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No Pain, No Gain: The Criminal Absence of the Efficient Capital Markets Theory from Insider Trader Sentencing

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NOTES

NO PAIN, NO GAIN: THE CRIMINAL ABSENCE OF THE EFFICIENT CAPITAL MARKETS THEORY FROM INSIDER TRADING SENTENCING

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INTRODUCTION

Michael Douglas's notorious Wall Street character Gordon Gekko once proclaimed, "I don't throw darts at a board. I bet on sure things. . . . Every battle is won before it is ever fought."[1] Mr. Gekko famously epitomized the greed of 1980s traders through his ability to trade stocks based on information he had exclusive access to, thereby allowing himself to place bets on events that were certain to occur.[2] While traders of publicly traded securities are presumed to base their decisions on timely and accurate information,[3] when that information is unknown to the public, the resulting gains or avoided losses are not legitimate.[4] Knowledge of such information provides traders like Gekko with an unfair advantage in the fierce battle over profits. Known as insider trading, this conduct is contrary to the "justifiable expectation of the securities marketplace that all investors . . . have relatively equal access to material

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[1] WALL STREET (Twentieth Century Fox Film Corp. 1987).

[2] *See* Tim Arango, *Greed Is Bad, Gekko. So Is a Meltdown.*, N.Y. TIMES, Sept. 8, 2009, at C1.

[3] *See* Stephen M. Bainbridge, *Insider Trading Under the Restatement of the Law Governing Lawyers*, 19 J. CORP. L. 1, 9 (1993).

[4] *See* U.S. SENTENCING GUIDELINES MANUAL § 2B1.4 (2010).

information."[5] Arguably, the incentives and opportunities today to illegally profit from inside information have never been greater. Take the hedge fund industry and one of its giants, the Galleon Group, which had over $7 billion in assets.[6] Galleon's CEO, Raj Rajaratnam, who Forbes Magazine labeled as a "Money Maverick" despite the difficult economy, attributed his success to "frequent visits with companies" and "conversations with execs who invest in his fund."[7] Almost simultaneous with these accolades came Rajaratnam's arrest in connection with one of the "biggest criminal case[s] involving hedge fund insider trading."[8] Allegedly, Rajaratnam, along with a network of others, including directors at high profile companies such as Intel and McKinsey, netted millions in illicit profits by passing inside information gleaned from their jobs to trade on publicly traded companies such as Google.[9]

The prevalence of insider trading at all levels of society is also alarming, as evidenced in a recent SEC investigation for possible criminal violations of securities laws. Following up on a tip of "suspicious activity," improprieties, and "trading on non-public information" it was revealed that the group at issue had "no compliance system in place to ensure that its employees did not engage in insider trading."[10] The allegations centered not on a vast network of executives and directors but on longtime employees who were lawyers.[11] Their employer—the SEC![12]

To combat this epidemic, regulatory authorities have increased enforcement efforts through a variety of measures,

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[5] SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 848 (2d Cir. 1968).

[6] Matthew Miller & Duncan Greenberg, *Money Mavericks*, FORBES, Oct. 19, 2009, at 114.

[7] *Id.*

[8] Walter Hamilton & Martin Zimmerman, *COURTS; Hedge Fund Scheme Alleged; Authorities Arrest Six Suspected of Extensive Insider Trading After a Wiretap Investigation.*, L.A. TIMES, Oct. 17, 2009, at B1.

[9] *See id.*

[10] *See* Bernie Becker, *Insider Trading Inquiry Cites Lawyers at S.E.C.*, N.Y. TIMES, May 16, 2009, at B3.

[11] *Id.*

[12] *Id.*; *see also* Brody Mullins, Tom McGinty & Jason Zweig, *Congressional Staffers Gain From Trading in Stocks*, WALL ST. J., Oct. 11, 2010, at A1 (highlighting the prevalence and legality of congressional aids trading on the basis of inside information about pending legislation, such as tax incentives for renewable energy sources).

making insider trading a top priority.[13] In the Rajaratnam case, wiretapping was used for perhaps the first time to detect the passing of inside information, which "reflects that the government thinks this is serious conduct involving a significant amount of money."[14] But with its limited resources, the SEC is forced to take creative measures to counteract criticisms of being soft on white-collar criminals and Wall Street.[15] The SEC's aggressive approach and unfettered power, though, produces far more dangerous consequences when it comes to criminal prosecutions in which incarceration is at stake, unlike the mere threat of monetary damages and a loss of reputation in civil suits.

Criminally, insider trading—that is, trading public securities on the basis of inside, undisclosed information—is punished according to the gains received by the insider as a result of the trading.[16] In other words, the greater the gains, the longer the sentence. The potential punishment is high, as the already harsh penalties under the Insider Trading and Securities Fraud Enforcement Act of 1988[17] were increased in 2002 to possible fines of up to $5 million for individuals and prison sentences of up to twenty years.[18] Given its only mixed success in prosecuting criminal insider trading cases,[19] the government has every

[13] In 2008, the SEC brought the second-highest number of insider trading cases in its history, up more than twenty-five percent from 2007. U.S. SEC. & EXCH. COMM'N, 2008 PERFORMANCE AND ACCOUNTABILITY REPORT 12, *available at* http://www.sec.gov/about/secpar/secpar2008.pdf. More recently, the most extensive insider trading investigation ever conducted by the SEC has been brought to light, covering three years and focusing on the network of information sharing among consultants, bankers, traders, and fund managers. *See* Susan Pulliam et al., *U.S. in Vast Insider Trading Probe*, WALL ST. J., Nov. 20, 2010, at A1.

[14] Hamilton & Zimmerman, *supra* note 8 (quoting the former head of the securities fraud unit in the Manhattan U.S. Attorney's office).

[15] *See* HOWARD M. FRIEDMAN, SECURITIES AND COMMODITIES ENFORCEMENT 191 (1981) (noting the criticism of white-collar criminals receiving lesser sentences than convicts of common crimes).

[16] *See* U.S. SENTENCING GUIDELINES MANUAL § 2B1.4 (2010).

[17] Pub. L. No. 100-704, 102 Stat. 4677 (codified as amended in scattered subsections of 15 U.S.C. § 78 (2006)).

[18] 15 U.S.C. § 78ff(a).

[19] *See* ALAN R. BROMBERG & LEWIS D. LOWENFELS, BROMBERG & LOWENFELS ON SECURITIES FRAUD & COMMODITIES FRAUD § 9.4 (2d ed. 2010). The SEC lacks criminal jurisdiction over securities violations, so they are brought by the U.S. Attorney's Office, although the SEC may transmit evidence to the Department of Justice for prosecution. *See* 15 U.S.C. § 77t(b).

incentive to make examples out of those insiders that it is actually able to convict by seeking longer sentences.

In pursuing longer sentences, however, the SEC has turned its back on the rationale and assumptions underlying the basis of many securities fraud regulations it previously embraced, a fact not gone unnoticed by courts.[20] Overall, the SEC and courts have generally indicated a desire to enforce securities laws based on the premise that in the case of widely traded issuers, the market prices of shares are a reflection of all the public information regarding those companies.[21] Insider trading cases settled on plea bargains reflect this economic-reality.[22]

In insider trading sentencing though, the SEC has argued to the contrary. Specifically, the SEC has defined "gains" to include price changes based on information that the trader did not exclusively know about and thus could not have traded illegally on.[23] If other information of the same nature facilitates the stock's price in that direction, then if even though the trader is no longer acting on "inside" information, his punishment will continue to increase. This is inconsistent, however, with what makes traders like Gordon Gekko universally despised: the benefits derived from trading on *undisclosed* information. By measuring a trader's gains without reference to the date when the information at issue becomes public, sentences ignore the universally accepted relationship between prices and information: In an efficient market, the value of a given piece of information is immediately apparent upon its disclosure.[24]

[20] *See* United States v. Olis, 429 F.3d 540, 547 n.11 (5th Cir. 2005) ("The Government does not further the goals of sentencing uniformity or fairness when . . . the Government persistently adopts aggressive, inconsistent . . . theories of loss.").

[21] *See* Donald C. Langevoort, *The SEC as a Bureaucracy: Public Choice, Institutional Rhetoric, and the Process of Policy Formulation*, 47 WASH. & LEE L. REV. 527, 536 (1990).

[22] *See, e.g.*, Exhibit A to Plea Agreement at 1–2, United States v. Rieker, 284 F. Supp. 2d 511 (S.D. Tex. 2004) (No. 01-3913), *available at* http://news.findlaw.com/legalnews/lit/enron/.

[23] *See* Brief of Appellee at 18, United States v. Mooney, 425 F.3d 1093 (D. Minn. 2003) (No. 02-3388) ("[I]t is not unreasonable to view all of appellant's profits as 'ill gotten.' Absent an opportunity to trade inside information, there is no evidence in the record that appellant would ever have purchased the stock." (quoting SEC v. MacDonald, 699 F.2d 47, 57 (1st Cir. 1983)).

[24] *See infra* Part II.C (outlining the basic principles of the Efficient Capital Markets Theory).

The *Rajaratnam* case illustrates the crucial role of the sentencing component in insider trading cases. Given the government[25] and SEC[26] have such strong evidence, convictions of most, if not all, involved is likely.[27] For those not pleading guilty, because of the case's high profile, the real issue at stake will be the theory of calculating the traders' illegal gains advanced by the government, as it is alleged that the profits of those charged to date total close to $52 million.[28] If the SEC's civil complaint in connection with several of the alleged traders is any indication,[29] the calculation with the greatest effect will likely be pursued. The complaint treats "illicit profits" as the difference between the purchase price and the later sales price, with only a passing reference to the duration between the corrective disclosure and date of sale.[30] If this approach is accepted for all defendants, excessively long sentences may result.

This Note argues that, for purposes of criminal insider trading sentencing, courts should look to the date that the

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[25] United States v. Rajaratnam, No. 09-CR-1184, 2010 WL 3219340, at *2–4 (S.D.N.Y. Aug. 12, 2010).

[26] Amended Complaint at 15–44, SEC v. Galleon Mgmt., LP, 683 F. Supp. 2d 316 (S.D.N.Y. 2010) (No. 09 Civ. 8811).

[27] *See* David Glovin, Bob Van Voris & Joshua Gallu, *Hedge Fund Managers, Traders Charged in Galleon Trading Probe*, BLOOMBERG, Nov. 5, 2009, http://www.bloomberg.com/apps/news?pid=20601087&sid=a120BAm_KwvQ&pos=2 (noting that fourteen had already been charged, and five had pled guilty, to criminal insider trading); Susan Pulliam, *Insider-Trading Case: Five Cooperating Witnesses Propel Federal Probe*, WALL ST. J., Nov. 6, 2009, at A11 (identifying five witnesses cooperating with prosecutors in the case against Rajaratnam). The first conviction reached in connection with the case resulted in a twenty-seven month prision sentence to a former partner at the hedge fund New Castle LLC based on his $900,000 in illicit proceeds. *See* Chad Bray, *Galleon Figure Gets a 27-Month Prison Term*, WALL ST. J., May 22, 2010, at B3. However, Raj Rajaratnam has pled not guilty, likely going to trial in early 2011. Pulliam et al., *supra* note 13.

[28] Glovin, Voris & Gallu, *supra* note 27.

[29] *See* Complaint at 4–7, SEC v. Cutillo, No. 09 Civ. 9208 (S.D.N.Y. Nov. 5, 2009).

[30] *Id.* The complaint alleges that information regarding acquisitions or sales was first obtained by a lawyer representing one of the companies and then dispersed to up to five traders. *Id.* at 1, 3–4. For each transaction, the complaint specified the date on which the information was passed on to each individual in the chain, the date each party purchased their respective securities, and the date on which that transaction was publicly announced. *Id.* at 3–6. Regarding the corrective disclosure and subsequent sale of their holding, though, it merely states that "[t]hey sold their . . . holdings shortly after the public announcement of the proposed . . . acquisition." *Id.* at 4–6.

information was disclosed to determine the amount of the defendant's gains. This point in time simultaneously signifies the conclusion of the offense and the market's valuation of the information initially traded on. Part I will discuss the statutory prohibition on insider trading and its corresponding sentencing formula. Part II will focus on the current approaches adopted for measuring gains of insider trading in criminal sentencing, as well as other forms of securities fraud violations. Part III will identify the presence of the Efficient Capital Markets Theory in the general framework of insider trading and disclosure regulations. Finally, Part III will advance a solution to calculating gains by presuming that in an efficient market, a stock's price reflects the previously undisclosed information upon its disclosure and therefore, concludes the accumulation of gains for sentencing purposes.

I. INSIDER TRADING AND CRIMINAL SENTENCES

A. *Insider Trading*

Trading of public securities based on inside, or undisclosed, material information, is prohibited by section 10(b) of the Securities Exchange Act of 1934, which states that it is unlawful to "use or employ, in connection with the purchase or sale of any security . . . any manipulative or deceptive device or contrivance in contravention of such rules and regulations."[31] Though not specifically proscribed, insider trading is punished under the general anti-fraud provision of Rule 10b-5.[32] Rule 10b-5 provides for criminal penalties against anyone who willfully violates the provisions[33] and was adopted to close a perceived loophole in the anti-fraud provisions of section 17(a) of the Securities Act of

[31] 15 U.S.C. § 78j(b) (2006). Insider trading cases may also allege violations of regulations prohibiting trading on or tipping material, nonpublic information concerning tender offers, 17 C.F.R. § 240.14e-3(a) (2010), or mail and wire fraud, 18 U.S.C.A. § 1341 (West 2011).

[32] 17 C.F.R. § 240.10b-5.

> It shall be unlawful for any person, directly or indirectly . . . [t]o employ any device, scheme, or artifice to defraud, . . . or [t]o engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security.

Id.

[33] 15 U.S.C. § 78ff(a). Rule 10b-5 also allows private causes of action. *Id.* § 78t-1(a).

1933,[34] which applied only to the "offer or sale" of securities and not to their purchase.[35] Specifically, the rule was developed in response to a report regarding a corporate president who purchased shares after misrepresenting to the public that the corporation was doing poorly and shortly before the corporation announced that its profits had quadrupled.[36] In the wake of this case, when Rule 10b-5 was presented to the Commission, the only needed persuasion was: "Well, . . . we are against fraud, aren't we?"[37]

The initial requirement for the offense of insider trading is a defendant's classification as an "insider," which is based on a duty owed not to trade on the confidential information. A trader's duty under Rule 10b-5 must be premised on one of two theories: classical or misappropriation. Classical insider trading involves a corporate officer trading his own corporation's securities on the basis of material, nonpublic information.[38] The classic insider owes a fiduciary duty to shareholders of the company not to trade on nonpublic information and thus does not extend to those without a connection to shareholders.[39] This duty also applies to those who relay information, or "tippers," to another who then trades on it, with the added stipulation that "absent some personal gain [to the tipper], there has been no breach of duty to stockholders."[40] A duty based on the misappropriation theory applies to any person who takes "confidential information for securities trading purposes, in breach of a duty owed to the source of the information," not necessarily the corporation whose securities are traded.[41] Section 10(b), however, does not apply to all breaches of a fiduciary duty

[34] John F. Barry III, *The Economics of Outside Information and Rule 10b-5*, 129 U. PA. L. REV. 1307, 1366 (1981).

[35] 15 U.S.C. § 77q; Barry III, *supra* note 34 (quoting § 77q).

[36] Barry III, *supra* note 34.

[37] Milton V. Freeman, Speech at the Conference on Codification of the Fed. Sec. Laws (Nov. 18–19, 1966), *in* 22 BUS. LAW. 793, 922 (1967) (observation by Milton Freeman, one of Rule 10b-5's drafters, of Sumner Pike, Commission of the SEC, which was the lone comment by the SEC on the draft).

[38] *See* Chiarella v. United States, 445 U.S. 222, 227–30 (1980).

[39] *See id.* at 224, 231–33 (holding that a printer who had deduced inside information from documents handled at work without disclosing his knowledge did not violate section 10(b) and Rule 10b-5 because the use of the nonpublic information was not fraud since he had no duty to disclose it before trading).

[40] Dirks v. SEC, 463 U.S. 646, 662–63 (1983).

[41] *See* United States v. O'Hagan, 521 U.S. 642, 652 (1997).

but only to those that involve "manipulative or deceptive" conduct.[42] As both forms of liability are based on a "relationship of trust and confidence," insiders are essentially given a choice: "abstain or disclose."[43] The rationale for liability premised on a duty is: (1) the relationship gives that person access to information available "only for a corporate purpose"; and (2) based on "the inherent unfairness involved where a party takes advantage of such information knowing it is unavailable to those with whom he is dealing."[44]

In addition to insider and duty requirements, the statutory language requires that the fraud be "in connection with the purchase or sale of any securit[ies]"[45] or when "capitalizing on such information through securities transactions."[46] A decision to "hold" stock based on nonpublic information is not proscribed.[47] Additionally, the purchase or sale must be made "*on the basis of* material, non-public information," that is, the trader must be aware of the information when the transaction was made.[48] This does not necessarily require that the "use" of the information be proven but merely that the trader knowingly possessed the information at the time of the trade.[49] Finally, the information traded on must be material. "Material information," for purposes of Rule 10b-5, includes any fact that "in reasonable and objective contemplation might affect the value of the corporation's"[50] securities, although trading by insiders can supply "strong circumstantial evidence" of the materiality.[51] As Rule 10b-5 is

[42] 15 U.S.C. § 78j(b) (2006); Santa Fe Indus., Inc. v. Green, 430 U.S. 462, 471 (1977) (quoting section 10(b) of the Securities Exchange Act of 1934).

[43] *Chiarella*, 445 U.S. at 230, 246.

[44] *In re* Cady, Roberts & Co., 40 S.E.C. 907, 912 (1961).

[45] 15 U.S.C. § 78j.

[46] *O'Hagan*, 521 U.S. at 656.

[47] *See* Blue Chip Stamps v. Manor Drug Stores, 421 U.S. 723, 754–55 (1975); Condus v. Howard Sav. Bank, 781 F. Supp. 1052, 1056 (D.N.J. 1992).

[48] 17 C.F.R. § 240.10b5-1(b) (2010) (emphasis added) (internal quotation marks omitted). Defenses to Rule 10b5 include trading based on a prior written agreement to buy or sell the security or if as part of a plan. *See id.* § 240.105b-1(c)(1)(i)(A).

[49] *See* United States v. Teicher, 987 F.2d 112, 119 (2d Cir. 1993); Selective Disclosure and Insider Trading, Securities Act Release No. 7881, Exchange Act Release No. 43,154, Investment Company Act Release No. 24,599, 73 SEC Docket 3 (Aug. 15, 2000).

[50] SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 849 (2d Cir. 1968) (quoting List v. Fashion Park, Inc., 340 F.2d 457, 462 (2d Cir. 1965)) (internal quotation marks omitted).

[51] *Id.* at 852 (quoting SEC v. Tex. Gulf Sulphur Co., 258 F. Supp. 262, 284 (1966), *aff'd in part*, 401 F.2d 833 (2d Cir. 1968)) (internal quotation marks omitted).

based on the justifiable expectation that all "all investors should have equal access" to material information,[52] criminal liability attaches only when the information is nonpublic at the time of purchase or sale.[53]

Due to their shared required elements, criminal and civil insider trading cases can typically be brought on the same set of facts.[54] Criminal cases are often followed by civil actions, as double jeopardy in these circumstances does not apply.[55] As such, criminal convictions are pursued only when the evidence is sufficiently strong[56] for higher profile or extreme conduct cases.[57]

B. Federal Sentencing Guidelines and Insider Trading

Federal sentencing determinations for fraud-based securities violations, including insider trading, are governed by the Federal Sentencing Guidelines ("Guidelines").[58] Although their use is no longer mandatory,[59] the Guidelines remain heavily relied on by judges, with sentences rarely departing too drastically from them.[60] Judges are now implored to apply a reasonability standard, in that a sentence should be "sufficient, but not greater than necessary," to accomplish the goals of sentencing.[61]

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[52] *Id.* at 851.

[53] United States v. Libera, 989 F.2d 596, 601 (2d Cir. 1993) (holding that information is public when it is known by the relevant financial community).

[54] *See* BROMBERG & LOWENFELS, *supra* note 19. One difference is that a criminal defendant must have acted "knowingly," as opposed to "recklessly." 15 U.S.C. § 78ff(a) (2006). This heightened mental state merely requires a "realization on the defendant's part that he was doing a wrongful act . . . and that the knowingly wrongful act involved a *significant risk* of effecting the violation that occurred." United States v. Chiarella, 588 F.2d 1358, 1370 (2d Cir. 1978), *rev'd*, 445 U.S. 222 (1980) (emphasis added). Criminal actions are not limited by "buyer-seller" allegations, as the government merely needs to prove that the defendant engaged in a "manipulative or deceptive" practice. 15 U.S.C. § 78j(b); *see* United States v. Newman, 664 F.2d 12, 17 (2d Cir. 1981).

[55] *See* Hudson v. United States, 522 U.S. 93, 103 (1997).

[56] *See* United States v. Cassese, 428 F.3d 92, 101 (2d Cir. 2005).

[57] BROMBERG & LOWENFELS, *supra* note 19 ("Criminal prosecution is generally reserved for aggravated cases, chosen in prosecutorial discretion, based on factors like severity of violation, number of victims, size of losses, and problems of proof.").

[58] U.S. SENTENCING GUIDELINES MANUAL § 2B1.1 (2010).

[59] *See* United States v. Booker, 543 U.S. 220, 226 (2005).

[60] *See* Press Release, Department of Justice, Fact Sheet: The Impact of *United States v. Booker* on Federal Sentencing (Mar. 15, 2006), *available at* http://www.usdoj.gov/opa/documents/United_States_v_Booker_Fact_Sheet.pdf (indicating that the number of sentences falling within the Guidelines fell a mere 2.8% between 2002 and 2006).

[61] 18 U.S.C.A. § 3553(a) (West 2011).

Pursuant to the Guidelines, criminal sentence generally are based on a combination of: (1) a base level sentence; (2) an increase based on the extent of losses or gains caused as a result of the offense; and (3) other offense and offender characteristics, which may increase or decrease the total sentence.[62] The calculated base level offense is then translated into the appropriate Federal Sentencing Table to produce a range of months of incarceration based on the defendant's criminal history.[63] For insider trading, the base level sentence is eight.[64] But the amount of computed gains has the potential to significantly add to that figure.[65]

The central issue at the sentencing phase for insider trading is determining the "gain resulting from the offense."[66] The level of the total offense rises based on the amount of calculated gains, ranging from an increase of two for $5,000 of gains, to an increase of thirty for more than $400 million of gains.[67] "Gains" for insider trading constitutes the value of the defendant's gains and not victim's losses "[b]ecause the victims and their losses are difficult if not impossible to identify."[68] The background to the Guidelines defines a "gain" as "the total increase in value realized through trading in securities by the defendant and persons acting in concert with the defendant or to whom the defendant [has] provide[d] inside information."[69] For all offenses, relevant conduct for sentencing is based only on those "acts and omissions committed . . . that occurred during the commission of the offense."[70]

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[62] U.S. SENTENCING GUIDELINES MANUAL § 2B1.1.

[63] *Id.* § 5A.

[64] *Id.* § 2B1.4.

[65] For example, assuming all other things equal and a first time criminal, the base level from a gain of $5,000 results in a sentencing range of zero to six months, while a gain of $400 million would lead to a sentencing range of 235 to 293 months. *See id.* § 2B1.1(b)(1)(A), (b)(1)(P); *id.* § 5A.

[66] *Id.* § 2B1.4; *see also* United States v. Nacchio, 573 F.3d 1062, 1067 (10th Cir.), *cert. denied*, 130 S. Ct. 54 (2009).

[67] U.S. SENTENCING GUIDELINES MANUAL § 2B1.4.

[68] *Id.* § 2B1.4 cmt. background.

[69] *Id.*

[70] *Id.* § 1B1.3(a)(1).

II. MEASURING GAINS AND LOSSES IN SECURITIES FRAUD

A. *The Current Split of How To Measure Criminal Insider Trading Gains*

The controversy over the appropriate calculation of insider trading gains for criminal sentencing purposes revolves around differing views as to when the offense ceases and in part, around the extent to which it should borrow from calculations in other securities fraud cases. Specifically, the distinction between the two views is whether a trader's "gain resulting from the offense" consists of the total profits that a trader earned or the specific economic benefit the trader derived from the nonpublic information.

The Court of Appeals first addressed the issue in *United States v. Mooney*.[71] The facts of the case can be illustrated by this hypothetical: Trader M worked as an underwriter for a major health-care company, U-Care.[72] In May, M was exposed to confidential information concerning U-Care's unannounced acquisition of a target company.[73] On June 1, M purchased 20,000 shares of U-Care for $10 per share.[74] On July 1, the New York Times first mentioned the advanced stage of negotiations between U-Care and the target, leading to a sharp increase in trading volume and an immediate increase in price to $12.[75] On July 15, U-Care publicly announced its agreement to acquire the target.[76] On August 1, M sold 10,000 shares of U-Care at $15 per share.[77] On November 1, M sold the remaining 10,000 shares for $20 each.[78]

M was found guilty of various violations of mail and securities fraud, including four counts of insider trading under Rule 10b-5, and M was sentenced based on his gains, held to be the total profit earned through selling all his shares or $150,000.[79] On appeal, M contended that the market would have

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[71] 425 F.3d 1093 (8th Cir. 2005) (en banc).
[72] *See id.* at 1095.
[73] *See id.* at 1096.
[74] *See id.* at 1095–96.
[75] *See id.* at 1096.
[76] *See id.* at 1097.
[77] *See id.*
[78] *See id.*
[79] *See id.* at 1095, 1099–100. For example, the total gains from the shares sold on November 1, would be calculated by subtracting the purchase price ($10) from the

reasonably absorbed the information concerning the acquisition a week after the initial negotiation article and two days after the confirmed agreement.[80] M argued that the profits he received as a result of the appreciation of U-Care between when the market would have "absorbed" the information regarding the sale—approximately August 1—and when he sold his shares in November, or $5 per share, were irrelevant.[81]

A divided Eighth Circuit rejected the defendant's "market absorption" approach. Instead, it upheld the district court's sentencing by reading "gain resulting from the offense" pursuant to the Guidelines Commentary that defined it as "the total increase in value realized through trading in securities by the defendant."[82] The court held the word "realized" to mean that a defendant's subsequent sales price must be used for the calculation of gains, even if the sale occurs well after the disclosure date, as was the case there.[83] The court refused to employ principles of "loss causation" from civil cases[84] by concluding it was "the inside trader who chooses the timing of his transactions—his purchases as well as his sales."[85] The court also found comfort in "a clear and coherent brightline [sic]" for sentences by not engaging in "extensive factfinding [sic]" to "determine when the market ha[d] absorbed nonpublic information."[86]

A far different approach was recommended by the dissent. Judge Bright, writing for the dissent, felt that the "gain resulting from the deception stops when the deception stops, though there may be later gain (or loss) as the stock market gyrates along, unmolested by any deception."[87] Judge Bright asserted that the deception stops when the "market adjusts to this information,"

sales price ($20), multiplied by the number of shares (10,000), to reach the total ($100,000). Under the facts of the case, this resulted in a sentencing range of 37 to 46 months. *See id.* at 1098.

[80] *See id.* at 1098–99.

[81] *See id.* Under the facts of the case, this resulted in a sentencing range of 24 to 30 months. *Id.*

[82] *Id.* at 1099–110 (quoting U.S. SENTENCING GUIDELINES MANUAL § 2B1.4 cmt. background (2010)).

[83] *Id.* at 1100.

[84] *See infra* notes 119–21 and accompanying text.

[85] *Mooney*, 425 F.3d at 1099 n.5.

[86] *Id.* at 1101.

[87] *Id.* at 1106 (Bright, J., dissenting).

and thus later stock price fluctuations are legitimate.[88] Since the "ups and downs of the stock market are not causative of loss to the deceived parties,"[89] a sentence should not include "*all* the defendant's stock gains . . . but only the stock gains 'resulting from the offense.' "[90] By basing the "sentence on the throw of the dice—the ups and downs of the stock market,"[91] this approach resulted in unequal sentences for equal crimes.[92]

The market absorption approach was later endorsed by the Tenth Circuit in *United States v. Nacchio*.[93] The facts of the case can be illustrated by this hypothetical: Trader N was CEO of Q-Com, a publicly traded communications company, and was partially compensated through Q-Com stock options.[94] N knew that Q-Com was relying heavily on a type of nonrecurring revenue source to meet its guidance numbers and would likely miss its annual projections, information that was not publicly known.[95] In March, N exercised one million options, each with an exercise price of $5, for a cost of $5 million and then sold the shares at $10 per share for total proceeds of $10 million, less taxes and commissions of $2 million.[96] Over the following months, the price of Q-Com dropped to $3.[97] Despite prior disclosures that referenced the issue, Q-Com did not disclose the magnitude of their revenue shortfall until August, and in September, it issued a press release lowering its revenue targets, at which point the stock fell to $2.[98]

[88] *Id.*

[89] *Id.* at 1108.

[90] *Id.* at 1105 n.9.

[91] *Id.* at 1108 n.12.

[92] *See id.* at 1108. To illustrate his point, Judge Bright presented the "Larry, Moe, and Curly" hypothetical, where three traders purchase the same shares, based on the same information, at the same time, but sell at various points after disclosure of the information—one immediately when the market absorbed the positive information, one three months later, and one six months later. *Id.* at 1107. But each sold at different prices due to subsequent market fluctuations, and three different sentences resulted. *See id.*

[93] 573 F.3d 1062 (10th Cir.), *cert. denied*, 130 S. Ct. 54 (2009).

[94] *Id.* at 1065.

[95] *Id.* at 1064.

[96] *See id.* at 1065.

[97] *See* Appellant's Reply Brief at 10, United States v. Nacchio, 573 F.3d 1062 (10th Cir. 2007) (No. 07-1311) (contending that the entire telecommunications sector declined during that period due to projected "adverse economic and demand trends").

[98] *See Nacchio*, 573 F.3d at 1066.

At trial, employing the "net profit" approach from *Mooney*, the government argued that N's gain was the total amount received from stock sales, less the exercise price, or $9 million.[99] N argued that the maximum portion of his gains attributable to inside information was only $1 million or the effect the information, measured by the August and September disclosures, had on the price of the stock.[100] The district court found N guilty on nineteen counts of insider trading and sentenced him based on a gain calculation of $7 million or the total proceeds less costs.[101]

On appeal, the district court's calculation was rejected as inconsistent with the offense of insider trading.[102] According to the Tenth Circuit, N's offense was not the "sale of the shares itself, but in the *deception* intertwined with the sales due to his possession of insider knowledge."[103] Therefore, "any gain associated with lawful trading," or trading purely on the basis of publicly available information, should not be incorporated into a prison sentence.[104] As such, "gain[s] attributable to legitimate price appreciation and the underlying inherent value of the . . . shares" were not to be included in sentencing.[105] Since N sold the shares based on his inside knowledge of negative information concerning the company, he sold at a higher price than he would have had it been disclosed.[106] It was this "artificially high value," and not the stock's total value, that was illicit and "should be reflected in the gain calculation."[107]

On remand, the district court was advised to apply a civil disgorgement theory to establish a "cutoff point for assessing the gain of the illegal conduct" as "the point when the information is disclosed and absorbed by the market."[108] Since the price of Q-Com decreased prior to the disclosure relating to the revenue

[99] *See id.* at 1068. Under the facts of the case, this approach resulted in a sentencing range of 70 to 87 months. *Id.*

[100] *See id.* Under the facts of the case, this resulted in a sentencing range of 41 to 51 months. *Id.*

[101] *See id.* at 1066, 1068–69. Under the facts of the case, this approach resulted in a sentencing range of 63 to 78 months, with an actual sentence imposed of 72 months. *Id.* at 1069.

[102] *See id.* at 1071–72.

[103] *Id.* at 1072.

[104] *Id.*

[105] *Id.* at 1075.

[106] *See id.* at 1076.

[107] *Id.*

[108] *Id.* at 1082.

shortfall, this approach "would better capture the increase in value received by the defendant due to *unlawful* trading in securities."[109] To accurately measure only "ill-gotten gains,"[110] "factors unrelated to the defendant's criminally culpable conduct,"[111] such as "unrelated negative industry developments and their impact on the stock price," were to be excluded.[112] The court acknowledged that while it may not be entirely possible to exclude chance market forces from an insider's illegal gains, this approach narrows "the range of possible extraneous economic factors that might influence the gain amount" and therefore, "the range of possible sentencing disparities."[113]

B. Causation and Calculations in Other Settings

The views over gain calculations in criminal insider trading sentencing are relatively contrasting, but calculating the impact of other forms of securities fraud exhibits a more unified approach. Whether calculating other securities fraud crimes or civil insider trading, a pervasive goal of causation emerges that reflects an appreciation of how markets operate.

Awards in the civil context under Rule 10b-5 are supported by a combination of theories of restitution, loss of expectancy, and damages.[114] Damages, or the economic losses attributable to a misstatement or omission, are typically based on the "out-of-pocket" impact to defendants or the "difference between the purchase price and the value of the stock at the date of purchase."[115] Courts consider this figure to best measure the damages "proximately caused by the defendants' deceit"[116]

[109] *Id.* at 1085.
[110] *Id.* at 1084 n.20.
[111] *Id.* at 1080–81.
[112] *Id.* at 1085.
[113] *Id.* at 1086 n.23.
[114] *See* Robert B. Thompson, *The Measure of Recovery Under Rule 10b-5: A Restitution Alternative to Tort Damages*, 37 VAND. L. REV. 349, 353–54 (1984).
[115] Green v. Occidental Petroleum Corp., 541 F.2d 1335, 1344 (9th Cir. 1976). For a discussion of the primary methodologies for calculating out-of-pocket losses, see *infra* notes 202–08 and accompanying text.
[116] Huddleston v. Herman & MacClean, 640 F.2d 534, 555 (5th Cir. 1981), *overruled on other grounds by* Lormand v. US Unwired, Inc., 565 F.3d 228 (5th Cir. 2009).

because it is based on the reasoning that the higher share price paid by victims due to the fraudulent misstatement constitutes their losses.[117]

In evaluating the true stock price, in the case of publicly traded markets, other information aside from that at issue may affect a stock's price. The connection between price changes and fraudulent conduct is embodied in the requirement of loss causation.[118] Plaintiffs must establish that the fraud caused the demonstrable loss because, given the "tangle of factors affecting price," an inflated stock price is not presumptively caused by the fraud, even if the subsequent disclosure results in a lower market price.[119] This is because a "lower price may reflect, not the earlier misrepresentation, but changed economic circumstances, changed investor expectations, new industry-specific or firm-specific facts, conditions, or other events, which taken separately or together account for some or all of that lower price."[120] As a result, a plaintiff must prove that the market, as reflected by the share price, and not just the individual was deceived to recover damages.[121]

In civil insider trading cases, disgorgement of profits is the proper measure of awards.[122] Disgorgement defines ill-gotten profits as those gained during the time the fraud was in general circulation among the investing public,[123] though they "need only be a reasonable approximation of profits causally connected to the violation."[124] Damages are generally limited to "only those accretions occurring up to a reasonable time after [the harmed investor] discovered the truth."[125] The rationale is that, on discovery of the truth, an investor "can protect against further

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[117] *See Green*, 541 F.2d at 1344.

[118] *See* Donald C. Langevoort, *Theories, Assumptions, and Securities Regulation: Market Efficiency Revisited*, 140 U. PA. L. REV. 851, 904 (1992).

[119] Dura Pharms., Inc. v. Broudo, 544 U.S. 336, 343 (2005).

[120] *Id.*

[121] *See* Langevoort, *supra* note 118.

[122] *See* SEC v. Happ, 392 F.3d 12, 31 (1st Cir. 2004).

[123] SEC v. MacDonald, 699 F.2d 47, 54 (1st Cir. 1983) (en banc); *see also* SEC v. Patel, 61 F.3d 137, 139 (2d Cir. 1995).

[124] SEC v. First City Fin. Corp., 890 F.2d 1215, 1231 (D.C. Cir. 1989).

[125] *MacDonald*, 699 F.2d at 53.

damage by replacing the securities and should not be allowed to profit from a further appreciation, while being protected against depreciation by his right to recover."[126]

In criminal securities fraud cases not involving insider trading, sentences are based on victims' pecuniary losses.[127] Despite various calculations available to measure this,[128] all strive to determine the extent to which a defendant's fraud, as distinguished from market or other forces, caused shareholders' losses.[129] As in civil cases, out-of-pocket damages are the preferred method for measuring losses.[130] To determine victims' losses, first, the "remaining" value of the securities subjected to the fraud is deducted from the purchase price.[131] Second, no loss can be attributed to the defendant "unless and until the truth is subsequently revealed and the price of the stock accordingly declines."[132] Third, "the government must prove that the fraud inflated the price . . . *and* that the investors 'lost' " as a result.[133] If the price declined—at least in part—for reasons other than the fraud, not all of the decline can be attributed to the defendant.[134] Price movements prior and subsequent to the corrective disclosure shed light on determining the requisite causation.[135]

[126] *Id.* (quoting Gerstle v. Gamble-Skogmo, Inc., 478 F.2d 1281, 1306 n.27 (2d Cir. 1973)).

[127] *See* U.S. SENTENCING GUIDELINES MANUAL § 2B1.1 cmt. n.3(A)(iii) (2010).

[128] *See* Kevin P. McCormick, Comment, *Untangling the Capricious Effects of Market Loss in Securities Fraud Sentencing*, 82 TUL. L. REV. 1145, 1164–71 (2008) (outlining the differences between the simple rescissory, modified rescissory, market capitalization, and out-of-pocket methods).

[129] *See* United States v. Rutkoske, 506 F.3d 170, 180 (2d Cir. 2007) ("The District Court's basic failure at least to approximate the amount of the loss caused by the fraud without even considering other factors relevant to a decline in . . . share price requires a remand to redetermine the amount of the loss . . . ."); United States v. Ebbers, 458 F.3d 110, 128 (2d Cir. 2006) ("Losses from causes other than the fraud must be excluded from the loss calculation.").

[130] *See* United States v. Grabske, 260 F. Supp. 2d 866, 871–72 (N.D. Cal. 2002). Rescissory damages are more appropriate where the market value is too difficult to ascertain. *See id.* at 873; U.S. SENTENCING GUIDELINES MANUAL § 2B1.1 cmt. n.3(C)(i).

[131] *See* United States v. Leonard, 529 F.3d 83, 93 (2d Cir. 2008).

[132] United States v. Olis, 429 F.3d 540, 546 (5th Cir. 2005).

[133] *Grabske*, 260 F. Supp. 2d at 870 (holding that it is not reasonable to assume a stock's inflated price remains following a negative announcement).

[134] *Olis*, 429 F.3d at 546.

[135] *See* United States v. Zolp, 479 F.3d 715, 720–22 (9th Cir. 2007) (holding that where the government alleged the promotion of a "worthless" company, subsequent significant increases in the stock price after the disclosure demonstrated the contrary); *Olis*, 429 F.3d at 548 (holding that when most of a price drop occurred

Thus, sentences in these criminal securities cases are a function of the extent of the defendant's culpability up until the stock price accurately reflects the available information.

C. The Efficient Capital Markets Theory

The court in *Nacchio* advocated the need to base criminal sentencing of insider trading on a "thorough analys[is] grounded in economic reality."[136] This Note contends that the Efficient Capital Markets Theory ("ECMT") is such an analysis, as it provides an explanation of the relationship between the price of a publicly traded security and the market. In essence, the ECMT states that "in an efficient market prices 'fully reflect' available information" regarding a company.[137] This proposition was originally developed to discount claims that profits in the market could be achieved by reacting the quickest to information, since all information publicly available is impounded in a stock's price.[138] For example, if an investor read a pharmaceutical company's press release immediately upon release that notes FDA approval for the company's drug that cures cancer and then immediately called a broker to buy those shares to capitalize on the news, it would have already been too late. The ECMT therefore relies on the assumption that what is "actually observed" in the market with respect to the price and time of securities is synonymous with the "result if everyone knew the information."[139]

To reach this conclusion, the ECMT focuses on the fundamental relationship between the availability of information and stock prices. "Corporate finance theory holds that the stock price of a company reflects the market's estimation of the company's future cash flows, discounted back to the present at

before the corrective disclosure, attributing the entire stock price decline to the defendant overstated his personal criminal culpability).

[136] *See* United States v. Nacchio, 573 F.3d 1062, 1075 (10th Cir.), *cert. denied*, 130 S. Ct. 54 (2009).

[137] Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. FIN. 383, 384 (1970).

[138] *See* EUGENE F. FAMA, FOUNDATIONS OF FINANCE: PORTFOLIO DECISIONS AND SECURITIES PRICES 136 (1976) (finding that a market is efficient with respect to a given information set if, at a specific point in time, the information that the market uses to determine security prices includes all the information available).

[139] Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 VA. L. REV. 549, 552, 558 (1984).

the company's cost of capital."[140] In other words, a stock's intrinsic value is the general consensus of the company's future success, with "present or past . . . performance [used] as an indicator of . . . future cash flows."[141] To reach this consensus, individual market participants form opinions on various pieces information, both from a company specific and general market condition basis, to determine an individual security's valuation at any given point in time. According to the ECMT, "on the average, competition will cause the full effects of new information on intrinsic values to be reflected 'instantaneously' in actual prices."[142]

The ECMT operates through one of three primary market responses to information that represent the extent of a market's efficiency based on the costs and availability of the information at issue: weak, strong, and semi-strong markets.[143] Weak markets are those in which the history of past prices does not lead to predictable valuations, minimizing exploitable trading opportunities.[144] Strong markets are those in which individuals "have monopolistic access to . . . information relevant [to] price."[145] The most realistic is the semi-strong market,[146] which assumes that all available public information is fully reflected in a security's market price.[147] This price, which represents the stock's intrinsic value, is a product of competing experts attempting to interpret and process the same information for

[140] Jay W. Eisenhofer, Geoffrey C. Jarvis & James R. Banko, *Securities Fraud, Stock Price Valuation, and Loss Causation: Toward a Corporate Finance-Based Theory of Loss Causation*, 59 BUS. LAW. 1419, 1421 (2004).

[141] *Id.* at 1442 (emphasis omitted).

[142] Eugene F. Fama, *Random Walks in Stock Market Prices*, 21 FIN. ANALYSTS J. 55, 56 (1965), *reprinted in* RICHARD A. POSNER & KENNETH E. SCOTT, ECONOMICS OF CORPORATION LAW AND SECURITIES REGULATION 156, 158 (1980) (emphasis omitted).

[143] Fama, *supra* note 137, at 414.

[144] *See* Roger J. Dennis, *Materiality and the Efficient Capital Market Model: A Recipe for the Total Mix*, 25 WM. & MARY L. REV. 373, 375–76 (1984); Fama, *supra* note 137, at 383.

[145] Fama, *supra* note 137, at 383.

[146] *See, e.g.*, Jonathan R. Macey & Geoffrey P. Miller, *Good Finance, Bad Economics: An Analysis of the Fraud-on-the-Market Theory*, 42 STAN. L. REV. 1059, 1082–83 (1990) (noting that recent economic research accepts the assumptions of the semi-strong form, citing studies measuring the effects of stock prices from stock splits, "large block trades . . . by corporate insiders or market professionals," takeover attempts, and Federal Reserve policy changes).

[147] Fama, *supra* note 137, at 383.

their own gain through purchasing or selling shares.[148] Both "soft information," such as "forecasts and estimates," and "hard information," or "known facts," are relevant in this respect.[149]

The achievement of an efficient market requires two market mechanisms that are affected by insider trading: incorporating information into prices and providing liquidity in trading.[150] Incorporating information into a price requires producing information, both firm specific and of the general market, verifying the provided information, and processing and "analyzing the information."[151] Liquidity in trading is realized through sufficient competing participants all seeking to achieve a predetermined risk level.[152] Today's competitive market, dominated by analyst coverage and professional traders, epitomize the "semi-strong" market by effecting a "rapid price equilibration" because of the presence of "only a minority of knowledgeable traders who control a critical volume of trading activity."[153] By taking information accessible to only a few traders and rapidly assimilating it into the price, these participants transform a limited disclosure into one that can safely be considered "public."[154] Efficient markets therefore require important current information to be available to all participants at low transaction costs and large numbers of rational, profit maximizers actively competing to predict future market values of individual securities.[155]

III. Applying the Market Efficiency Theory To Measure Insider Gains

This Note contends that the ECMT should be used for calculating individual gains in the criminal sentencing of insider trading. The utilization of the ECMT in other capacities reveals the confidence the SEC and courts have placed in it to explain

[148] *See* Dennis, *supra* note 144, at 379.

[149] Gilson & Kraakman, *supra* note 139, at 561–62.

[150] Zohar Goshen & Gideon Parchomovsky, *The Essential Role of Securities Regulation*, 55 Duke L.J. 711, 720 (2006).

[151] *Id.* at 721.

[152] *See id.* at 722.

[153] Gilson & Kraakman, *supra* note 139, at 569.

[154] *Id.*

[155] *See* Richard A. Brealey, Stewart C. Myers & Franklin Allen, Principles of Corporate Finance 337 (8th ed. 2006); Fama, *supra* note 137, at 388.

and regulate markets. In the context of the precise harms insider trading causes, cutting off liability immediately on a corrective disclosure provides the most rational solution toward a sentence consistent with criminal sentencing and economic reality. The effect of this approach is that, in an efficient market, an insider's gain is to be measured from the next closing price of the stock following disclosure of the previously confidential information.

A. Legal Recognition of the Efficient Capital Market Theory

The ECMT has not only heavily influenced economic theory but also the legal and regulatory approaches towards prosecuting and counteracting securities fraud by providing a structural framework of how markets work.[156] Generally, because of information's crucial role in properly valuing securities, the ECMT has been used to preclude companies and traders from engaging in or concealing certain activities and information.[157] As insider trading is one of the restrictions supported by the ECMT and presents the same issues common to other ECMT-based regulations, the extent of any punishment must reflect the assumptions employed in these contexts.

1. The SEC's Efficient Disclosure System

Insider trading is, at its core, a crime based on access to information. Since its prohibition is based on the perceived social value of providing accurate and full information to the public,[158] the rationale for rules governing disclosures generally should correspond to the sentencing of acts that interfere with this value. In its disclosure policies, the SEC has relied on the efficiency of markets to disseminate information and translate it into accurate valuations of publicly traded securities through a complex disclosure system.[159] In this sense, the SEC agreed "that economists proved the efficient market hypothesis a decade ago

[156] *See generally* Jeffrey N. Gordon & Lewis A. Kornhauser, *Efficient Markets, Costly Information, and Securities Research*, 60 N.Y.U. L. REV. 761 (1985).

[157] *See* Gilson & Kraakman, *supra* note 139, at 552.

[158] 15 U.S.C. § 78b (2006).

[159] *See, e.g.*, 17 C.F.R. § 240.13a-1 (2010) (annual report requirements); *id.* § 240.13a-13 (quarterly report requirements); *id.* § 240.15d-11 (current reports requirements).

and moved on to other topics entirely, so that all that is left is for the law to come into conformity with this intellectual orthodoxy."[160]

The SEC regulates markets through disclosure rules focused on compelling full and prompt information to individuals to create a sense of a fair playing field for investors.[161] The most influential of these rules is Regulation FD, promulgated to directly counteract insider trading on the basis of nonpublic or selective disclosure.[162] Regulation FD prohibits an issuer from disclosing "material[,] nonpublic information" to an individual without a near simultaneous disclosure of the event to the public.[163] It complements the prosecution of insider trading under Rule 10b-5, as required disclosures under Regulation FD are not premised on a "breach of a duty of trust or confidence,"[164] but when it is "reasonably foreseeable that the . . . securities [would be traded] on the basis of the information."[165] Therefore, so long as an issuer refrains from disclosing the information to anyone on the outside, no infraction has occurred.

The SEC has also realized that while the courts severely punish insider trading under anti-fraud provisions, selective disclosure can have just as severe and harmful an economic impact as nondisclosure.[166] The disclosure requirements in this regard facilitate efficiency by reducing duplicative costs of searching for information by market participants.[167] The SEC also requires disclosure of the trading activity by insiders[168] and has identified situations when insiders are never allowed to trade, even if they are not in possession of inside information.[169]

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[160] Langevoort, *supra* note 21, at 539.

[161] *See* H.R. REP. NO. 73-1383, at 11 (1934) ("There cannot be honest markets without honest publicity. Manipulation and dishonest practices of the market place thrive upon mystery and secrecy.").

[162] *See* 17 C.F.R. § 243.100(a)–(b)(1).

[163] *Id.* § 243.100(a).

[164] *Id.* § 240.10b5-1(a).

[165] *Id.* § 243.100(b)(1)(iv).

[166] *See* Selective Disclosure and Insider Trading, Securities Act Release No. 7881, Exchange Act Release No. 43,154, Investment Company Act Release No. 24,599, 73 SEC Docket 3 (Aug. 15, 2000).

[167] Goshen & Parchomovsky, *supra* note 150, at 738.

[168] *See* 15 U.S.C. § 78p(a)(1)–(2) (2006) (requiring all officers, directors, and "beneficial owner[s] of more than 10 percent of any" class of registered equity class to file the appropriate notice with the SEC within ten days of acquiring a position).

[169] *See, e.g.*, *id.* § 78p(b) (short swing profits); *id.* § 78p(c) (short sales).

Thus, market efficiency is achieved here by ensuring that the market trades on the same information but without mandating disclosure in all cases.

The ECMT's view of information also explains the SEC's perception of the impact of disclosures, particularly in rules that do not aim to provide all market participants with information, but rather, to ensure that the *right* participants are informed. The SEC's use of integration, or incorporation by reference, supports this view by permitting a publicly filed document merely to refer to information previously disclosed in certain cases instead of repeating the information.[170] Such rules were explicitly "created 'in reliance on the efficient market theory,' "[171] since the integrated information is regularly being evaluated by analysts, yet available to the press and public for free.[172] As an efficient market will ensure that the disclosure "is adequately reflected in the price of a [company's] outstanding securities," the need for reiterating it has no discernible benefit.[173] Certain information may also be disseminated through alternative forms to Exchange reports, such as press releases and conference calls, provided that they "achieve the goal of effecting broad, non-exclusionary distribution of information to the public."[174] Overall, the SEC expects that once material information has been accurately disseminated into the market in some capacity, the market can be relied upon to process it into the security's price.

2. Judicial Adoption of the ECMT

Courts have embraced the ECMT to explain how public securities markets operate. Initially, the assumptions underlying the ECMT justified prohibiting insider trading, as "the fundamental purpose of the [1934 Securities] Act [w]as

[170] *See* 17 C.F.R. § 239.13(b)(3) (Form S-3).

[171] Langevoort, *supra* note 118, at 876 (quoting Adoption of Integrated Disclosure System, Securities Act Release No. 6383, Exchange Act Release No. 18, 524, Investment Company Act Release No. 12,264, 47 Fed. Reg. 11,380 (Mar. 3, 1982)).

[172] *See* Proposed Comprehensive Revision to System for Registration of Securities Offerings, Securities Act Release No. 6235, Investment Company Act Release No. 11,327, 20 SEC Docket 1339 (Sept. 2, 1980).

[173] *Id.*

[174] Selective Disclosure and Insider Trading, Securities Act Release No. 7881, Exchange Act. Release No. 43,154, Investment Company Act Release No. 24,599, 73 SEC Docket 3 (Aug. 15, 2000); *see also* Langevoort, *supra* note 118, at 877.

implementing a philosophy of full disclosure."[175] Legislators believed that the "free and open market" of information required "the exercise of an enlightened judgment as to what constitutes a fair price," but "[i]nsofar as the judgment of either is warped by false, inaccurate, or incomplete information regarding the corporation, the market price fails to reflect the normal operation of the law of supply and demand."[176] The ECMT's influence on punishing security fraud has since developed in three areas of securities fraud case law: (1) determining what information the public is entitled to know, or materiality;[177] (2) presuming that the nondisclosure of information impacts stock prices to prove reliance;[178] and (3) quantifying the value of the undisclosed information based on the price movements following a corrective disclosure to establish damages.[179]

By understanding that prices reflect information through market reactions upon their public disclosure,[180] fraudulent nondisclosure is contingent on the materiality of the information at issue. Material information is that which would be considered by a reasonable investor in making an investment decision, in that it creates "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."[181] The "total mix" includes even uncertain events, and therefore, the price of a security reflects disclosure of such information as well.[182] The recognition that uncertain events also impact price—that is, the ECMT's semi-strong view of markets—

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[175] Basic Inc. v. Levinson, 485 U.S. 224, 230 (1988) (quoting Sante Fe Indus., Inc. v. Green, 430 U.S. 462, 477 (1977)) (internal quotation marks omitted).

[176] S. REP. NO. 73-1455, at 68 (1934).

[177] *See, e.g.*, TSC Indus., Inc. v. Northway, Inc., 426 U.S. 438, 450 (1976).

[178] *See, e.g.*, *In re* Bally Mfg. Sec. Corp. Litig., 141 F.R.D. 262, 269–70 (N.D. Ill. 1992).

[179] *See, e.g.*, *In re* Royal Dutch/Shell Transp. Sec. Litig., 404 F. Supp. 2d 605, 608 (D.N.J. 2005).

[180] *See, e.g.*, Bowe v. Polymedia Corp. (*In re* Polymedia Sec. Litig.), 432 F.3d 1, 10 (1st Cir. 2005) ("[A]n efficient market is one in which market price fully reflects all publicly available information.").

[181] *TSC Indus., Inc.*, 426 U.S. at 449.

[182] *See* SEC v. Geon Indus., Inc., 531 F.2d 39, 47–48 (2d Cir. 1976); SEC v. Tex. Gulf Co., 401 F.2d 833, 849 (2d Cir. 1968) (noting that a stock's price "will depend at any given time upon a balancing of both the indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity").

was embraced in *Wielgos v. Commonwealth Edison Co.*,[183] where soft information, such as predictions, was material, since prices are based on "beliefs about how firms will do tomorrow, not because of how they did yesterday."[184] Even if the information is false, it nonetheless aids the pricing of stocks because of investors' interest in seeking the truth.[185]

As explained by the ECMT's market price signaling mechanism, materiality determinations dictate whether information is in fact nonpublic.[186] Information becomes "public" when "it has been internalized by 'the market'—i.e., [when] the security's price reflects that information."[187] Once the information is reflected in the price, it can no longer be misused, because the insider is now on equal footing with the public.[188] The public, therefore, may trade with an insider, even absent personal knowledge of the previously undisclosed information, if that information finds it way into the marketplace of ideas.[189] Traders in possession of accurate information may serve to accurately price a stock even in the face of contradictory statements by the issuer.[190] Once public, plaintiffs are in effect charged with having constructive knowledge of it.[191] Therefore,

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[183] 892 F.2d 509 (7th Cir. 1989).

[184] *Id.* at 514 (discussing the process by which investors collectively evaluate information in the context of the safe-harbor provisions for forward looking statements under Rule 175(b)).

[185] *See id.*

[186] *See* Dennis, *supra* note 144, at 414–15.

[187] RALPH C. FERRARA, DONNA M. NAGY & HERBERT THOMAS, FERRARA ON INSIDER TRADING AND THE WALL 2–9 (2010).

[188] *Id.* (quoting United States v. Libera, 989 F.2d 596, 601 (2d Cir. 1993)).

[189] *See* Dennis, *supra* note 144, at 419 ("Each market participant need not have access to all information. Rather, the court should focus on whether enough traders had the information so that the price signalling mechanism revealed the information.").

[190] *See* SEC v. Bausch & Lomb, Inc., 565 F.2d 8, 14–18 (2d Cir. 1977) (finding that where analysts disseminated their views of what the correct information regarding a company was, false statements by the company were immaterial because they were "either irrelevant or already publicly known"); Dennis, *supra* note 144, at 414 ("[T]he nearly simultaneous release of the information to several securities analysts meant that, under the efficient market theory, any effect of the disclosure on the market was rapidly assimilated . . . to the general public.").

[191] *See* Teamsters Local 282 Pension Trust Fund v. Angelos, 762 F.2d 522, 530 (7th Cir. 1985) ("The investor cannot ask a court to focus on the lie and ignore the remaining pieces of information already available to him (or, in the case of a publicly traded security, already available to others and reflected in the price of the security).").

liability for insider trading should be foreclosed once the information is already public—that is, reflected in the price of the stock.[192]

The conclusion that stock prices can be trusted to reflect all public, material information coalesced in the fraud-on-the-market theory. Applicable in recovery of losses lawsuits under Rule 10b-5, the theory permits a "person who traded a corporation's shares on a securities exchange after the issuance of a materially misleading statement by the corporation [to] invoke a rebuttable presumption [of reliance] on the integrity of the price set by the market."[193] Reliance is presumed on a showing: (1) of a material, public misrepresentation; (2) that the "shares were traded in an efficient market"; and (3) that the plaintiffs traded shares between the misrepresentation and the corrective disclosure.[194] The theory is supported by congressional intent to "facilitate an investor's reliance on the integrity of those markets" by creating a "free and open public market" in which the "price reflects as nearly as possible a just price."[195] Since "the price of a company's stock is determined by the available material information regarding the company," misinformation will presumptively affect the price at which others trade.[196] When the misinformation was already incorporated into a price though, the presumption may be rebutted, as a partially informed market does not mislead investors.[197]

Finally, the ECMT has been employed to explain the impact of a corrective disclosure for purposes of determining losses caused by the defendant. Despite claiming not to adopt "any particular theory of how quickly and completely publicly

[192] *See* Elkind v. Liggett & Myers, Inc., 635 F.2d 156, 166–67 (2d Cir. 1980).

[193] Basic Inc. v. Levinson, 485 U.S. 224, 226, 243 (1988).

[194] *See* Greenberg v. Crossroads Sys., Inc., 364 F.3d 657, 661 (5th Cir. 2004). The presumption is rebutted by showing that the plaintiff knew the truth or would have traded even if the truth had been disclosed. *See* Blackie v. Barrack, 524 F.2d 891, 906 (9th Cir. 1975).

[195] *Basic*, 485 U.S. at 246 (quoting from H.R. REP. NO. 73-1383, at 11 (1934)).

[196] *Id.* at 241 (quoting Peil v. Speiser, 806 F.2d 1154, 1160 (3d Cir. 1986)).

[197] *See* Schneider v. Vennard (*In re* Apple Computer Sec. Litig.), 886 F.2d 1109, 1116 (9th Cir. 1989) (holding that, although a company made various optimistic, but misleading, statements that inflated the stock price, the negative, omitted statements, were already priced into the stock due to analyst statements that "effectively counter-balance any misleading impression"), *overruled on other grounds by* Rubke v. Capitol Bancorp, 551 F.3d 1156 (9th Cir. 2009).

available information is reflected in market price,"[198] in reality, *Basic* adopted the semi-strong version of the ECMT.[199] As impersonal markets disseminate information, whether accurate or misleading, "in the processed form of a market price,"[200] the information's impact is used to calculate out-of-pocket losses.[201]

Out-of-pocket losses represent the difference between the "price paid by the plaintiff" and the price the stock *would have been* had the misrepresented or omitted information been public, or the actual value.[202] The actual value is based on either: (1) the "constant ribbon" method, which presumes that the change in value upon the curative disclosure reflects the amount the stock was inflated or deflated by; or (2) the "constant true value" method, which states "that the price following the curative disclosure was the [actual] value" during the period of nondisclosure.[203] The "constant ribbon," otherwise known as the "market model,"[204] in essence places a value on the omitted or misrepresented information and works backward from the date of disclosure, establishing a "value line."[205] The value line is determined through either an "event study," which focuses on the market's reaction to the corrective disclosure,[206] or a comparable

[198] *Basic*, 485 U.S. at 249 n.28.

[199] *See* Macey & Miller, *supra* note 146, at 1077–80 ("Critical to the fraud-on-the-market theory is the assumption that the market can trade at 'incorrect' prices due to the 'artificial' distortions caused by misstatements or omissions."); *see also* Bradford Cornell & R. Gregory Morgan, *Using Finance Theory To Measure Damages in Fraud on the Market Cases*, 37 UCLA L. REV. 883, 884–85 (1990).

[200] *Basic*, 485 U.S. at 244.

[201] *See* Cornell & Morgan, *supra* note 199, at 885.

[202] *See* Elkind v. Liggett & Meyers, Inc., 472 F. Supp. 123, 135 (S.D.N.Y. 1978), *rev'd on other grounds*, 635 F.2d 156 (2d Cir. 1980); Cornell & Morgan, *supra* note 199, at 897.

[203] *See* Jonathan C. Dickey & Marcia Kramer Mayer, *Effect on Rule 10b-5 Damages of the 1995 Private Securities Litigation Reform Act: A Forward-Looking Assessment*, 51 BUS. LAW. 1203, 1204 (1996). To illustrate the difference, suppose a trader purchases stock at $20, and the price then increases to $25, but then falls to $15 upon the corrective disclosure: under the "ribbon" method, the loss would be $10 (price paid less the drop in stock price); under the "true value" method, the loss would be $5 (price paid less the value of the stock with the corrective information). *See id.*

[204] *See* Cornell & Morgan, *supra* note 199, at 897.

[205] *See* Frank H. Easterbrook & Daniel R. Fischel, *Optimal Damages in Securities Cases*, 52 U. CHI. L. REV. 611, 646 (1985). At the date of corrective disclosure, the value line and price line are equal, but the lines are divergent from the period of the omission or misrepresentation until that time. *See* Cornell & Morgan, *supra* note 199, at 886.

[206] *See* United States v. Grabske, 260 F. Supp. 2d 866, 867 (N.D. Cal. 2002).

index, "which approximates what the returns on the security would have been had the fraud not occurred."[207] Neither approach is lenient on defendants, so Congress placed a "cap" on damages when basing out-of-pocket losses on the corrective date of disclosure, fearing that it "may end up substantially overestimating plaintiff's damages."[208] While the different approaches produce different results, these calculations all rely on the assumption that the market will immediately incorporate the disclosed information into a stock's price. The foregoing regulatory and judicial implementations of the ECMT demonstrate the theory's ability to address the ill-effects of securities fraud and informational disadvantages while establishing the parameters for liability in connection with undisclosed information.

B. The Prohibition of Insider Trading To Preserve Market Efficiency

While the sentencing of insider trading must reflect the ECMT-based principals embodied in other disclosure and securities fraud regulations, it must also measure the impact of illegal trading on the market's efficiency. As recognized by *Nacchio*, any assessment of appropriate sentencing must begin with the nature of the offense that has been committed.[209] The offense of insider trading can be measured by its impediment on an efficiently operating market, since its purpose is to promote equal access to public information.[210] As such, a return to the desired market efficiency represents the conclusion of criminal activity.

1. Insider Trading's Effect on Efficiency

Insider trading is criminalized based on the harm it inflicts on securities markets, as opposed to civil actions, where specific claims of monetary damages are sought.[211] Generally, the stock

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[207] *See* Cornell & Morgan, *supra* note 199, at 897.

[208] H.R. REP. NO. 104-369, at 42 (1995), *reprinted in* 1995 U.S.C.C.A.N. 730, 741 (referring to Rule 21D(e) of the Private Securities Litigation Reform Act of 1995 (15 U.S.C. § 78u-4(e) (2006))).

[209] *See* United States v. Nacchio, 573 F.3d 1062, 1072 (10th Cir.), *cert. denied*, 130 S. Ct. 54 (2009).

[210] *See* SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 852 (2d Cir. 1968).

[211] *See* Kenneth Mann, *Punitive Civil Sanctions: The Middleground Between Criminal and Civil Law*, 101 YALE L.J. 1795, 1808–09 (1992).

market is seen as a safer alternative to owning wealth, since individual risk-aversion interferes with overall economic efficiency by discouraging otherwise sound economic investments.[212] In an efficient market, where information is automatically disseminated and reflected in a price, individuals can more efficiently gather and process information regarding specific companies.[213] Since the presence of insider trading at any given time is by nature unknown, traders are unable to accurately account for it in making their investment decisions, increasing the risk of ownership. Public investors will then bear the initial loss as a result of any specific insider trading, although the ECMT holds that they are able to shift this cost, with most eventually falling on the firms.[214]

According to the ECMT, the ideal mechanism to attain efficient and liquid markets is through "a competitive information traders' market."[215] As opposed to insiders with monopolistic access to information, informational traders cannot manipulate disclosures as easily, yet can realize economies of scale in discovering, "analyzing[,] and pricing general market information."[216] When fraud such as insider trading is pervasive though, these economic efficiencies cease, thereby increasing the cost of gathering information and leading to a decreased number of traders.[217] Consequently, competition is reduced, and remaining investors are left with higher "bid-ask spread[s]."[218] Those who trade with insiders will inevitably lose out, a loss that "cannot be diversified away, as *all* trades are triggered by either a price change or the arrival of new information."[219] At the same time, trades by insiders will have only a nominal impact on the supply of the stock—an increase if the insider is selling, a decrease if buying—as their trades are normally insufficient to effect prices to reflect all information or signal to other investors the nature of the undisclosed information.[220]

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[212] *See* Boyd K. Dyer, *Economic Analysis, Insider Trading, and Game Markets*, 1992 UTAH L. REV. 1, 7–9.

[213] *See id.* at 35.

[214] *See id.* at 60–62.

[215] Goshen & Parchomovsky, *supra* note 150, at 735–36.

[216] *See id.* at 733–36.

[217] *See id.* at 775.

[218] *See id.*

[219] *See id.* at 726.

[220] Gilson & Kraakman, *supra* note 139, at 630. *But see infra* notes 302–03.

Nonetheless, if certain market conditions exist, notably, the presence of adequate numbers of information traders, the market will be able to reflect the impormation's value upon dissemination. This occurs for the same reasons that a market is unable to price the stock when the information is undisclosed. The ECMT posits that the later corrective disclosure should allow for "an informed judgment [that] can be made by all investors who trade in such markets"[221] and consequently, the resumption of the market's functions of evaluating securities evaluation and allocating capital.

2. Insider Trading's Effect on Market Participants

The most obvious victims of insider trading are those that trade opposite of the insider. Not only do those investment decisions lack all available information, but the trader either purchased at an artificially high price—where the insider was selling on negative information—or sold at an artificially low price—where the insider was buying on positive information. These effects, however, should not be overstated. An insider's nondisclosure fortuitously benefits those who traded *with* the insider during this period. Further, an insider's trades may imply the direction of the stock were the information disclosed, thereby improving the accuracy of the stock's price.[222]

Insider trading also leads to a loss of confidence in the markets. While the legislative history of Rule 10b-5 reflects that investor confidence was an important policy protected by insider trading laws because of its potential influence on market integrity,[223] it amounts to nothing more than a fairness issue.[224] Insider trading liability is premised on "an affirmative duty to disclose" information or abstain from trading[225] that instills the market with confidence that trades are made on an equal playing

[221] Shapiro v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 495 F.2d 228, 235 (2d Cir. 1974).

[222] *See* Easterbrook & Fischel, *supra* note 205, at 645.

[223] *See* 129 CONG. REC. 24,613 (1983) (statement of Rep. Wirth) ("Insider trading threatens our capital markets by undermining the public's expectations of fair and honest securities markets where all participants play by the same rules.").

[224] *See In re* Faberge, Inc., Exchange Act Release No. 10,174, 1 SEC Docket 21, at 254 (May 25, 1973) ("Few practices, short of manipulation, have as deleterious an effect on the investing public's confidence in corporate institutions and the securities markets as the selective disclosure of and misuse of so called inside information, *i.e.*, material, non-public information.").

[225] Chiarella v. United States, 445 U.S. 222, 231 (1980).

field. While a sense of unfairness may persist beyond a corrective disclosure, it is not of the nature punishable by law, since the duty concludes upon disclosure, and "not every instance of financial unfairness constitutes fraudulent activity under § 10(b)."[226] Further, such abstract harms are too difficult to measure to warrant extending the time-frame that a sentence is based on.[227]

The company whose information is being used by the trader to trade on has the strongest interest in preventing insider trading.[228] The information takes the form of property, which the company has a vested right to use for whatever purposes it sees fit.[229] However, the "self-serving use of a principal's information to purchase or sell securities, in breach of a duty of loyalty and confidentiality, defrauds the principal of the exclusive use of that information."[230] In addition, insider trading directly increases various costs to a company—of reducing risk;[231] of using the market through reduced economic efficiency;[232] and management agency costs borne by other market participants that lead to discounted prices, resulting in higher costs of capital.[233] It is the increased cost of capital that is the most dramatic harm felt by the company because traders, and not the company itself, are able to profit from the information affecting the company.[234] These costs cease to negatively impact a company upon disclosure, however, as the cost of capital should reflect the

[226] *Id.* at 232.

[227] *See* Kenneth E. Scott, *Insider Trading: Rule 10b-5, Disclosure and Corporate Privacy*, *in* ECONOMICS OF CORPORATION LAW AND SECURITIES REGULATION 120, 121 (1980) (discounting such fairness arguments as "one of those qualities which exist in the eye of the beholder and elicit little effort at explanation").

[228] *See* Easterbrook & Fischel, *supra* note 205. Take for instance a broker who was known to be investigated for insider trading and actually received phone calls from prospective investors inquiring into his services. *See* Richard L. Stern, *The Inside Inside Story*, FORBES, Mar. 12, 1984, at 62.

[229] *See* Scott, *supra* note 227, at 130.

[230] United States v. O'Hagan, 521 U.S. 642, 652 (1997).

[231] Dyer, *supra* note 212, at 63.

[232] *Id.* ("This cost causes economic inefficiency because some firms—those that are sufficiently risk averse—will forego risky business opportunities.").

[233] Goshen & Parchomovsky, *supra* note 150, at 776.

[234] *See id*.

correct information immediately.[235] Further, the threat of increased costs of capital is only applicable in the case of undisclosed positive information.[236]

C. *Applying the Efficient Capital Market Theory Approach to Criminal Sentencing*

In addition to assessing the social harms of insider trading, a criminal sentence must reflect the trader's culpability to ensure consistency with the policies of criminal law and sentencing.[237] By definition, one is no longer trading on the basis of undisclosed information when the sale follows disclosure, but one is instead trading on the basis of all information, which according to the ECMT, is reflected in the price at which the sale occurred. Since the trader completes the sale at the same price as the rest of the market, only the trader's gains as defined by the corrective disclosure should be considered in sentencing.[238]

1. Defining the Prohibited Offense

Sentences based on insider trading, as with any crime, must reflect the nature of the offense.[239] The elements of insider trading are satisfied when an individual possesses and uses nonpublic information in making the securities transaction, but the illegal conduct stops when the deceptive action concludes.[240] The focus on the use of *undisclosed* information is reinforced by the ECMT: A market is efficient, both in terms of its pricing and capital allocation functions, if a trader simply "knows" of insider information but refrains from dealing in the security. As such, the criminal components of insider trading further demarcate the boundaries of liability for sentencing purposes.

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[235] *See id.* at 777.

[236] Unlike the non-disclosure of positive information, which precludes the company from borrowing money at a more favorable rate, the non-disclosure of negative information artificially reduces the cost of capital and therefore, benefits the company. *See* United States v. Nacchio, 573 F.3d 1062, 1076 (10th Cir.), *cert. denied*, 130 S. Ct. 54 (2009).

[237] *See Nacchio*, 573 F.3d at 1077.

[238] It should be noted that that the trader's sale *after* disclosure is the concern for trading on positive information. As exhibited in *Nacchio*, when trading on negative information, the trader likely sold well *before* the corrective disclosure. 573 F.3d at 1076. In both cases, the date of disclosure is crucial.

[239] *See* 18 U.S.C.A. § 3553(a)(1)–(2) (West 2011).

[240] United States v. Mooney, 425 F.3d 1093, 1106 (8th Cir. 2005) (en banc) (Bright, J., dissenting).

From a criminal law perspective, the initial trade based on undisclosed information satisfies the actus reas requirement.[241] This act must coincide with the attendant circumstances[242]—the trade occurring while the information remains undisclosed.[243] The action and circumstances are linked temporally by the element of causation, as the statute requires the transaction to occur "in connection with" a sale or purchase.[244] As such, trading absent the knowledge of the undisclosed information is not criminal.[245] Yet this concept has not been consistently applied, as the *Mooney* Court penalized the trader's "gain[s]" as those obtained "through trading" generally—in essence, the gross profit the defendant obtained when all was said and done.[246] But under *Mooney*'s approach, a trader that purchased shares at a price below the sales price earned no "gains," regardless of whether further losses were avoided by selling. By basing a sentence on net profits, and not profits caused by the illegal act, this approach blatantly disregards the element of causation.[247]

The necessity of a trader's use of information also sheds light on when the offense has concluded. If a trader—aware of the information and already owning shares previously obtained legally—merely holds onto his shares based on the inside information and sells following disclosure, the trader has not committed a crime under Rule 10b-5.[248] As the use of inside information forms the basis of the insider's duty to "disclose or abstain" from trading,[249] there is no duty to abstain from trading

[241] *See* JOSHUA DRESSLER, CASES AND MATERIALS ON CRIMINAL LAW 127 (5th ed. 2009) ("The '*actus reus*' is the physical or external part of the crime . . . .").

[242] *Id.* at 147 ("An attendant circumstance is a condition that must be present, in conjunction with the prohibited conduct or result, in order to constitute the crime.").

[243] *See* 17 C.F.R. § 240.10b-5(c) (2010).

[244] *See id.*

[245] *See* SEC v. Happ, 392 F.3d 12, 23 (1st Cir. 2004).

[246] *See* United States v. Mooney, 425 F.3d 1093, 1099 (8th Cir. 2005) (en banc) (quoting U.S. SENTENCING GUIDELINES MANUAL § 2B1.4 cmt. background (2010)).

[247] *See* United States v. Nacchio, 573 F.3d 1062, 1072 (10th Cir.), *cert. denied*, 130 S. Ct. 54 (2009). To illustrate the flaws in assessing culpability of trading on negative information, take two traders with options exercisable at $10: A exercises and sells while the stock is selling at $35, making a profit of $25; B waits, and exercises and sells at $10, making no profit. When the negative information is then disclosed, the price of the stock falls to $5. While B avoided $5 of losses through the insider knowledge, under the net profit approach, only A would be punished, because B did not earn a "gain." *See id.* at 1084.

[248] *See id.* at 1072.

[249] *See* United States v. Smith, 155 F.3d 1051, 1068 (9th Cir. 1998) ("It is the insider's use, not his possession, that gives rise to an informational advantage and

immediately upon disclosure.[250] The sentence imposed must be tied to the "real [criminal] conduct," and therefore, it must disregard profits obtained legally,[251] which is when the duty to abstain has ended: upon a corrective disclosure.

Since insider trading sentencing is based on the "gain resulting from the offense,"[252] and the offense concludes upon dissemination, any consideration of post-dissemination gains is excessive and unwarranted. While *Mooney* was right in noting that the Guidelines reject victims' losses as a metric of culpability,[253] it failed to realize that it is equally important to impose a sentence that ignores subsequent gyrations of the market following dissemination.[254] The court in *Nacchio* properly understood that "the court's focus should be on ensuring that the gain figure resulting from the offense excludes to the extent possible . . . factors unrelated to the defendant's criminally culpable conduct."[255] By suggesting that the cut-off date may extend to a reasonable time after disclosure,[256] *Nacchio*'s approach does not go far enough in this regard, since moving the measurement date forward in time ensures that fewer outside factors are priced into a stock's value for calculation purposes.[257]

The criminal law focuses on punishing the defendant.[258] The ECMT works within the context of criminal liability to determine whether an insider's gains will ultimately be incorporated into a punishment. The proscribed punishment is a contribution of retributive—focusing on the perceived severity of the conduct

the requisite intent to defraud."); SEC v. Adler, 137 F.3d 1325, 1333, 1337 (11th Cir. 1998) (holding "that mere knowing possession—i.e., proof that an insider traded while in possession of material nonpublic information—is not a *per se* violation" of Rule 10b-5).

[250] *See* United States v. O'Hagan, 521 U.S. 642, 655 (1997) ("[F]ull disclosure forecloses liability . . . .").

[251] *See* Alexandra A.E. Shapiro & Nathan H. Seltzer, *Measuring "Gain" Under the Insider Trading Sentencing Guideline Based on Culpability for the Deception*, 20 FED. SENT'G REP. 194, 197 (2008) (alteration in original) (quoting United States v. Booker, 543 U.S. 220, 253 (2005)).

[252] *Nacchio*, 573 F.3d at 1067.

[253] *See* U.S. SENTENCING GUIDELINES MANUAL § 2B1.4 cmt. background (2010).

[254] *See Nacchio*, 573 F.3d at 1077.

[255] *Id.* at 1080.

[256] *See id.*

[257] *See* Dura Pharms., Inc. v. Broudo, 544 U.S. 336, 342–43 (2005).

[258] *See* Mann, *supra* note 211, at 1808.

and the resulting harm[259]—and utilitarian elements. A primary utilitarian element is deterrence, which must be imposed at the most efficient levels, since imprisonment produces a social cost not found in the payment of damages.[260] The *Nacchio* Court supported the disgorgement approach in part because of its ability to deter improper conduct[261]—yet its approach fails to adequately achieve this goal.

The consequences of criminal securities regulation have ineffectively deterred fraudulent conduct. Because of the complex set of outside factors that uniquely affect corporate crime and the infrequency of detection, criminal securities regulation must strive to punish the immoral conduct at issue.[262] While perhaps not the basis for conviction, retributive principles—or the degree of blame an act deserves—therefore, limit the extent of the sentence.[263] As insider trading is triggered by an initial purchase using inside information, culpability is inextricably tied to the effects of that inside information and not just trading generally. Therefore, the moral blame of insider trading is contingent on and limited to gains from the undisclosed information.

2. Federal Sentencing Guidelines

The Guidelines mandate that sentences reflect the severity of the crime but must not be greater than necessary to comply with the Guidelines' stated policies.[264] A sentence based on the difference between the purchase and market price upon disclosure is justified because it: (1) establishes clear standards of punishment; (2) avoids sentencing disparities; and (3) deters future criminal conduct.

First, punishing only according to the corrective disclosure ensures that a definite period of imprisonment is produced, a

[259] *See* Wendy Gerwick Couture, *White Collar Crime's Gray Area: The Anomaly of Criminalizing Conduct Not Civilly Actionable*, 72 ALB. L. REV. 1, 54 (2009).

[260] *See id.* at 47–48.

[261] *See Nacchio*, 573 F.3d at 1079.

[262] *See* Geraldine Szott Moohr, *An Enron Lesson: The Modest Role of Criminal Law in Preventing Corporate Crime*, 55 FLA. L. REV. 937, 973–74 (2003).

[263] *See* Gerard E. Lynch, *The Role of Criminal Law in Policing Corporate Misconduct*, 60 LAW & CONTEMP. PROBS. 23, 44–45 (1997).

[264] *See* 18 U.S.C.A. § 3553 (West 2011).

goal of particular importance in white-collar crime.[265] Clear standards are achieved by avoiding extensive fact finding, which is especially appropriate given the practical considerations at sentencing.[266] The event study methodology proposed by the defendant in *Nacchio*, although premised on the ECMT,[267] fails to address these concerns. The court in *Nacchio* remanded for a determination of when the information had been fully digested by the market, "[s]o long as the end date chosen results in a 'reasonable approximation' of illegal profits."[268] According to the defendant's event study, the effect of the disclosures on the stock's price formed the basis of the portion of the proceeds attributable to the inside information.[269] A determination as to when information has been sufficiently "corrected," however, will likely be resolved in the trial court's finding of guilt[270] and therefore, provides a clear result. The potential benefits of event studies are also limited. The impact of institutional traders and the increased reliance on electronic dissemination of information[271] makes it unlikely that more than one day's worth of trading in a liquid market is needed to "absorb" a piece of information.[272]

Second, and most importantly, this approach "avoid[s] unwarranted sentencing disparities among similarly situated

[265] *See* Stephen Breyer, *The Federal Sentencing Guidelines and the Key Compromises upon Which They Rest*, 17 HOFSTRA L. REV. 1, 22 (1988).

[266] *See* United States v. Olis, 429 F.3d 540, 547 (5th Cir. 2005) (noting the "time and evidentiary constraints on the sentencing process"); United States v. Bahkit, 218 F. Supp. 2d 1232, 1240 (C.D. Cal. 2002) ("Most defendants do not have the resources to hire an independent expert and the government has similar financial constraints.").

[267] *See* Cornell & Morgan, *supra* note 199, at 886.

[268] *See* United States v. Nacchio, 573 F.3d 1062, 1080 (10th Cir.), *cert. denied*, 130 S. Ct. 54 (2009).

[269] *See id.* at 1068.

[270] *See, e.g.*, *id.* at 1066 (finding the defendant's guilt was based on evidence indicating that the full extent of the information traded on was nonpublic until a later, specific disclosure).

[271] *See* Use of Electronic Media, Securities Act Release No. 7856, Exchange Act Release No. 42,728, Investment Company Act Release No. 24,426, 65 Fed. Reg. 25,843, at 25,844 (May 4, 2000) ("The increased availability of information through the Internet has helped to promote transparency, liquidity and efficiency in our capital markets.").

[272] *See, e.g.*, Cornell & Morgan, *supra* note 199, at 890 n.23 ("The efficient market hypothesis implies that the market price should reflect the information in the announcement no later than the close of trading on . . . the day that the *Wall Street Journal* published an article about the press release.").

defendants."[273] The Supreme Court in *Booker* reiterated the need for uniformity of sentences, not only "for those convicted of violations of the same statute," but, "more importantly, of similar relationships between sentences and real conduct."[274] As the dissent in *Mooney* illustrated with the "Moe, Larry, and Curly" hypothetical, by only using market prices that reflect a security's information at the time of sale, the conduct is divorced from the sentence and results in disparate sentences.[275] Sentencing disparities even arise between traders who profited the same during the undisclosed period and whose stocks increased equally following disclosure.[276] The Guidelines do not distinguish between gains through small volume trading on extraordinarily significant information that drastically alters the price of the security from gains obtained through high volume trading on minor pieces of information. By accounting for profits unrelated to the curative disclosure, defendants trading on less significant information but a larger number of shares will be punished more than those with smaller holdings who trade on more valuable information.

A third policy of the Guidelines is to impose sentences that "afford adequate deterrence to criminal conduct."[277] It could be argued that applying the ECMT approach to calculate gains would invite insider trading because it may result in lower sentences. But, lower sentences would only result if the stock price continued in the direction it moved upon disclosure. If the stock price "bounces back" following the initial reaction to the curative disclosure—a typical event upon the release of significant information—the ECMT approach actually results in

[273] United States v. Jackson, 959 F.2d 81, 83 (8th Cir. 1992).

[274] United States v. Booker, 543 U.S. 220, 253–54 (2005).

[275] *See supra* note 90.

[276] For example, two traders illicitly earn the same gains at the date of disclosure. Trader A bought 100 shares of Company X at $9 each, and on disclosure, the price increased to $10. Trader B bought 50 shares of Company Y at $8 each, and on disclosure, the price increased to $10. Using the date of disclosure as the end date, both gained $100 from insider trading and thus would be sentenced equally. If both retain their holdings, and over the subsequent year, shares of X and Y increase in value equally, say by $1, then under the *Mooney* net profit method, Trader A will be sentenced longer because he realized $50 more in gains than B.

[277] 18 U.S.C.A. § 3553(a)(2)(B) (West 2011). Deterrence is also a stated policy of the SEC in criminalizing insider trading. *See* SEC. & EXCH. COMM'N, 25TH ANNUAL REPORT OF THE SECURITIES EXCHANGE COMMISSION 4 (1959), *available at* http://www.sec.gov/about/annual_report/1959.pdf.

a higher sentence.[278] Further, effective deterrence requires not just the threat of punishment but a sense of justice because the community must consider the punishment.[279] This could explain why, despite increased prosecution of insider trading, virtually no deterrence effect has been observed.[280] As one commentator has noted, "[h]arsher sentences may sell well in elections, but they appear unlikely to have large deterrence benefits."[281] Punishing for changes in a stock's value unrelated to the disclosure could further erode any stigma associated with the offense, whereas "a short but definite period of confinement might deter future crime more effectively."[282]

D. Application of the ECMT Approach to Gain Calculations

This Note proposes calculating gains as the difference between the initial transaction—made on the basis of material, nonpublic information—and its price concurrent with the corrective disclosure.[283] At this point, since the ECMT states that the price of the stock will immediately reflect the previously undisclosed information, any appreciation in price subsequent to the initial purchase represents the illicit gains and consequently,

[278] *See* H.R. REP. NO. 104-369, at 42 (1995) (Conf. Rep.), *reprinted in* 1995 U.S.C.C.A.N. 730, 741.

[279] *See* Lynch, *supra* note 263, at 47–48 (comparing the moral implications of technical and routine trivial white-collar crimes with the stigma associated with violating the rules of Prohibition, which ultimately led to a lack of respect of the criminal law in general).

[280] Jesse M. Fried, *Reducing the Profitability of Corporate Insider Trading Through Pretrading Disclosure*, 71 S. CAL. L. REV. 303, 332–33 (1998) (contending that corporate insiders' continuing ability to make insider trading profits reflects the lack of deterrence in the current regulatory scheme because the SEC does not have the resources to investigate and follow up on tips, and it is difficult to prove a violation through proof of the piece of information the insider traded on).

[281] Michael A. Perino, *Enron's Legislative Aftermath: Some Reflections on the Deterrence Aspects of the Sarbanes-Oxley Act of 2002*, 76 ST. JOHN'S L. REV. 671, 688 (2002).

[282] *See* Breyer, *supra* note 265.

[283] This calculation is based on a trader's gains from positive information. When a trader sells on the basis of negative information, the difference between the closing prices immediately preceding disclosure and immediately following disclosure is to be used. The difference between the two scenarios is that the "buy low" trader's gains involve the purchase price, while the "sell high" trader's gains do not. The primary reason for this distinction is that a "sell high" trader may not have purchased the shares illegally and thus only the later illegal sale is relevant. In this situation, this Note proposes that an approach comparable to the "constant ribbon" method be used, in that the market's reaction to the information represents the trader's gain or losses avoided. *See supra* notes 203–06 and accompanying text.

dictates the sentence. Such an approach reflects the nature of the prohibited conduct and resulting harms in its economic context.

The suggested use of the ECMT to determine the proper measure of gains in insider trading sentencing may not be appropriate in all cases, as it requires a sufficiently efficient market to begin with and may be overcome with proof to the contrary. First, the security must be traded on a national market exchange, with adequate volume.[284] Second, the corrective information must be adequately disclosed, although this may be presumptively established if the stock price has been affected and some public disclosure has taken place.[285] Such a disclosure need only be "in a manner calculated to reach the securities market place in general through recognized channels of distribution, and public investors must be afforded a reasonable waiting period to react to the information."[286] This "reasonable waiting period"[287] is incorporated by looking at the stock price at the next closing price, which reflects both the ECMT as well as the practical reality of when information, especially of the corrective nature, is disclosed.[288]

The rationale for the presumption of a corrective disclosure is that the conviction has already established the materiality of the information, in that it was initially traded on *because* it would affect the stock price. Further, strong form efficiency indicates that the information has partly been absorbed even prior to that disclosure. Volume and price movements themselves send a message to analysts regarding the nature of insider information, especially if some analysts can deduce the identity of insider traders.[289] Therefore, if sufficiently traded and adequately disclosed, according to the ECMT, the price at the next closing bell represents the value of the stock with that

[284] *See* Daniel R. Fischel, *Efficient Capital Markets, the Crash, and the Fraud on the Market Theory*, 74 CORNELL L. REV. 907, 912 (1989) (noting the preconditions for use of the fraud on the market theory).

[285] *See* SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 852 (2d Cir. 1968).

[286] *In re* Faberge, Inc., Exchange Act Release No. 10,174, 1 SEC Docket 21, at 6 (May 25, 1973).

[287] *Id.*

[288] *See supra* notes 271–72 and accompanying text.

[289] *See* Gilson & Kraakman, *supra* note 139, at 572–79. One study shows that a simple strategy of trading upon 16(a) filings earns excess returns of three to five percent. *See* Fried, *supra* note 280, at 325 n.87.

information.[290] Since the trader profited by the value of stock with the inside information, the gain has been established, regardless of a subsequent sale.

The analysis used by courts to determine the adequacy of the corrective disclosure should remain consistent with those principals implicating liability in the first place. Therefore, a "complete" corrective disclosure is not required to assess an insider's gain, as the ECMT indicates that even uncertainty will be factored into a stock's price.[291] Market reactions in the direction implied by the information may indicate whether an adequate corrective disclosure has occurred.[292] In the case of a clear corrective disclosure directly contradicting or revealing what was originally nonpublic, the determination is simple: the date of disclosure. When there is only a partially corrective disclosure, a court should consider if the disclosure satisfies the "public information" test.[293] If so, then the information has been reflected in the price, and gains may be measured. This approach avoids the pitfalls of trying to precisely match the information traded on with what is later disclosed, otherwise known as establishing an "equivalent disclosure."[294] Additionally, it recognizes that liability attaches to the information and not the total effect of an insider's trades, as the materiality of each disclosure is viewed independently.[295]

The strict ECMT approach also best furthers the goals of causation mandated by *Dura Pharmaceuticals* and criminal sentencing by punishing only those gains caused by the deceptive trading.[296] Unlike in *Mooney*, the measure of gains, in the

[290] *See* Dennis, *supra* note 144, at 419 ("The courts should limit their inquiry to whether a particular item of information has, or would have, affected the price of a stock.").

[291] *See* SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 849 (2d Cir. 1968) (noting that a stock price reflects "a balancing of both the indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity").

[292] *See* SEC v. MacDonald, 699 F.2d 47, 54–55 (1st Cir. 1983) (en banc).

[293] *See supra* notes 187–90 and accompanying text.

[294] *See* Cornell & Morgan, *supra* note 199, at 894–97 (discussing the problems that arise when, as noted in *Basic*, the fraud consisted of the non-disclosure of merger *discussions*, but the corrective disclosure was the merger *completion*).

[295] *See* United States v. Nacchio, 519 F.3d 1140, 1157 (10th Cir. 2008) ("If an insider trades on the basis of his perception of the net effect of two bits of material undisclosed information, he has violated the law in two respects, not none."), *vacated in part en banc*, 55 F.3d 1234 (10th Cir. 2009).

[296] Dura Pharms. v. Broudo, 544 U.S. 336, 343 (2005).

context of either positive or negative information, is based on the benefit derived from illegally trading and not gross profits.[297] Therefore, even if a trader ended up losing money on the transaction, if the information the trader sold on allowed him to sell at a higher price than otherwise, the loss avoided is dispositive. Under *Nacchio*, the stock price for calculating gains is "when the information is disclosed and absorbed by the market."[298] The proposed ECMT method, on the other hand, uses the stock price only upon disclosure. While the flexible "reasonable time" standard in *Nacchio* is meant to reflect "that the price of thinly traded stocks will not adjust as quickly or as accurately as the price of stocks such as IBM," it also "lack[s] . . . [any] reference to an adjustment for the movement of the market in the interim"[299] period between when disclosed and absorbed.

Further, the common methods for determining when information has been absorbed have inherent flaws that outweigh any potential benefits they may provide. Comparable indexes will automatically attribute any change in price not otherwise reflected in the relevant index to the fraud, and therefore, if there is other company-specific information of the same nature—positive or negative—gains will be overstated.[300] Under the ECMT approach, this other information will be excluded to the greatest extent possible by holding that only the market reaction upon disclosure constitutes avoided losses. Statistical models commonly employed to quantify the "impact" of information on stock prices, such as event studies, may partially address this problem but fail to account for leakages of information. For example, if investors traded solely based on watching the trading activity of known insiders, the impact of the corrective disclosure will be mitigated.[301] Such studies, when used by defendants who are obvious insiders, such as Nacchio, will conclude that the market only slightly reacted to the corrective disclosure, and thus, the impact of that information was minimal, when in fact, the price had already partially

[297] United States v. Mooney, 425 F.3d 1093, 1100 (8th Cir. 2005).

[298] United States v. Nacchio, 573 F.3d 1062, 1082 (10th Cir.), *cert. denied*, 130 S. Ct. 54 (2009).

[299] *See* Easterbrook & Fischel, *supra* note 205, at 646–47.

[300] *See* Cornell & Morgan, *supra* note 199, at 903.

[301] *See id.* at 903–05.

reflected the information contained in the disclosure.[302] If only market reactions form the basis of gains, sentences will then be understated. But under the ECMT approach, by factoring in all gains derived from positive information subsequent to the initial illegal purchase, these leakages are reflected in the sentence so that the total benefit derived from the information is applied to the sentence.

CONCLUSION

Applying the ECMT to the calculation of insider trading gains for criminal sentencing purposes results in the most equitable punishment for the nature of the offense committed. In doing so, it recognizes the arguments regarding the culpability and duration of the offense of trading on inside information raised in *Nacchio* but also the practicalities of the sentencing process and the need for a clear and coherent punishment advocated by *Mooney*.

"In the aftermath of the financial crisis," it is not surprising to see "a re-direction of criminal enforcement attention toward Wall Street using aggressive methods."[303] Nevertheless, it is incumbent on courts to focus on the harms and conduct of insider trading when sentencing those found guilty. As the offense revolves around the possession and use of nonpublic information, the ECMT supplies a universally recognized explanation of when a stock price can be expected to incorporate that piece of information. While the criminalization of insider trading remains a vital tool in protecting the operation of and confidence in publicly traded securities markets, the extent of the harms caused and profits gained through the prohibited act must be kept in perspective. Even on the basis of inside information, trading in public markets still involves risk and is always subject to unforeseen developments and events. One of those uncertainties, however, should not be whether a stock's change in price, which is unrelated to the information that formed the basis of an illegal trade, can affect the time one spends in prison.

[302] *See id.* at 905 n.50. One study found that stock prices of target companies were thirty percent higher prior to the initial announcement of the transaction than what the market model would have predicted. *See* Gregg A. Jarrell & Annette B. Poulsen, *Stock Trading Before the Announcement of Tender Offers: Insider Trading or Market Anticipation?*, 5 J.L. ECON. & ORG. 225, 237 (1989).

[303] Hamilton & Zimmerman, *supra* note 8 (internal quotation marks omitted).