because the sentencing report submitted by the government includes unusually detailed information concerning the trades at issue.

### 1. Trading in the Securities of Akamai

Rajaratnam's trading in Akamai stock occurred on three days and preceded a negative earnings announcement that the company issued on July 30, 2008. Rajaratnam was tipped to the negative earnings announcement by a hedge fund analyst, who in turn obtained the information from a senior marketing director at Akamai. The following is a chronology of the trading and market movement:<sup>72</sup>

- On July 25, 2008, Rajaratnam sold short 200,000 shares at an average price of 31.6933. That day Akamai opened at 32, hit an intraday high of 32.26, an intraday low of 31.26, and closed at 32.08. The closing price, in other words, was slightly *higher* than the opening, and *higher* than the average price of Rajaratnam's short sales.<sup>73</sup>
- On Monday July 28, the next trading day, and a day on which Rajaratnam did not trade, Akamai opened at 32.02, and closed down at 31.20.
- On July 29, Rajaratnam sold short 300,000 shares at an average price of 31.6994, in two transactions (250,000 and 50,000 shares respectively), that appear to bear time stamps just after the close (4:01 p.m. and 4:02 p.m.). That day Akamai opened at 31.54 (slightly up from the previous day's close), hit an intraday high of 32.15, an intraday low of 31.01 and closed at 31.54. The closing price was *unchanged* from the opening, although slightly lower than the average price of Rajaratnam's short sales.<sup>74</sup> Because the time stamps reflect times after the close, the opening price the next day (July 30) may also be relevant, but that day the stock opened *up* at 31.61.
- On July 30, Rajaratnam sold short 125,000 shares in two transactions (75,000 at an

---

71. Details of the trading are in the Government's Reply Sentencing Memorandum Regarding Calculating Raj Rajaratnam's Gain, Exhibit A at 18, *United States v. Rajaratnam*, S2 09 Cr. 1184 (RJH) (S.D.N.Y. 2011) [hereinafter Reply Sentencing Memo, Ex. A]. Other examples where the market moved in the expected direction include Rajaratnam's trades in Clearwire, eBay, Goldman Sachs, Intel, and Polycom. *See id.* at 9, 11, 13, 23, & 26.

72. *See id.* at 3.

73. The Akamai increase (.25%) was in line with the Dow (up .2%) and the S&P 500 (up .33%), and just a bit lower than the gains on Nasdaq (up .6%), but oddly Akamai outperformed the technology sector which was down .76% that day.

74. Broader market indices, however, were higher that day (Dow was up 2.3%; S&P 500 was up 2.19%; Nasdaq was up 1.9%; and the technology sector was up 7.3%), so Akamai underperformed even while the price remained unchanged.



average price of 31.0768 and 50,000 shares at an average price of 31.1183). The second of these transactions bears a time stamp just after the close (4:16 p.m.). Rajaratnam also bought 2000 August \$25 put options. That day, Akamai opened at 31.61, hit an intraday high of 31.89, an intraday low of 30.56, and closed at 31.25. In this case the stock did close slightly *lower* (down by about 1.14%), although the close was still *higher* than the average price of Rajaratnam's short sales. The second of Rajaratnam's sales that day appears to have occurred after the close, but the announcement came shortly after that, so the next morning's opening price would have been impacted by the announcement rather than by any trading.

- On July 31, following the negative earnings announcement, Akamai opened at 25.06, hit an intraday high of 25.50, an intraday low of 22.69, and closed at 23.34.

In sum, on the three days on which Rajaratnam sold short, and which should theoretically correlate to lower closes, the stock actually closed higher one day, unchanged the second, and was only down on the third day. Moreover, on two of the three days, including the day when the price declined, the close was *higher* than the average price of Rajaratnam's sales. Overall, during the period of Rajaratnam's short sales, Akamai's price did decline, as would be expected, going from 32 at the open on July 25 to 31.25 at the close on July 30; but the entirety of that decline can be traced to one day (July 28), when the stock opened at 32.02 and closed at 31.20. That was the only day during that period on which Rajaratnam *did not* trade. Moreover, while the decline during that period is not insignificant (about 2.35%),<sup>75</sup> it pales in comparison to the decline from the close on July 30 (31.25) to the close on July 31 (23.34), the day after the information was made public, a decline of about 25.31%. To whatever extent the market picked up the presence of an informed trader, it impounded only a small fraction of the value of the information into the price of the security.

It should also be noted that Rajaratnam's trading in Akamai was significant. The short position he built in advance of the announcement totaled 625,000 shares, and the transactions netted over \$5.1 million in illegal profits (Rajaratnam made an additional \$370,000 on the put options).<sup>76</sup> The 200,000 shares Rajaratnam sold short on July 25 (when the price actually rose) represented about 4.475% of the total reported volume that day (4,470,692 shares); the 300,000 shares he sold short on July 29 (when the price was unchanged) represented about 6% of the total reported volume that day (4,998,370 shares). Ironically, the one trading day that the price of the stock declined, July 30, Rajaratnam's short sales of 125,000 shares accounted for only .9% of the total reported volume that day (12,653,643 shares).

## 2. Trading in the Securities of ATI Technologies

Rajaratnam's trading in the stock of ATI Technologies was based on information concerning a takeover of ATI by AMD. The takeover was announced before the opening of the market on July 24, 2006. Rajaratnam built a long position of approximately 6 million shares, in advance of the takeover announcement, and reaped unlawful gains exceeding

---

75. Broader market indices were also higher during the three-day period (Dow was up 2.1%, Nasdaq was up 1.5%, and the technology sector was up 3.8%), making the decline more significant.

76. See Reply Sentencing Memo, Ex. A, *supra* note 71, at 3.

\$24 million.<sup>77</sup> The trading in this case, however, poses a number of analytic challenges: the trading occurred on numerous days over several months and there were intervening events, including two quarterly earnings announcements, which likely affected the stock's price. In addition, there were episodes of selling interspersed with the buying. Nonetheless, a close look at the trading and its possible effects on the market can be revealing.

To build the position Rajaratnam entered into 112 transactions through three accounts on 54 different trading days.<sup>78</sup> Seventy-nine of these transactions were buys totaling 9,600,350 shares; 33 of these transactions were sales totaling 3,550,350 shares, for a total net long position prior to the acquisition announcement of 6,050,000 shares. Of the 53 trading days, 35 had buys only; 16 had sales only; two had both buys and sells. On one of the days when there were both buys and sales (May 23, 2006), the buy transaction appears to have occurred after the market closed, so that day will be treated as a sell only day, while the buy transaction will be analyzed in relation to how the market did the following day. With respect to the other buy/sell day (July 21, 2006), the sales clearly occurred after the market closed so that day will be treated as a buy only day; because the takeover announcement occurred before the next trading day, the sales will be discounted entirely.

The normal expectation would be that on buy days the price of the stock would go up; but in fact, on 24 of the 36 buy only days, the stock closed *down* from the open; the stock closed unchanged on two other buy only days; and the stock closed up on only 10 of the buy only days. Looking at whether the stock closed up or down from the average purchase price of Rajaratnam's shares reveals a less dramatic but still significant outcome: the stock closed lower than the average purchase price on 14 of the 36 buy only days (38.8%); it closed higher than the average purchase price on 14 of the 36 buy only days; and on eight of the trading days the average purchase price on some transactions was higher than the closing price and the average purchase price on some transactions was lower than the closing price (there were often multiple trades on the same day).

Because some of the trading occurred near the close and some may have occurred after the close, and because it could be argued that the market may need a little time to respond to any signal, it's worth looking to see whether the stock closed higher or lower than the average purchase price on the next trading day *after* the buys were executed (of course, on several occasions there was also additional buying on that day). But here too the results are confounding: on 17 of the 36 next trading days (47.2%), the stock closed down from the average purchase price; on 15 of the 36 next trading days, the stock closed up; and on 4 days the results were mixed.

Ironically, on the sell only days the pattern was largely reversed. On 10 of the 17 sell only days, the stock closed higher than the open; it closed down from the open on five of the 17 days; and it closed unchanged on the other two. In addition, the stock closed up from the average sale price of Rajaratnam's trades on eight of the 17 days, down from the average sale price on five of the 17 days; and mixed on four days. Finally, looking at the close on the next trading day, the stock closed higher than the average sale price on seven of the 17 days; the stock closed lower than the average sale price on six of the 17 days; and was mixed on four days.

The actual impact on the market (or lack thereof) comes through even more clearly when the trading, which tended to occur in one direction in any given time period (many

---

77. See Reply Sentencing Memo, Ex. A, *supra* note 71, at 5-7.

78. See *id.*

buys or many sells over several days), is looked at in blocks. In most instances, the trading had no discernible effect on the price of the stock, which showed minimal movement or moved in the opposite than expected direction, even though the trading was significant in size, as described below:<sup>79</sup>

- Rajaratnam initially accumulated a net long position of 2.75 million shares over a span of ten trading days from March 7 through March 23, 2006. Conventional wisdom would say that accumulating a position this size would push the price up. But the opening price on March 7 was 15.16, the closing price on March 23 was 14.92, a decline of 24 cents (1.58%); this even though the 2,750,000 shares amounted to just under 5% of the total reported volume on those ten trading days (55,629,000 shares), and on a few days the purchases represented an even more significant percentage of the reported volume: on March 13 Rajaratnam bought 600,000 shares out of a total reported volume of 5.744 million (10.4%); that day the price declined from 14.57 to 14.33. On March 16 Rajaratnam bought 375,000 shares out of a total reported volume of 6.343 million (5.9%); that day the price declined from 14.29 to 14. On March 17, Rajaratnam purchased 250,000 shares out of a total reported volume of 2.796 million (8.9%); that day the price declined from 14.45 to 14.40. The price decline between March 7 and March 23 is even more surprising given that broader market indices were up during the same time period (the Dow was up 2.85%, the S&P 500 was up 1.8%, Nasdaq was up .8%, and the technology sector was up 1.1%), meaning that the stock was generating negative abnormal returns.<sup>80</sup>
- After selling 800,000 shares, Rajaratnam restored the position by purchasing 850,000 shares over six trading days between April 5 and April 27. During that time the price declined from 17.24 at the open on April 5 to 15.74 at the close on April 27. On one trading day (April 5), Rajaratnam purchased 475,000 shares out of a total reported volume of 8.614 million (5.5%); that day the price declined from 17.24 at the open to 16.94 at the close.
- After selling 500,000 shares, Rajaratnam purchased an additional 2,125,000 shares between May 5 and May 24 (while also selling 100,000 shares), bringing his net long position to 4.325 million shares. During that time the price of the stock went from 17.68 at the open on May 5 to 15.3 at the close on May 24, a decline of 2.38 (13.46%).<sup>81</sup> On several of those trading days, Rajaratnam's purchases were a significant percentage of the reported trading volume (e.g. May 10: 275,000 shares out of a total reported volume of 3.327 million (8.2%); May 18: 225,000 shares out of a total reported volume of 3.548 million (6.3%); May 24: 625,000 shares out of a total reported volume of 14.704 million (4.25%)).

---

79. *See id.*

80. "Abnormal returns" are generally defined as the difference between the actual returns for a security and the expected returns based on normal market movements, typically measured by reference to broader market indices. *Abnormal Returns*, NASDAQ, <https://www.nasdaq.com/investing/glossary/a/abnormal-return> (last visited Aug. 30, 2018). Scholars who have studied the effect of insider trading on market prices have found that insider trading generates abnormal returns. Meulbroek, *supra* note 7, at 1670. "Negative abnormal returns" refers to situations where the market outperforms the security in question.

81. *See Reply Sentencing Memo, Ex. A, supra* note 71, at 5–7. The decline was also considerably larger than declines in the broader market indices (the Dow was down 2.8%, the S&P 500 was down 4%, Nasdaq was down 7.1%, and the technology sector was down 6.4%).

- After selling 250,000 shares, Rajaratnam purchased 900,000 shares over two consecutive trading days, June 7 and June 8. The price declined from 15.88 at the open on June 7 to 15.38 at the close on June 8; the 900,000 shares represented 3.7% of the total reported volume on those two days (23,716,000).
- Rajaratnam then engaged in a few smaller transactions before selling off a million shares over seven trading days between June 15 and June 28. Here again, the market reacted opposite to what one might expect: the price *rose*, going from 14.82 at the open on June 15 to 15.5 at the close on June 28, a gain of 4.5%. Over the next two days Rajaratnam bought back 850,000 shares: this time the price did move in the expected direction rising from 14.43 at the open on June 29 to 14.60 at the close on June 30, a gain of 1.17%.<sup>82</sup> But that instance was an exception: even the final purchases, which occurred closer in time to the announcement, had opposite the expected effect on the market. Rajaratnam purchased 1,825,350 shares over four trading days between July 10 and July 14. During that time the price dropped, going from 15.35 at the open on July 10 to 15.19 at the close on July 14, a decline of 1%.<sup>83</sup> Rajaratnam's purchases constituted 4.6% of the total reported volume over those four days (39,505,000 shares).

Overall, the price did rise from the time of Rajaratnam's first transaction (15.16 at the open on March 7) until the last trading day before the announcement (16.56 at the close on July 21). But the stock went up and down during this period, and the rises occurred at times when Rajaratnam was not trading, or worse was selling (*e.g.* April 28 (open at 15.64) through May 4 (close at 17.56)). In fact, on July 17, a week before the announcement, the stock opened at 15.19, just three cents (about .2%) above where it opened on March 7 (the day Rajaratnam started to trade). At the end of that week, during which Rajaratnam's only trades were offsetting (a sale of 200,350 on July 20 and a purchase of 200,000 on July 21),<sup>84</sup> the stock closed at 16.56, accounting, in effect, for the entire pre-announcement run-up. The market, in other words, does not appear to have ever detected the presence of an informed trader, even one who was building a very extensive position in the stock.

### 3. Trading in the Securities of Google

Rajaratnam sold Google shares he previously owned, sold short Google shares, and bought put options in advance of a negative earnings announcement on July 19, 2007, netting total gains of over \$17 million plus an additional \$6.5 million in losses avoided.<sup>85</sup> Specifically:

- On July 13 Rajaratnam sold 210,000 shares (at an average price of 551.2501) and sold short an additional 48,170 shares (at an average price of 549.7553). That day the stock opened at 547.91, hit an intraday high of 552.67, and closed *up*

---

82. *Id.* Even though the price went up, the stock still underperformed the broader market indices (the Dow was up 1.6%, the S&P 500 was up 1.94%, Nasdaq was up 2.38%, and the technology sector was up 1.69%).

83. *Id.* The broader market indices, however, were down further (the Dow was down 3.1%; the S&P 500 was down 2.3%; Nasdaq was down 4.6%; and the technology sector was down 4.7%), so while AT1 was down it still outperformed the market.

84. *Id.* Rajaratnam also sold 150,000 shares after the market closed on July 21.

85. See Reply Sentencing Memo, Ex. A, *supra* note 71, at 16.

(slightly)<sup>86</sup> at 552.16<sup>87</sup> (which is also *above* the average price of Rajaratnam's sales and short sales). Rajaratnam also purchased 1,200 put options with a strike price of \$530 on July 13.<sup>88</sup>

- On July 16, the next trading day, Rajaratnam did not do any Google stock trades, but did purchase an additional 1,200 Google put options with a strike price of \$530 and 1000 put options with a strike price of \$540. On July 16, Google stock opened at 550.3, hit an intraday high of 558.58, and closed up at 552.99.
- On July 17, Rajaratnam sold short 50,000 shares (at average prices ranging from 554.8748 to 555.8386). Rajaratnam also purchased 700 \$540 put options and 1000 \$550 put options. That day the stock opened at 555.04, hit an intraday low of 552.38 and an intraday high of 557.73, before closing virtually unchanged at 555.
- On July 18, Rajaratnam did not trade Google stock, but he did purchase 1400 \$540 put options and a net of 1600 \$550 put options. That day the stock price did trend down, opening at 553.89, hitting an intraday low of 543.81, and closing at 549.50. However, the stock rebounded and opened the following morning at 553.46. That day, July 19, Rajaratnam sold short 125,000 shares (at average prices ranging from 549.2247 to 549.4376). He also purchased 667 \$540 put options. That day the stock closed down at 548.59, below Rajaratnam's average sale prices, but well above the intraday low of 542.24.

In sum, the stock closed higher on one of the three stock trading days, unchanged on another, and down on the third. Overall, the price *rose* (albeit very slightly) from 547.91 at the open on the first day of Rajaratnam's selling to 548.59 at the close before the announcement (up .1%).<sup>89</sup> Moreover, the day the stock closed higher (July 13), Rajaratnam's sales and short sales, which totaled 258,170 shares, represented 4.92% of the total reported volume (5,238,051). After the earnings announcement on July 20, the stock opened at 511.90, hit an intraday low of 509.90, and an intraday high of 523.18, before closing at 520.12, a decline of 5.18% from the pre-announcement close.

---

86. The gain was .77%, which is not statistically significant. The broader indices were also up very slightly, although less (again by very small and insignificant margins) than Google (the Dow was up .34%, the S&P 500 was up .31%, Nasdaq was up .37%, and the technology sector was up .07%).

87. The numbers used herein are for the stock ticker GOOG as reflected on Bloomberg in 2011 (screen shot on file with the author). In 2014, Google did a stock split creating two classes of stock, one with the stock ticker GOOG, the other with the stock ticker GOOGL (the next year they converted this stock to Alphabet stock, but it still trades under those symbols). When the original split in two occurred, the price was simply halved; unfortunately, at least on Bloomberg, this split is now reflected in historical prices as well, so that a present-day look-up of the stock ticker GOOG for the relevant dates will yield a price that is approximately half that used herein. More unfortunately, there must have been some adjustment because simply doubling the currently available historical prices yields a number that is just *slightly* different from the numbers used herein. So, for example, a current look-up for GOOG for July 13, 2007, when doubled, yields an opening price of 548.44, an intraday high of 553.206, and a closing price of 552.696. However, using the currently available historical prices does not alter the analysis or conclusions herein in any way.

88. The relation between option purchases and the price of the underlying security is obviously murkier, but because large option purchases might send signals that might be picked up at least by market professionals, I am noting the trades here.

89. The broader indices, however, were up more, although the gains were not significant (the Dow was up 1%; the S&P 500 was up .34%; Nasdaq was up .8%; and the technology sector was up 1%).

#### D. The Octopussy

In November 2009, the SEC and federal criminal authorities brought charges in a wide-ranging insider trading scheme involving several traders and hedge fund managers who made illicit profits exceeding \$20 million by trading ahead of corporate takeover announcements. The source of the information was Arthur Cutillo, who at the time was a lawyer at Ropes & Gray, a prominent law firm that was working on the transactions in question. The information was relayed to Zvi Goffer, a trader who worked at Schottenfeld Group, who traded on the information and passed it on to others. Goffer, who was nicknamed “the Octopussy” because he had “arms in so many sources of information,”<sup>90</sup> was eventually convicted after trial for his role in this scheme and for some other insider trading and was sentenced to 10 years in prison and ordered to pay criminal forfeiture of more than \$10 million. Goffer was also sanctioned in two SEC actions and was ordered to pay additional disgorgement and interest totaling over \$1.5 million.<sup>91</sup>

As detailed in the SEC’s complaint and in the criminal case, the information that the group traded on concerned announcements of proposed acquisitions of three companies: Avaya, 3Com, and Axcan. The trading in Avaya was relatively modest, consisting of some 155,000 shares and some call options, yielding illicit profits of about \$170,000.<sup>92</sup> The 3Com and Axcan trades were fairly significant and will be discussed below.

##### 1. Trading in the Securities of 3Com

According to the SEC’s complaint, Bain Capital, which was represented by Ropes & Gray, expressed an interest in acquiring 3Com in late July 2007 and began negotiating an agreement during the first week in August.<sup>93</sup> On August 6, Cutillo passed on this information to one of the group, who in turn passed it on to others. Based on this information, several members of the group purchased 3Com stock on August 7 and continued to purchase 3Com stock through September 28, 2007, when the acquisition was publicly announced.<sup>94</sup>

As detailed in the SEC’s complaint, the purchases by the defendants and their tippees were significant: in the aggregate they bought 8,828,171 shares of 3Com stock, which they sold after the announcement, netting over \$11 million in illicit profits.<sup>95</sup> What happened to the stock price during that time?

- On August 7, the first day of trading, the stock actually went *down*: it opened at 3.59 and closed at 3.45, a decline of 3.8%.<sup>96</sup> We also know that there was significant trading on that day: according to the criminal complaint, five members of the group purchased a total of 710,000 shares that day,<sup>97</sup> which represented

---

90. Complaint at 2, SEC v. Cutillo, No. 09-CV-9208 (S.D.N.Y. Nov. 5, 2009) [hereinafter Cutillo Complaint].

91. See SEC v. Galleon Mgmt, Release No. 22185, 2011 WL 10915511 (Dec. 9, 2011); SEC v. Cutillo, Release No. 22 186, 2011 WL 10915512 (Dec. 9, 2011).

92. Cutillo Complaint, *supra* note 90, ¶ 28.

93. See *id.* ¶ 29.

94. See *id.* ¶¶ 32–39.

95. See *id.* ¶ 39.

96. In addition, broader market indices were up that day, albeit marginally (Dow up .27%, S&P 500 up .61%, Nasdaq up 1.1%, technology sector up .4%).

97. See Sealed Complaint at 3, United States v. Goffer, No. 09-MJ-02438 (S.D.N.Y. Nov. 4, 2009) (on file with author).

8.6% of the total reported volume that day.

- On August 8, the stock climbed back a bit at first, opening at 3.6 and hitting an intraday high of 3.7, but it closed *down* at 3.55. The following day the stock slid further, closing at 3.41.<sup>98</sup>

Over the next six weeks, during which the traders continued to accumulate a large long position, the stock fluctuated: it closed at a high of 4.08 on September 6, an increase of 13.6% from the price at the open on the first day of trading, which could be an indication that the market was perceiving the presence of informed traders; but it fell back down to a low of 3.34 at the close on September 24 (a decline of 6.9% from the open on the first day of insider trading), which shows that to whatever extent the market detected informed trading, it did not truly incorporate that information into the price.

On September 26, just two days before the announcement, the stock even hit an intraday low of 3.33 before closing at 3.50, *still down* 2.57% from the open on the first day of insider trading.<sup>99</sup>

On September 27, the last trading day before the announcement, the stock closed at 3.68, up 5.4% from the previous day (perhaps as a result of unrelated insider trading),<sup>100</sup> and up 2.5% from the open on the first day of insider trading.

Overall, the stock price did go up at the end, and it was up at various intermediate points, but it was also down at various times, including on the one day that we know significant trading took place, and it was down even two days before the announcement. It is difficult to say under those circumstances that the market was reacting to the presence of informed traders or incorporating the information into the market price of the security. Moreover, after the announcement, the stock opened at 5.10 and closed at 4.94, an increase of more than 34% from the previous day's close of 3.68, showing that to whatever extent the insider trading was imparting information to the market, the market only impounded a small fraction of the information's value into the price of the security.

## *2. Trading in the Securities of Axcan*

The defendants and their tippees also traded in advance of an announcement that Axcan would be acquired. In early August 2007, Axcan's board hired a financial adviser to solicit potential purchasers, who were asked to put in bids by October 26.<sup>101</sup> Ropes & Gray represented one of the potential bidders. On October 25, 2007, Cutillo passed on information about the acquisition to a member of the group, who passed it on to others.<sup>102</sup> Four members of the group traded on the basis of the information, acquiring a total of 1,743,023 shares of Axcan prior to the announcement on November 29, 2007, realizing

---

98. Once again, broader market indices were up that day (Dow up 1.1%, S&P 500 up 1.44%, Nasdaq up 1.17%, technology sector up .8%).

99. Obviously, there are too many intervening events to make this comparison really meaningful, but for what it's worth, over that same time period (open on August 7 to the close on September 26) broader market indices were up by a fair amount (Dow up 3%, S&P 500 up 3.9%, Nasdaq up 6.5%, technology sector up 5.4%).

100. We know from an unrelated case that there was extensive insider trading in 3Com stock on the two days preceding the announcement, when the stock went from 3.38 at the open on the 26 to 3.68 at the close on the 27th (an increase of 8.8%). See Complaint at ¶ 38, SEC v. Kluger, No. 11-CV-01936 (D.N.J. Apr. 6, 2011) (Bauer purchased 1,646,113 shares of 3Com on those two days).

101. See Cutillo Complaint, *supra* note 90, ¶ 40.

102. See *id.* ¶¶ 41–45.

more than \$7 million in illicit profits.<sup>103</sup>

In this case the market reacted diametrically *opposite* to what might be expected. On October 26, the first day any trading took place, the stock went up, opening at 20 and closing at 20.90, an increase of 4.5%. But after that, the price dropped, and dropped dramatically: by the end of the following week, it closed at 18.85, a drop of 9.8% from the close on October 26. By November 20 the stock rebounded a bit from that low, but on November 27, two days before the announcement, the stock closed at 17.37, a decline of 16.88% from the close on October 26 (and a decline of 13.15% from the open on November 26).

The stock did rise on the day before the announcement, but it still closed at 18.2. Overall, during a period in which informed traders bought more than 1.7 million shares of Axcan, the price *declined* by 9% (from 20 at the open on October 26).<sup>104</sup> It is also noteworthy that Axcan was a more thinly traded stock than many of the others discussed herein: the trading volume was over one million shares on only 3 of the trading days during this period and was frequently under half a million shares a day, so the 1.7 million shares that the informed traders acquired should have stood out even more. After the announcement, the stock opened at 22.75 and closed at 22.70, an increase of 24.72% over the previous days' close, which reflects the considerable value of the information that was being traded on.

#### E. The Expert Network Case

In February 2011, the SEC and the U.S. Attorney's Office filed charges in a case involving information obtained by various hedge fund professionals from certain company insiders through the intermediary of a so-called "expert network" firm, Primary Global Research.<sup>105</sup> The defendants in the criminal actions were convicted or pled guilty to charges of unlawful insider trading, and the defendants in the SEC action have all been held liable. Once again, the case provides some confounding examples of the impact of insider trading on the market price of securities.

##### 1. Trading in the Shares of Omnivision

For example, as detailed in the SEC's complaint, a hedge fund analyst obtained material nonpublic information from an insider at a technology company concerning Apple's plans to increase iPhone handset production and how that would impact another company, Omnivision, which was an Apple supplier. According to the complaint, between November 24, 2009, and December 16, 2009, the analyst caused his hedge fund to purchase 512,000 shares of Omnivision.<sup>106</sup> As noted in the complaint, during the period in which the hedge fund was accumulating this long position, Omnivision's "share price *declined* from a closing price of \$13.10 per share on November 24 to a closing price of \$12.60 per

---

103. See *id.* ¶ 48.

104. Broader market indices were also down during this period (October 26 to November 28), but the declines were smaller than Axcan's (Dow was down 2.82%; S&P 500 was down 3.1%). Nasdaq was down 5.1%, but the health care sector was actually up 4.14% during this period.

105. Amended Complaint, SEC v. Longoria, No. 11-CV-00753 (S.D.N.Y. Feb. 8, 2011) [hereinafter Longoria Complaint].

106. See *id.* ¶ 78.



share on December 16, 2009.”<sup>107</sup> About a week later, when rumors began to circulate about the increase in demand for iPhone parts, Omnivision’s share price jumped to 14.22.<sup>108</sup>

## 2. Trading in the Shares of Marvell

In another example, a so-called “expert” who had contacts at Marvell Technology Group, provided non-public information to hedge fund professionals concerning Marvell’s better than expected first quarter 2008 results, which Marvell announced after the close on May 29, 2008. As detailed in the SEC’s complaint, two hedge funds traded on this information between May 23 and May 29, 2008: Barai Capital closed out a 25,000 short position and established a 300,000 share long position, while another hedge fund, later identified as a SAC Capital affiliate, purchased almost 800,000 shares.<sup>109</sup> Yet overall during this time period, the price of Marvell stock *declined*, going from 14.20 at the open on May 23 to 14.08 at the close on May 29.<sup>110</sup> After the earnings announcement, the stock jumped significantly higher, opening at 16.95 and closing at 17.36.

There were some small intermediate upswings during this period, and these may correlate with some of the trading. For example, on May 23, the first day of any insider trading, the stock opened at 14.20 and closed up at 14.44. In addition, the SAC Capital affiliate purchased \$5.6 million worth of Marvell stock on May 28 at an average price of 14.08 per share.<sup>111</sup> That day the stock opened at 14.25 and closed at 14.34, indicating that the stock had declined from the open and rebounded to close up, perhaps as a result of the buying at issue. The following day, the fund purchased an additional \$5.6 million worth of Marvell stock at an average price of 14.06 per share.<sup>112</sup> That day the stock opened at 14.35 and closed *down* at 14.08, a decline of 1.8%, even though there was a big spike in the reported volume that day (almost two and a half times the previous day’s volume). Because the shares were purchased at an average price below the close, it is possible that some of the buying may have caused a slight uptick. Nonetheless, the fact remains that the stock closed down for the day, and overall the price *declined* during a period in which these two funds accumulated a long position of about 1.1 million shares, which yielded illicit profits totaling about \$3.4 million.<sup>113</sup> Donald Longueuil, the trader at the SAC Capital affiliate, pled guilty to criminal insider trading charges and was sentenced to 30 months in prison for his role in the scheme.<sup>114</sup>

### III. OTHER RECENT EXAMPLES OF UNLAWFUL INSIDER TRADING

The examples described in Part II above dealt largely with trading by hedge funds and

---

107. *Id.* ¶ 79 (emphasis added).

108. *Id.* ¶ 80.

109. *Id.* ¶¶ 103, 107.

110. The decline is obviously very small and statistically insignificant (.84%). But it is noteworthy that over the same time period (May 23 through May 29), some broader indices were up marginally (Dow up .2%; S&P 500 up .4%) and Nasdaq was up 2.2%, while the technology sector was up 2.4%.

111. Longoria Complaint, *supra* note 105, ¶ 107.

112. *Id.*

113. *Id.* ¶¶ 105, 108.

114. See Walter Pavlo, *Donald Longueuil, Inside Trader Sentenced to Prison*, FORBES (Jul. 29, 2011 8:18 PM), <https://www.forbes.com/sites/walterpavlo/2011/07/29/donald-longueuil-inside-trader-sentenced-to-prison/#76fbefe641f5>.

other market professionals. In this Part, I look at some other recent examples of illegal insider trading involving a variety of different situations, including some cases where the insider trading was much smaller and more opportunistic than the repeated and high-volume insider trading that was at issue in the hedge fund cases.

#### A. Trading in the Shares of Informatica

In March 2014, the SEC filed an action against Ching Hwa Chen who traded based on nonpublic information that Informatica would miss its quarterly earnings target for the first time in 31 consecutive quarters.<sup>115</sup> According to the complaint, Chen obtained the information when he overheard his wife, who was Informatica's senior tax director, discussing the financial results on a series of phone calls.<sup>116</sup> Shortly after hearing the news, Chen sold short Informatica shares, sold call options, and bought put options in four brokerage accounts he controlled.<sup>117</sup> Informatica issued a press release after the close of the market on July 5, 2012, announcing that it would not meet its targets. The next day, the stock price dropped, opening at 29.7187 and closing at 31.39, down more than 27% from the previous day's close of 43.47. The SEC's complaint does not specify the size of the transactions Chen entered into or how they were divided between shorts and options, but the overall position was fairly small: Chen realized about \$138,000 in illicit profits,<sup>118</sup> which based on the size of the decline after the announcement and the range of purchase prices, puts the amount at the equivalent of around 10 to 13 thousand shares.

According to the complaint, Chen entered into the transactions on July 2 and 3.<sup>119</sup> On both days the price went *up*: the stock opened at 41.81 and closed at 41.90 on July 2, and opened at 42.12 and closed at 43.01 on July 3. Indeed, the price also rose on July 5 (the next trading day), opening at 42.61 and closing at 43.37. Overall, from the time Chen entered into his bearish positions until the announcement the stock went *up* 1.56 (about 3.73%),<sup>120</sup> before dropping more than 27% after the announcement.

#### B. Trading in the Shares of Acme Packet

In another case involving a husband trading based on information obtained from his wife, the SEC charged Tyrone Hawk with trading on nonpublic information that Oracle, where Hawk's wife was employed, was going to acquire Acme Packet.<sup>121</sup> After overhearing his wife discuss the acquisition in telephone conversations, Hawk purchased a total of 28,000 shares of Acme Packet between January 17 and February 1, 2013.<sup>122</sup> The complaint does not specify the exact dates on which the trading took place, except that Hawk purchased 6,000 shares on January 17, and another 6,000 shares over the course of

---

115. See Complaint at ¶ 13, SEC v. Chen, No.5:14-CV-1467 (N.D. Cal. Mar. 31, 2014).

116. See *id.* ¶ 14.

117. See *id.* ¶ 17.

118. See *id.* ¶ 20.

119. See *id.* ¶ 17.

120. The trades in Informatica were so small that I suspect even the most ardent proponents of the theory that insider trading *always* moves the price in the correct direction would demur on this one. Nonetheless, it's worth pointing out that not only did the price move up, the gains outpaced broader market indices during this time frame: from the open on July 2 to the close on July 5, the Dow was up .13%, the S&P 500 was up .38%, Nasdaq was up 1.2% and the technology sector was up 1%.

121. Complaint at ¶¶ 10–11, SEC v. Hawk, No. 14-CV-001466 (N.D. Cal. Mar. 31, 2014).

122. *Id.* ¶ 12.

the “next few days,” and another 16,000 shares thereafter.<sup>123</sup>

Contrary to expectations, overall during this period the price of Acme Packet stock *declined*, albeit slightly, from 24 at the open on January 17 to 23.93 at the close on February 1. On January 17, when there was known trading, the stock also declined, going from 24 to 23.68. Over the next two weeks the stock fluctuated, but it closed at 23.93 on February 1 (*down* from when the insider trading started). After the takeover announcement, the stock opened on February 4 at 29.36 and closed at 29.59, an increase of more than 23% from the previous day’s close. Hawk made over \$151,000 in illicit profits from his trades.<sup>124</sup>

### *C. Trading in the Shares of Nexen*

In July and August 2012, the SEC filed actions against Well Advantage Limited and three at the time unknown traders to freeze assets that were the proceeds of some highly suspicious trading in Nexen securities in advance of an announcement on July 23, 2012, that CNOOC Ltd. was going to acquire Nexen.<sup>125</sup> All told the defendants generated profits of over \$13 million.<sup>126</sup> Well Advantage later settled the case, agreeing to the entry of an anti-fraud injunction and paying over \$7.1 million in disgorgement and another \$7.1 million as a penalty.<sup>127</sup> The unknown traders were subsequently identified and also settled with the SEC.<sup>128</sup>

The impact of the trading on the price of the security is again a bit of a puzzle. In some instances, the market reacted as would be expected. For example, according to the SEC complaint, one of the defendants traded between July 12 and July 20 (the last trading day before the announcement), but the precise dates are not disclosed. This trader bought 597,990 shares for approximately \$10 million.<sup>129</sup> During that period the price moved up, as would be expected, going from 16.09 at the open on July 12 to 17.06 at the close on July 20 (an increase of 6%), although the stock did dip on the first day of trading, going from 16.09 to 15.89. Two other traders traded on specifically identified days. One trader purchased 78,220 shares for approximately \$1.31 million on July 17, and another trader, purchased 250,000 shares for approximately \$4.2 million on July 17 and July 18.<sup>130</sup> On July 17 the stock again went up, opening at 16.78 and closing at 16.93. On July 18, the stock also went up, opening at 16.93 and closing at 17.27.

However, in the final instance, the market reacted contrary to expectations. Another trader, Well Advantage, purchased 831,033 shares on July 19 for approximately \$14.3 million.<sup>131</sup> Yet, that day the stock went *down* opening at 17.57 and closing at 17.28 (down 1.6%).<sup>132</sup> The volume that day (6.547 million) was significantly higher than on previous

123. *Id.*

124. *Id.* ¶ 1.

125. First Amended Complaint ¶ 2, SEC v. Well Advantage Ltd., No. 12-CV-05786 (S.D.N.Y. Aug. 3, 2012) [hereinafter Well Advantage First Amended Complaint].

126. *Id.* ¶ 18.

127. Press Release, SEC, Hong Kong Firm to Pay \$14 Million to Settle Insider Trading Charges (Oct. 18, 2012), <https://www.sec.gov/news/press-release/2012-2012-212htm>.

128. Press Release, SEC, Foreign Traders Agree to Pay \$3.3 Million to Settle Charges in Nexen Insider Trading Case (Mar. 29, 2013), <https://www.sec.gov/news/press-release/2013-2013-50htm>.

129. See Well Advantage First Amended Complaint, *supra* note 125, ¶ 18.

130. *Id.* ¶¶ 22, 26.

131. *Id.* ¶ 15.

132. By contrast, broader market indices were up that day, albeit marginally (Dow up .26%; S&P 500 up

days (the previous five days were 4.2, 4.6, 2.5, 1.6 and 2 million shares respectively), which is typically considered an indicator of the presence of informed traders, and the trading by Well Advantage represented a significant component of that volume (12.69%). And the next day, the last trading day before the announcement, which might have felt some effect from the previous day's trading, the price was again *down*, opening at 17.14 and closing at 17.06, after hitting an intraday low of 16.66.

So while the stock was up overall during the trading period, it was *down* on the day of the most extensive trading, as well as the next trading day. And it cannot be argued that this was a correction of sorts reflecting the actual value of the information to the market: after the announcement, the stock opened at 26.15 on July 23 and closed at 25.90, an increase of 51.8% from the previous day's close of 17.06.

#### *D. Trading by an Investment Banker in Advance of Various Deals*

In February 2014, the SEC brought an enforcement action against an investment banker, Frank Hixon, who was a senior managing director at Evercore Group, a subsidiary of Evercore Partners.<sup>133</sup> On several occasions Hixon used information he obtained in the course of his business to trade, reaping nearly a million dollars in illicit profits for "himself, his father, and the mother of his child."<sup>134</sup> On three occasions he traded in the shares of companies that had retained Evercore to advise them on potential transactions, and on one occasion he traded in the shares of Evercore in advance of a positive earnings announcement.<sup>135</sup> In April 2014, Hixon pled guilty to criminal charges of insider trading, and was later sentenced to 30 months in prison.<sup>136</sup>

##### *1. Trading in the Shares of Westway I*

On two occasions, Hixon traded in the shares of Westway Group. In September 2011, Westway had retained Evercore to advise it on the sale of one of its two business units and Hixon served as Evercore's lead partner on the engagement.<sup>137</sup> From October 21, 2011, through December 15, 2011, Hixon purchased 229,000 shares of Westway in the account of the mother of his child.<sup>138</sup> The SEC's complaint does not specify how much was purchased nor on what days the purchases were made, but does indicate that there were purchases throughout that period, and at least some of the trades occurred on December 13, 2011.<sup>139</sup>

What is particularly interesting about this trading is that Westway stands at the opposite extreme of companies like Wyeth or Dell (stocks that were at issue in the SAC Capital and Diamondback cases). Westway, which traded on Nasdaq, was a small company

---

.25%; Nasdaq up .14%), although the energy sector was down albeit by a smaller amount than Nexen (down .71%).

133. Complaint, SEC v. Hixon, 14-CV-0158 (W.D. Tex. Feb. 20, 2014) [hereinafter Hixon Complaint].

134. *Id.* ¶¶ 1–2.

135. See Maria Armental, *Ex-Evercore Senior Managing Director Sentenced for Insider Trading*, WALL ST. J. (Aug. 1, 2014), <https://www.wsj.com/articles/ex-evercore-senior-managing-director-sentenced-for-insider-trading-1406923777>.

136. See *id.*

137. See Hixon Complaint, *supra* note 133, ¶ 22.

138. See *id.* ¶ 24.

139. See *id.*

with a market capitalization of just over \$100 million. It was also very thinly traded: on many of the days during the trading period the total volume was only in the *hundreds* or *low thousands* of shares. On only about a dozen occasions was the volume in the tens of thousands, and the highest reported volume during this period was 68,415 shares on December 14, 2011, which was almost twice the next highest volume day. Hixon's purchase of 229,000 shares accounted for almost 63% of the total reported volume traded between October 21 and December 14 (365,149), and it is likely that on some days the entire volume consisted of his purchases, meaning all of the purchases those days were made by someone with inside information.

What happened to the price of the stock during this period? On October 21, the first day of trading, the price went *down*, opening at 4.07 and closing at 4.03. Over the next several weeks the price fluctuated: it first rose, hitting a high of 4.34 at the close on November 18; it then fell gradually, closing at 3.96 on December 12. On December 13, a day we know there were purchases, the stock opened at 3.94 and closed down at 3.93. The next day, the last insider trading day, the stock rebounded slightly, opening at 3.92 and closing at 3.94. The potential transaction was publicly announced before the market opened on December 15, and the announcement included language intended to attract offers for Westway's other business unit. On December 15, the stock opened at 4.14 and closed at 4.40, an increase of 11.67% over the previous day's close.<sup>140</sup> On December 20, Westway announced that it had received an unsolicited offer for its other business unit. The following day, the stock opened at 4.56 and closed at 5.82, an increase of over 31% over the prior day's close of 4.42.<sup>141</sup>

Overall, during the seven-and-one-half weeks in which the informed trader accumulated a 229,000 share long position, which represented an astounding 63% of the total reported trading volume during that period, the stock *declined* about 3.2%, going from 4.07 at the open on October 21 to 3.94 at the close on December 14 just before the announcement. The imputed illicit profits from these transactions totaled at least \$556,000.<sup>142</sup>

## 2. Trading in the Shares of Westway II

Following the December 2011 announcement and the unsolicited offer, Westway continued to consider various merger and acquisition possibilities, and Hixon continued to advise them.<sup>143</sup> As a new deal to acquire Westway became likely, Hixon again made purchases through his child's mother's account. From September 26, 2012, to November

---

140. The complaint specifies that the entire 229,000 position had been built before the announcement. *See id.* ¶ 25). The announcement was made at 6:00 AM on December 15. *See Westway Group, Inc. Announces Review of Strategic Alternatives; Receives Preliminary Offer for Westway Feed Products*, GLOBE NEWSWIRE (Dec. 15, 2011, 6:00 AM) <http://globenewswire.com/news-release/2011/12/15/463781/240818/en/Westway-Group-Inc-Announces-Review-of-Strategic-Alternatives-Receives-Preliminary-Offer-for-Westway-Feed-Products.html>.

The Complaint in *Hixon* erroneously states that “[o]n the next trading day following the announcement Westway’s, stock price rose 12.5% from the prior day’s close.” The trading data shows that the run-up was 11.5% and occurred on December 15. Hixon Complaint, *supra* note 133, ¶ 26.

141. The 47.3% increase cited in the Hixon Complaint, *supra* note 133, ¶ 27, must be from the close on December 14.

142. Hixon Complaint, *supra* note 133, ¶ 28.

143. *Id.* ¶ 30.

27, 2012, Hixon effectuated purchases of 67,545 Westway shares.<sup>144</sup> Again, the complaint does not specify how much was purchased on what day, except that there were some purchases on September 26 and October 9, and presumably on November 27.<sup>145</sup>

On the first day of trading (September 26), the stock went up, opening at 6.21 and closing at 6.25, but after that the price steadily declined. On October 9, when we know there was some trading, the stock opened at 5.40 and closed down at 5.18. The stock hit a low of 5.10 at the close on October 19, but then rebounded to close at a high of 6.31 on October 31. The stock then declined again, opening at 5.49 and closing at 5.46 on November 27 (the last day of insider trading). After the insider trading ceased, the stock rebounded a bit closing at 6.08 on December 20. After the markets closed on December 20, Westway announced that it would be acquired in a tender offer.<sup>146</sup> The next day, the stock opened at 6.60 and closed at 6.69, an increase of 10% over the previous day's close.

Overall, during the period of insider trading, the stock price *declined*, going from 6.21 at the open on September 26 to 5.46 at the close on November 27, a drop of 12%. From the start of the insider trading (September 26) to the date of the announcement (December 20), the stock price declined by 2%.

### 3. Trading in the Shares of Titanium

Hixon learned that Titanium was negotiating to be acquired during a meeting that Evercore had with Titanium representatives on October 23, 2012.<sup>147</sup> That same day, Hixon purchased 20,000 shares of Titanium stock in his child's mother's account.<sup>148</sup> On October 31, 2012, he purchased another 20,000 shares in that account and 15,000 shares in his father's account.<sup>149</sup> On November 9, 2012, Titanium announced that it would be acquired in an all cash offer.<sup>150</sup>

On October 23, the stock opened at 12.12 and closed up at 12.23. The price fluctuated over the next couple of days and on October 26 it closed down at 11.82. On October 31, the second insider trading day, the stock opened at 11.91 and closed down at 11.71. The stock rebounded slightly the next day, then fluctuated a bit, before closing at 11.57 on November 9, the last full trading day before the announcement. Overall, the stock was up on one of the insider trading days and down on the other; the stock was *down* 3.3% from the open on the first insider trading day to the close on the second insider trading day, and *down* 4.5% from the first insider trading until the announcement. After the announcement the stock opened at 16.55 and closed at 16.50, an increase of 42.6% over the previous day's close of 11.57. The trading generated over \$255,000 in illicit profits.

### 4. Trading in the Shares of Evercore

Hixon also traded in the shares of his own company, Evercore, in advance of a positive quarterly earnings announcement. Before the market opened, on January 30, 2013,

---

144. *Id.* ¶ 33.

145. *Id.*

146. *Id.* ¶ 34.

147. Hixon Complaint, *supra* note 133, ¶ 38.

148. *See id.* ¶ 40.

149. *See id.* ¶¶ 41–42.

150. *See id.* ¶ 43.

Evercore announced record profits. Hixon purchased shares on the two preceding days,<sup>151</sup> and this time the stock reacted as expected, going up both days albeit marginally: the stock opened at 35.46 on January 28 and closed up at 35.50; the stock was also up the second trading day, January 29, closing at 35.60, although oddly it opened at 35.38, down from the previous day's close. After the announcement the stock opened at 36.89 and closed at 37.42, an increase of 5.1% from the previous day's close.

#### *E. Trading in Advance of Various Takeover Announcements*

In March 2014, the SEC brought an action alleging multiple instances of insider trading in advance of several takeover or merger announcements. The source of the information worked at a major law firm that was advising one of the parties to the upcoming transactions. The source passed the information, through a middleman, to a broker who traded on the basis of the information for his own account and for some of his customers. The unlawful conduct took place over a period of several years, involved transactions in 13 different stocks, and yielded a total of more than \$5.6 million in illicit profits.<sup>152</sup>

What happened to the price of the stocks in light of this insider trading? Once again there are several instances where the stock price moved in the expected direction and where the market may have been reacting to the presence of an informed trader and incorporating at least some of the inside information into the price of the security.<sup>153</sup> Indeed, in one particularly telling example, involving trading on the basis of material nonpublic information concerning the acquisition of Smithtown Bancorp by People's United Financial in 2010, the market not only moved in the expected direction, but appears to have *fully* impounded the information, moving the share price almost exactly to the tender offer price, such that the stock price did not move at all after the takeover announcement. In that case, the SEC even stated in its complaint that the run-up was likely due, at least in part, to the insider trading at issue.<sup>154</sup>

But once again there are also some counterexamples, situations where the stock moved in the opposite direction, or barely moved at all, or moved in haphazard ways. These

---

151. *See id.* ¶¶ 48–52.

152. *See* Complaint at ¶¶ 1–8, SEC v. Eydelman, No. 14-CV-01742 (D.N.J. Mar. 19, 2014) [hereinafter Eydelman Complaint].

153. *See, e.g., id.* ¶ 120 (trading in advance of tender offer for CAN Surety) (per Bloomberg, stock went from 18.79 at the open on first day of trading to 19.25 at the close on the last day before the announcement; stock opened at 23.13 after the announcement); *Id.* ¶¶ 178–91 (trading in shares of International Coal) (per Bloomberg, stock opened at 10.28 on the day the trading occurred and closed at 11.03; following the announcement, which occurred before the open on the next trading day, the stock opened at 14.45).

154. *See id.* ¶ 117. The trading, which occurred over a roughly one-week period, was substantial, accounting for approximately 13.6% of the total trading volume during that period. The stock price increased from just over 3 when the trading started to 4.01 at the close on the last trading day. The announced acquisition deal price was \$4 per share, and the stock price did not increase following the announcement. *See id.* ¶¶ 113–17. In another interesting example, the defendants purchased shares of Sealy Corp. in advance of an acquisition by Tempur-Pedic. Although the price dropped very slightly (one cent) on September 20, 2012, the first day they traded, the stock went from 2.06 at the open to 2.20 at the close on the next day (Sept. 21) when the defendants engaged in significant purchases. The volume was way up that day, and the defendants' purchases amounted to almost 8% of the total volume. The 2.20 close is interesting because that ended up being exactly the announced takeover price. However, the stock declined in the three subsequent days following the surge and closed at 2.14 the day before the announcement. In any event, the effect of the defendant's trading may have been limited owing to a far more significant run-up in the price of the stock in the preceding month. *See* Eydelman Complaint, *supra* note 152 ¶¶ 241–51.

examples are discussed below.

### 1. Trading in the Shares of Brink's Home Security

Participants in the scheme purchased shares and call options of Brink's Home Security in advance of an announcement that the company would be acquired by Tyco.<sup>155</sup> The trading took place between December 30, 2009, and January 15, 2010. The complaint specifies that the first purchase, a very small order, was executed on December 30 at 32.66, which was the opening price.<sup>156</sup> That day the stock closed down at 32.36. The following day, when there were far more significant purchases totaling over \$700,000,<sup>157</sup> the stock rebounded, opening at 32.33 and closing at 32.64. The participants continued to purchase shares between January 4 and January 15, although the complaint does not specify the amounts or the dates. Given the overall dollar figures provided in the complaint, however, it is likely that they purchased a little bit more than half of their shares during this time.<sup>158</sup> On January 4 the price declined, closing at 32.58. Thereafter, the price went up and closed at a high (for this period) of 33.29 on January 6. But after that, the price declined steadily, eventually closing at 31.42 on January 15 (the last trading day before the announcement). Overall then, the price *declined* from 32.66 to 31.42 (about 3.8%) during the insider trading period, in spite of the fact that informed traders purchased over \$1.6 million worth of shares. After the announcement the stock jumped, opening at 41.85 on January 19 and closing at 41.54, and increase of more than 32% from the previous day's close of 31.42.

### 2. Trading in the Shares of Graham Packaging Company

Participants in the scheme purchased shares of Graham Packaging in advance of an announcement that the company would be acquired by Silgan Holdings. The trading occurred over two days and involved the purchase of 25,750 shares for \$430,820:<sup>159</sup> on April 11, 2011, the stock opened at 16.72 and closed up at 16.79; on April 12, 2011, the stock opened at 16.68 (down from the previous days' close) and again closed up at 16.71. But overall, the closing price on April 12th was virtually unchanged (down one cent), from the price at the start of the trading, and likely down a bit more from the price of any purchases on April 11th. After the announcement, which occurred before the open on April 13th, the price surged, opening at 21.53 and closing at 22.22, an increase of almost 33% from the previous day's close (16.71).

### 3. Trading in the Shares of PharMerica

Participants in the scheme purchased shares and call options, and sold some put options, of PharMerica in advance of a tender offer by Omnicare. According to the SEC's complaint, the trading took place between June 21, 2011, and August 22, 2011, although it does not specify how much was traded on what days.<sup>160</sup> The trading was substantial, involving purchases of some \$7.5 million worth of PharMerica stock, plus additional

---

155. *See id.* ¶ 83.

156. *See id.*

157. *See id.* ¶ 85.

158. *See id.* ¶ 96.

159. Eydelman Complaint, *supra* note 152, ¶ 144.

160. *Id.* ¶¶ 200, 203.



options, which generated total illicit profits of more than \$1.5 million.<sup>161</sup>

What happened to the stock price in this case is particularly confounding. According to the complaint, there was some trading on June 21, 2011; on that day the stock opened at 11.98 and closed up significantly at 13.36 (up 11.5%). But over the next two months before the announcement, the stock fluctuated considerably hitting a high of 13.89 at the close on July 8 (ironically the same closing price as the day of the announcement), but then falling back down to hit a low of 10.69 at the close on August 8. The stock bounced back a bit after that, closing at 11.77 on August 15, but then falling back to close at 10.93 on August 22, the day before the announcement. After the announcement on August 23, the stock opened at 14.80 and closed at 13.89.

Overall, the price of the stock *declined* during the trading period, going from 11.98 at the open on the first day of trading to 10.93 at the close on the last day of trading, and the stock was down significantly on that last day from the trading period high of 13.89. It is of course possible that the bulk of the insider trading occurred on that first day when there was a significant run-up, although the SEC's complaint does specify that trading continued throughout this period.<sup>162</sup> But even so, it would suggest that to the extent the market detected an informed trader on that first day, it lost sight of the message long before the relevant event took place. It is also possible that on any given day that there was insider trading, the price moved in the correct direction (the information is not disclosed in the complaint). But the fact remains that overall the price slid before the announcement, suggesting that whatever information the market was able to glean from the informed trading, that information was never truly incorporated into the price of the security.

#### IV. WHY THE MARKET MAY NOT ALWAYS DETECT INFORMED TRADING

The examples described above are just that: examples. I have made no attempt to be comprehensive, or to look at every recent instance of known insider trading. But these examples cover a wide variety of situations, involving different types of informed traders (from professional traders who engaged in multiple instances of insider trading to opportunistic traders who engaged in one-off transactions), who traded in different kinds of stocks (from widely traded large cap stocks to thinly traded small-caps), in advance of different kinds of events (takeovers, earnings announcements, and even the results of a clinical drug trial). Although the sample set is much too small to draw any broad conclusions about when and why insider trading affects market prices, the examples do seem to show one thing pretty clearly: the market does not *always* move in the "correct" direction when there is insider trading. Often it does, but there are many instances when it does not, and even cases where the market moves in the opposite direction. It is of course possible that some of these cases are simply outliers, whose odd results can be explained away by the existence of unusual intervening events. Perhaps a new large scale statistical study would reveal hidden patterns that would explain away seemingly aberrational results, or at least identify the specific circumstances in which the market is able to detect the presence of an informed trader and when it cannot, and thus provide a better understanding

---

161. *Id.* ¶¶ 206, 210.

162. According to the Complaint, the participants purchased 695,650 shares of PharMerica for a total of \$7,543,880. *Id.* ¶ 206. If these numbers are correct, the average purchase price would have been about 10.84, meaning that few shares were likely purchased on the first day of trading, and the bulk of trading must have occurred near the low marks towards the end of the trading period.

of why the market sometimes moves in what may appear to be counter-intuitive ways. But I will start by pointing out a few of the simpler and more obvious—and equally intuitive—reasons why insider trading does not always move the market in the expected direction.

As an initial matter, some insider trading is obviously going to be too small to have any impact on the market price of the stock, particularly when the security at issue is widely traded. Small transactions will not affect the overall volume, will not cause an imbalance of orders that could result in a change to the quote, and will not stand out in any kind of way that would signal to other market participants that the trader possesses valuable information. A 10,000 share transaction by an informed trader in a stock whose daily volume is routinely in the tens of millions is unlikely to have any impact on the market price of that security.<sup>163</sup>

While the small size of the trading in light of the trading volume may explain why some informed trading does not have an effect on price, it cannot account for all of the instances discussed above, some of which involve paradigmatic cases of trading that is so extensive (either overall, or in comparison to the trading volume, or both) that it should have been picked up by the market but was not.

At one extreme, there is the case of very large trades in a thinly traded stock, Westway, where the market moved in the opposite direction. There is no ready explanation for this, except perhaps that there are some stocks that are so thinly traded that there is no real market to speak of: the market may have failed to detect fairly extensive informed trading because almost no one was paying attention to the stock.

At the other extreme, there are the examples of very extensive insider trading by market professionals, much of it in widely traded stocks, with little or no impact on the market price, or where the market moved in the opposite direction. The fact that the market

---

163. The very high volume of shares traded daily in the US markets may also make it more difficult for market participants to pick up the presence of smaller scale informed trading: the more active the market, the less likely that any particular trading activity will stand out. Higher overall volumes usually reflect higher volumes across many individual stocks, which can make it harder for market participants to pick up small aberrational patterns that could reveal the presence of an informed trader. In the years since Meulbroeck's empirical study of illegal insider trading, overall trading volume in the US markets has grown exponentially. The period from 1980 to 1989, the time frame covered by Meulbroeck's study, was itself a period of rapid growth in the size of the market, but it is dwarfed by what happened afterwards. Consider that in 1980 the *total* share volume on all registered US exchanges was only 15.5 billion (SEC ANNUAL REPORT 145 (1990)), with an additional 6.7 billion shares traded on Nasdaq (SEC ANNUAL REPORT 132 (1981)). By 1989 the *total* share volume on all registered US exchanges had grown to 54.4 billion (SEC ANNUAL REPORT (1990), at 145), with an additional 33.5 billion shares traded on Nasdaq (*id.* at 144). By 2002 the total share volume on all registered US exchanges reached 481.4 billion (SEC ANNUAL REPORT 137 (2003)), and the share volume on Nasdaq was 441 billion (ABOUT NASDAQ STOCK MARKET, NASDAQ 53, <https://www.nasdaq.com/about/about.pdf>). Although total share volume peaked around the time of the financial crisis in 2008, and has declined since then, it is still considerably higher than it was 20 years ago. In 2010, the total share volume on the NYSE, ARCA/AMEX, and Nasdaq was almost 1.1 trillion shares and in 2011 the number stood at just over 975 billion (INS. INFO. INST. & FIN. SERVS. ROUNDTABLE, THE FINANCIAL SERVICES FACT BOOK 2013 159 (2013), [https://www.iii.org/sites/default/files/docs/pdf/Financial\\_Services\\_Factbook\\_2013.pdf](https://www.iii.org/sites/default/files/docs/pdf/Financial_Services_Factbook_2013.pdf)). The average consolidated *daily* US equity volume for the 11 months from November 2017 through September 2018 was over 6.87 billion shares. *US Equity Issuance and Trading Volumes*, SIFMA, <https://www.sifma.org/resources/research/us-equity-stats/> (click "Download" to download spreadsheet, then click "Trading By Exchange" tab to view data). This despite the fact that the number of exchange listed public companies is now about half what it was in 1990. Michael Wusthau & Gregory Zuckerman, *Fewer Listed Companies: Is that Good or Bad for the Stock Market*, WALL ST. J. (Jan. 4, 2018), <https://wsj.com/articles/fewer-listed-companies-is-that-good-or-bad-for-stock-markets-1515100040>.

sometimes failed to detect the presence of informed traders even in situations involving stocks that are constantly being monitored by investors, analysts, and market professionals, is puzzling and suggests that there are real limits to market transparency.

One possible reason is that informed traders do not like to advertise their presence, and indeed often take great pains to shield it. They do this, in part, because insider trading is illegal and informed traders do not want to invite scrutiny from government agents and regulators eager to prosecute them. But they also do this because they do not want the market to pick up the presence of an informed trader, precisely because they do not want the market to move in the direction of the expected outcome in order to be able to capture as much of the gain for themselves as possible.<sup>164</sup> To the extent that the market moves in the expected direction as a result of insider trading, it diminishes the informed trader's ability to further profit from the information (it does not negate it, but it does diminish it by making further transactions more costly). As a result, informed traders, particularly sophisticated professional traders such as those at hedge funds, will typically take great pains to hide the full extent of their trading from the market, particularly if they are building a significant position in the security.<sup>165</sup>

There are a number of ways this can be done, some of which have only recently come to the fore, such as the use of "dark pools" and other trading platforms that provide a measure of anonymity. Dark pools are alternative trading systems (ATS), typically run by large banks and other large financial institutions, which allow traders of large blocks of stock to trade off-exchange in relative secrecy. Operators of dark pools do "not provide quotes into the public quote stream,"<sup>166</sup> and do not display "subscribers' orders to any person or entity either internally within the ATS dark pool or externally beyond the ATS dark pool."<sup>167</sup> Rather, dark pools match buyers and sellers without publicly displaying bids and offers. The trades are reported out after the fact and are included on the consolidated tape; but while the volume is visible to the market, the trades are reported as "over-the-counter" so the dark pool that executed the trade is never identified.<sup>168</sup> As a result the market cannot readily know the source of the trade. The use of dark pools has increased dramatically in recent years: about 45% of the average daily volume is now traded through dark pools,<sup>169</sup> and according to one recent account "[m]ore shares now change hands in

164. See Adam Pritchard, *United States v. O'Hagan: Agency Law and Justice Powell's Legacy for the Law of Insider Trading*, 78 B.U. L. REV. 13, 52 (1998) ("Insider traders, knowing that they have a monopoly over the relevant information, trade strategically, because extracting the full monopoly benefit from their information depends upon concealing their trading."). This suggests, of course, that even if insider trading were legalized, the trading would not necessarily bring information to the market.

165. See *id.* ("Insider traders split their trades between the equity and options markets, break their trades into small blocks, trade through off-shore accounts, and use multiple brokers to execute the trades, all in an attempt to prevent other traders in the market from discovering that they are trading on inside information.").

166. *Testimony Concerning Dark Pools, Flash Orders, High Frequency Trading, and Other Market Structure Issues: Testimony Before the Senate Banking Subcommittee on Securities, Insurance, and Investment*, 111th Cong. (2009) (statement of James A. Brigagliano, SEC) (transcript available at <https://www.sec.gov/news/testimony/2009/ts102809jab.htm>).

167. Notice of Filing of Proposed Rule Change Relating to Publication of Certain Aggregate Daily Trading Volume Data, Exchange Act Release No. 34-61361, 75 Fed. Reg. 3768 (Jan. 14, 2010), <https://www.sec.gov/rules/sro/finra/2010/34-61361.pdf>.

168. See *id.* at 3768-69 (discussing trade methods).

169. See COMM. ON CAPITAL MKTS. REGULATION, THE STATE OF THE U.S. EQUITY MARKETS, Fig. 2 (2017), <http://www.capmktreg.org/wp-content/uploads/2017/10/2017-CCMR-EMS-Empirical-Updates.pdf> (showing 45% of U.S. trading volume takes place in the dark); see also Scott Patterson, *Lawmakers Debate Dark Pools at*

dark pools than on the New York Stock Exchange.”<sup>170</sup>

The case of the Wyeth and Elan trading at SAC Capital, described above, offers an illustration of this phenomenon. In that case the portfolio manager at a hedge fund had received negative news about the results of a drug trial and based on that information liquidated a very large long position (worth about \$700 million) in the stocks, then established an even larger short position (worth about \$960 million). According to the SEC’s complaint, these trades were kept hidden even within the hedge fund, as the head trader explained:

[w]e executed a sale of over 10.5 million ELN for [various portfolios at CR Intrinsic and Investment Adviser A] at an avg price of 34.21. This was executed quietly and efficiently over a 4 day period through algos and darkpools and booked into two firm accounts that have very limited viewing access.<sup>171</sup>

It turns out that the specific trades referenced in that quotation (which involved liquidating the long position) were accompanied by a price decline (indicating that the market may have picked up the presence of an informed trader), but the use of dark pools and other anonymizing tools may help explain why the subsequent trading (which involved building the significant short position that was accompanied by a price *increase*), was not picked up by the market.

Another way market professionals try to conceal what they are doing is by building a position while trading in and out of the security. A good example of this is Rajaratnam’s trading in ATI Technologies discussed above. In that case, Rajaratnam obtained nonpublic information that AMD would acquire ATI, and so he built a significant long position in ATI totaling over six million shares. He not only built the position incrementally (112 transactions spread out over a period of 54 days), but he staggered the transactions, mixing buys and sells (79 buys totaling about 9.6 million shares and 33 sells totaling over 3.55 million shares). By moving in and out of the security in this way Rajaratnam made it very difficult for the market to perceive that he was building a significant long position, which may account for the lack of market effect. Evidence presented at Rajaratnam’s trial indicates that Rajaratnam deliberately used this strategy, and instructed others to do so, in order to conceal the fact that he was an informed trader.<sup>172</sup> This type of trading strategy obviously increases transaction costs, but it can result in significant cost savings if the market price would have otherwise moved in response to the trading.

---

Hearing, WALL ST. J. (Feb. 28, 2014, 1:05 PM), <https://blogs.wsj.com/moneybeat/2014/02/28/lawmakers-debate-dark-pools-at-hearing/> (noting that at that time dark pools accounted for about 40% of equity trading).

170. Sam Mamudi & Anna Massa, *Dark Pools*, BLOOMBERG (July 21, 2017), <https://www.bloomberg.com/quicktake/dark-pools>. See also Nathaniel Popper, *As Market Heats Up, Trading Slips into Shadows*, N.Y. TIMES (Mar. 31, 2013), <http://www.nytimes.com/2013/04/01/business/as-market-heats-up-trading-slips-into-shadows.html> (“As the stock market continues to climb, trading has increasingly migrated from established bourses like the New York Stock Exchange to private platforms, including dark pools, that are largely hidden from public view. The shift is helping big traders hide what they are doing in the markets . . .”).

171. CR Intrinsic Complaint, *supra* note 22, ¶ 46. “[A]lgos” presumably refers to algorithmic trading, which is “commonly defined as the use of computer algorithms to automatically make certain trading decisions, submit orders, and manage those orders after submission.” Terrence Hendershott et al., *Does Algorithmic Trading Improve Liquidity?* 66 J. FIN. 1, 1 (2011).

172. See Government’s Sentencing Memorandum at 13, *United States v. Rajaratnam*, S2 09 Cr. 1184 (RJM), 2011 WL 3482059 (S.D.N.Y. 2011) (“Rajaratnam instructed Chiesi and Smith to buy and sell stock when in possession of inside information, showing a pattern of trading to create the false impression of not having inside information. Rajaratnam himself followed this practice.”) (citations omitted).

The simple fact is that traders who want to build a significant position have a financial incentive to keep the market from knowing what they are doing, whether or not they are trading on nonpublic information, and these and other stratagems may make it possible for them to effectively conceal their hand. When that financial incentive is combined with the very severe criminal and civil penalties for insider trading, it is easy to see why informed traders would want to stay under the radar. The use of dark pools, alternative trading platforms, and trading strategies designed to confuse the market, may help explain why even large scale informed trading by market professionals is not always detected by the markets.

There are undoubtedly many other reasons why informed trading is not always picked up. At the most basic level, markets are impersonal and increasingly electronic, and orders are routinely routed through a variety of competing exchanges in order to get best execution, all of which helps conceal the source. The fragmentation of the market has further eroded the ability to detect trading irregularities: U.S. stocks now trade on more than 40 venues, including more than 30 dark pools and 11 national exchanges.<sup>173</sup> The gradual demise of the open-outcry auction model has also contributed to the inability to detect insider trading.<sup>174</sup> Because informed traders do not disclose their presence, the market must deduce it through the trading itself, but trading by informed and uninformed traders is usually indistinguishable on its face.<sup>175</sup> In light of all this, it is a bit surprising that the market picks up the presence of informed trading as often as it does.<sup>176</sup> And just to reiterate: the market does very often move in the “correct” direction when there is insider trading, suggesting that the market may be picking up the presence of an informed trader. My only point here—my modest conclusion—is that there are enough examples, involving enough different kinds of stocks and trading around enough different types of events, to rebut the claim that insider trading *always* pushes the price of a stock in the correct direction. Sometimes it does and sometimes it does not.

The fact that insider trading does not always move the market in the correct direction calls into question the broader claim that insider trading contributes to market efficiency, and is therefore beneficial.<sup>177</sup> Insider trading may send a signal to the market that gets incorporated in the price of the security, but it might not. At the very least, this undermines what is perhaps the most cogent argument that has been advanced against insider trading

---

173. Jonathan Macey & David Swensen, *Recovering the Promise of the Orderly and Fair Stock Exchange*, 42 J. CORP. L. 777, 780 (2017).

174. In an open-outcry auction model, all bids and offers are put out to the trading floor (literally shouted out for all to hear) allowing other brokers to compete for the order on price. While open-outcry auction was once commonplace, it is now increasingly rare. The New York Stock Exchange still has an open-outcry component, but even on the NYSE the vast majority of trades are now routed electronically: as of 2014, about 85% percent of all orders on the NYSE were routed electronically. See Michael Hiltzik, *End of an Era: The NYSE Floor Isn't Even Good for PR Photos Anymore*, L.A. TIMES (Oct. 7, 2014), <http://www.latimes.com/business/hiltzik/la-fi-mh-the-nyse-floor-20141007-column.html#>.

175. See generally Sugato Chakravarty & John J. McConnell, *Does Insider Trading Really Move Stock Prices?* 34 J. FIN. AND QUANTITATIVE ANALYSIS 191 (1999) (finding no difference in price effect between informed and non-informed trading).

176. See BAINBRIDGE, INSIDER TRADING, *supra* note 6, at 182–83 (noting that anonymity of impersonal markets makes it difficult for insider trading to be picked up by the market, and arguing that to the extent it is, it must be through derivatively informed trading which functions slowly and sporadically, and is therefore an inefficient way to bring information to the market).

177. Pritchard, *supra* note 164, at 52 (“Because insiders can and do conceal their trading, insider trading does little to enhance the efficiency of stock market pricing.”).

prohibitions. If insider trading does not always bring information to the market, if it does not always result in more accurate pricing of securities, then there is little to be said in its favor, and not enough to overcome the serious concerns about investor confidence and market integrity.<sup>178</sup>

---

178. There are, of course, other arguments that have been made against insider trading prohibitions, but the argument from market efficiency has stood up best. Manne himself offered two principal arguments for the alleged positive benefits of insider trading: that it was market efficient and that it was a good way to compensate executives. While Manne insists that “the argument for a strong positive relationship between market efficiency and insider trading has proved to be very robust,” he acknowledges that the executive compensation argument is “perhaps less robust than [he and others] had originally assumed.” Henry G. Manne, *Insider Trading: Hayek, Virtual Markets, and the Dog That Did Not Bark*, 31 J. CORP. L. 167, 169–71 (2005).