The Effectiveness Of Insider Trading Regulations

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Abstract

This work evaluates the effectiveness of the courts and regulators in achieving a fair and honest market. The regulatory system and market based empirical research are reviewed and evidence of regulatory failure are identified and examined. The advantages and disadvantages of four possible policy changes including new disclosure standards, a bar on insider trading, corporate fines for insider trading, and a new market based standard are discussed. Finally, recommendations for future research are offered.

Introduction

Since the inception of the Securities Exchange Act of 1934 (hereafter the "1934 Act"), the courts and the Securities and Exchange Commission (SEC) have pursued insider trading using a moral standard (a fair and honest market designed to ensure public confidence).¹ Section 2 of the 1934 Act makes it clear that the primary purpose of the 1934 Act was to ensure a "fair and honest market, that is one that would reflect an evaluation of securities in the light of all available and pertinent data" [*Smolowe v. Delendo Corp.*, 136 F. 2d 231 (2d Cir. 1943)]. This concept of moral fairness implies that insider trading should not be allowed even in situations where the economic impact on the marketplace is immaterial. The related regulations and rules have been designed to accomplish this end and during the past two decades regulators in the U.S. have continued to increase disclosure requirements for insiders with the intent of providing a fair and equitable mar-

ket. Similarly, insider trading laws in other countries with significant equity exchanges (such as Japan and Britain) are designed to create fair and honest markets (Japan Securities Research Institute, 1994, p. 63; Suter, 1989, p. 370).

The purpose of this paper is to evaluate the effectiveness of the courts and regulators in achieving their goal of fairness for outsiders (non-insiders). The approach in this paper is twofold. First, the regulations themselves are reviewed for potential weaknesses. Second, empirical market-based research which looks at the activity of insiders at times when they have, or are likely to have, private value-relevant information is reviewed. The preponderance of evidence suggests that on average insiders have an "unfair" advantage over outsiders. That is, research suggests that the moral standard established by the courts and the SEC has not been met. Given this evidence we also discuss some possible remedies.

Readers with comments or questions are encouraged to contact the authors via e-mail.

The next section provides some background on insider trading laws and how they have been enforced by the courts and by the SEC. Section III gives examples of circumstances where, absent the security laws, insiders could use private information to gain unfair advantage over other market participants (outsiders). In Section IV, empirical evidence and case law are reviewed to determine whether the sanctions against insider trading activity have been effective in meeting previously defined standards of fairness. The focus in Section IV is on major corporate events (takeovers, bankruptcies, earnings announcements, etc.) where insiders have the greatest opportunity to exploit non-public information. Section V presents a summary and implications, and Section VI proposes future research directions.

Background: Insider Trading Regulations

Prior to the 1934 Act, insiders were able to buy and sell securities of their own corporations using private information with no legal restrictions and very few court enforced remedies. Despite the fact that the insiders' failure to disclose all pertinent information gave them an "unfair advantage over the general body of stockholders, in general (and by the majority rule), aggrieved stockholders had no right to recover from the insider in such a situation" [quoting Judge Clark in *Smolowe v. Delendo Corp.*, 136 F. 2d 231 (2d Cir. 1943)].²

Abuse of inside information was thought to contribute to the 1929 collapse of the stock market, and there was a perception that the lack of remedies against insiders made the markets unfair to other investors. As previously mentioned, Section 2 of the 1934 Act makes it clear that the primary purpose of the 1934 Act was to insure a "fair and honest market." The 1934 Act set the framework by in three ways. (1) Requiring that insiders disgorge profits obtained from buying and selling securities within a six month period, regardless of whether the trades were specifically linked to inside information.

These requirements are found in Section 16(b). (2) Making it unlawful to use private nonpublic information to effect personal gains from trades in securities. These provisions are addressed in Section 10(b) [and SEC Rule 10b(5)]. (3) Imposing numerous reporting requirements. The Act requires insiders to file an initial report to the SEC identifying themselves as insiders and report changes in their holdings (detailing purchases or sales or other acquisition/disposition of securities) by the 10th day of the month following the month of the change in holdings (e.g., an open market purchase of securities). Recent changes redefine an insider, and require some additional reporting. These requirements are specified in Section 16(a) and related SEC regulations.

Items (1) and (2) are designed explicitly to ensure fairness for outsiders and are discussed in more detail in the following sections. The reporting provisions (item (3)) have no direct influence on equitable or fair treatment of outsiders. They merely provide regulators and other market participants a way to monitor the activity of insiders, and provide administrative sanctions against those who do not comply with the provisions.

Section 16(b) Provisions (The Short-Swing Profit Rule)

The short-swing profit rule (Section 16(b) of the 1934 Act) is aimed at preventing insiders from timing trades to earn profits using private information. Congress was aware of how difficult it is to prove intent, and they structured Section 16(b) so that if the insider makes a profit buying and selling within six months (and if legal action is brought under Section 16(b)), the insider will have to disgorge the profits from the trades. This is a rigid rule that does not admit exceptions for special circumstances. If the trades earn profits for the insider, then the profits are assumed to have occurred because of the insider's use of nonpublic information.

Mr. Corcoran, chief spokesman for the drafters and proponents of the 1934 Act, in hearings before the Committee on Banking and Currency said:

You hold the director responsible (and liable), irrespective of any intention or expectation to sell the security within six months after, because it will be absolutely impossible to prove the existence of such intention or expectation, and you have to have this crude rule of thumb, because you cannot undertake the burden of proof that the director intended, at the time he bought, to get out on a short swing (quoted from Smolowe v. Delendo).

It remains, in ordinary cases, a conclusive presumption that if insiders make a short swing trade that they had access to and used inside information. There is no good faith defense for insiders buying and selling for a profit within a six month period.³

It is important to note that the SEC does not have the authority to bring action under these provisions, and this lack of standing is undoubtedly responsible for the infrequency with which these cases are brought to court.⁴ Management of the corporation has the power to bring such actions but may be understandably reluctant to authorize suits against themselves or their peers. In addition, Agrawal and Jaffee (1996) point out that in at least some cases, potential 16(b) violations stemming from purchases "are less likely to be challenged by lawyers since their fees have to be paid out of the insider trading profits"(p. 6). That is, insider profits that are small will be infrequently litigated since lawyer fees are paid from the insider profits.

Insider Trading Using Private Information

Both the courts and the SEC have stated that, in general, the insider provisions in the law are aimed at achieving "full disclosure of information in the stock market" and "require full and prompt announcements of material facts re-

garding a company's financial condition." From these concepts of what constituted fairness in the market place came the "disclose or refrain" rule. Under this rule, a corporate insider must either disclose all material information to the public or refrain from trading until the information becomes public.⁵ This rule was applied by the Second Circuit Court of Appeals in the landmark case, SEC v. Texas Gulf Sulphur Co., 401 F. 2d 833 (2d Cir.1968). The court held that trading on information not available to the public was a violation of Section 10(b) of the 1934 Act. Numerous other cases have upheld this view.⁶

After the *Texas Gulf Sulphur* case, there was some renewed debate by academics as to whether economic or ethical standards should govern securities regulation. Some scholars believe that the approach of the courts and the regulators is appropriate (Schotland, 1976, p. 1425). However, others have argued that the "fairness" approach is flawed and that economic standards, not ethical ones, should govern security regulations. Some even argue that the disclosure rules which are the cornerstone of the fairness arguments in fact hurt shareholders and lack economic foundation (Manne, 1966a, 1966b, and 1970; Benston, 1973, p. 132). While some may continue to argue that the disclosure rules both hurt shareholders and lack a firm economic foundation, these arguments have not prevailed, and concepts of fairness have been codified by the regulatory agencies and the courts.⁷ That is, the courts and regulatory agencies continue to base sanctions and enforcement activities on the premise that insider trading is not fair to shareholders, and that if insider trading is allowed, the public will lose confidence in the stock market and curtail investments (Beck-Dudley and Stevens, 1989).

In addition, the 1934 Act has been modified and expanded many times over the years in response to concerns about the effect of insider trading on public confidence. In 1980, Rule 14e-3 was adopted making it unlawful for anyone in possession of material, nonpublic in-

formation to trade securities of companies in a tender offer. In 1984, the Insider Trading Sanctions Act was adopted increasing civil and criminal penalties for inside traders and enhancing the SEC's powers in dealing with insider traders. The Insider Trading and Securities Fraud Enforcement Act (1988) established incentives for informants, holds companies responsible for employees, and allows contemporaneous traders to recover losses. And in 1990, the Securities Enforcement Remedies and Penny Stock Reform Act was passed which redefined insiders under Section 16, tightened reporting for options and grants, and established individual fines and corporate responsibility for insiders who fail to file their forms with the SEC in a timely manner.

Similar changes have been made in other countries such as Japan and Britain. In Japan the Securities and Exchange Law was amended in May of 1988 "to toughen the regulations concerning insider trading. In addition, an amendment to the Securities and Exchange Law was passed in May 1992 to extend coverage of insider-trading regulations" (Japan Securities Research Institute, 1994, p.63). In Britain, the Insider Dealings Act of 1985 was enacted placing more prohibitions on insider dealings (i.e. trading) and supplemented prohibitions against trading with private information (Suter, 1989).

The Insider Advantage in an Unregulated Environment

If an insider, holding company shares, receives private value-relevant information, the insider can profit in four ways. If the private information is "good news" - so that the price is likely to go up when the information becomes public - the insider can profit by (1) purchasing more stock or (2) holding (not selling) stock that was going to be sold (and hence avoid forfeiting gains). On the other hand, if the insider has private "bad news" information, the insider can profit by either (3) selling stock to others who do not have the private information and are unaware of the likely impending decrease in stock price

or (4) refraining from purchasing stock that otherwise would have been purchased.

Cases (1) and (3) are very straightforward since in both cases the insiders *act* while in possession of private information. Cases (2) and (4) are not as straightforward, because they do not involve an action, but they are nonetheless important uses of private information. If outsiders had access to the same private information, then they would presumably choose the same action as the insider.

In each of the above cases, the insider has more information than outsiders and uses the information to make trading decisions. The "disclose or refrain" rule (and similar court defined information parity rules) is an attempt to make the markets more fair to outsiders. These rules require that an insider disclose any private value-relevant information prior to trading or else refrain from trading. Clearly, if the insiders must disclose all private (value-relevant) information, and if this were adequately enforced, it would eliminate the possibility of unfairness in all cases (1, 2, 3, and 4). However, while the refrain option in the "disclose or refrain" rule, if adequately enforced, will eliminate the opportunity for unfairness in cases 1 and 3, it also virtually ensures that insiders will be able to use their private information to avoid losses (i.e. enjoy gains) in cases 2 and 4. And, if insiders enjoy profit in these cases, the standard and goal of fairness that has guided the development of the law will not have been met.

Empirical Evidence About the Effectiveness of Insider Trading Laws

Beginning with Lorie and Neiderhoffer (1968) and Pratt and Devere (1970), empirical evidence has consistently found that insiders are able to earn abnormal profits by trading in their own company securities. A number of studies that also provide this evidence [Jaffee (1974), Finnerty (1976b), Seyhun (1986), Rozeff and Zaman (1988), and Seyhun (1992)]. These

studies find positive abnormal returns for insider purchases as large as 9.3% and abnormal losses from insider sales as large as 11.5%. However, the studies do not link the abnormal returns to specific information events like unexpected earnings, or unexpected dividend announcements, or takeover announcements. So, while these studies show that insiders make larger abnormal returns than outsiders do on average, they do not connect private information with these returns. The mere presence of abnormal returns is not evidence that the laws and regulations governing insiders are necessarily ineffective.

However, other studies provide empirical evidence about the relationship between insider activity and specific value-relevant news events such as takeovers, earnings announcements, and dividend announcements. Seyhun (1992) notes that judicial attention is focused primarily on insiders around periods of major corporate events - in particular takeover and earnings announcements. These are clearly instances when insiders have the most opportunity to possess and exploit material private information, so we turn our attention to them in the following pages.

Insider Trading Before Takeovers

A takeover announcement is usually a "good news" announcement for target firms. Keown and Pinkerton (1981) report that during the 60 days before the first announcement of a takeover, average cumulative abnormal returns of their sample of takeover firms is 25.27%. Similarly, Sanders and Zdanowicz (1992) report average cumulative abnormal returns of 32.41% for target firms during the 60 days ending with the announcement date. Given the magnitude of the abnormal returns, if corporate insiders in these firms could act with impunity they would cease sales activity (a case 2 insider advantage) and purchase more of their own stock (a case 1 insider advantage). If the current regulatory environment is effective in forcing insiders to ei-

ther disclose or refrain from trading, then in periods before a public announcement, target firm insiders who know of the impending announcement must cease all trading activity (both purchasing and selling).

Table 1, Panel A, contains some of the pertinent empirical research that deals specifically with the relationship between insider trading activity around the announcement of takeover discussions. The studies by Keown and Pinkerton (1981), Eyssell (1990), Sanders and Zdanowicz (1992) and Seyhun (1992) all deal with this issue and are discussed in more detail below.

Keown and Pinkerton (1981) investigate whether the huge price runups before the first public announcement of takeovers (25.27% for their sample during the 60 days before public announcement) can be attributed to the reported activity of corporate insiders during the month before the first announcement of a planned takeover. They do not attempt to measure abnormal activity, but instead focus on whether the activity that did occur can explain the price runups in the target firms. They find no statistical evidence that abnormal reported corporate insider trading was present and conclude that there is no evidence of frantic or rampant trading by registered insiders in the 30 days prior to the takeover announcements in their sample of firms.

Eyssell (1990) (not included in Table 1) examines the trading of insiders before takeovers from 1975 to 1981. He finds, for the period examined, insiders purchase more (potential case 1 advantage) and/or sell less (potential case 2 advantage) during the period preceding the takeover announcement. On average 4.8% cumulative abnormal returns were found for his sample of target firms in the 30 days before the public availability of the 13D Filing. Eyssell concludes from these and other results that "corporate insiders (especially those in the highest offices) have access to, and may subsequently exploit, nonpublic information about future events that

Table 1
Summary of Some Pertinent Literature Pertaining to Corporate Insider Trading and
Analysis of Strength of Relationship Between Insider Trading and Other Factors and
the Magnitude of Abnormal Returns Pertaining to Related Insider Activity

Insider Trading Activity in Target Firms Around Takeover Announcements					
Panel A					
Author(s) (year)	Sample Period	Issue Investigated	Evidence Measurement	Strength of Evidence	Magnitude of Abnormal Returns
Keown and Pinkerton (1981)	1975- 1978	Evaluation of insider activity in the month before the first announcement of a takeover.	No evidence of rampant/frantic trading by corporate insiders of target firms in the month before takeover announcements.	76% of the firms studied experienced no open market purchases or sales in the month prior to the announcement date, and only 12% had net positive open market purchases.	Average CARs of 25.27% for the 60 day period prior to the announcement period.
Sanders and Zdanowicz (1992)	1978- 1986	Study examines average abnormal returns, trading volume and reported transactions of target firm insiders in periods preceding takeover announcements.	Test whether insiders change their trading activity in the period before the first public announcement of a takeover bid (but after they have private knowledge of the upcoming announcement).	They conclude that there is no increase in purchasing during the time when insiders are informed about the upcoming takeover announcement.	Average CARs of 32.41% for the 60 day period prior to the announcement (significant at the 0.01 level).
Seyhun (1992)	1975- 1989	Looks briefly at insider activity before takeovers. See Panel C for further evidence obtained from this study.	Evaluates (non-statistically) whether large trading profits made by insiders were because of trading before takeover announcements (and/or earnings surprises).	Found that the proportion of takeover announcement months (i.e. the 30 days preceding takeover announcements) with insider purchases ranges from 14.1% to 7.4% over the over the three sub- periods.	N/A

Table 1 Continued
Panel B
Insider Trading Activity Before Bankruptcy Announcements

Author(s) (year)	Sample Period	Issue Investigated	Evidence Measurement	Strength of Evidence	Magnitude of Abnormal Returns
Loderer and Sheehan (1989)	1971- 1985	Investigates whether insiders of bankrupt firms hold less stock or reduce their holdings compared to what we observed for insiders of similar firms that do not go bankrupt.	Not much evidence to support the idea that these insiders do reduce their holdings.		N/A
Eysseil (1991)	1975- 1987	Investigates what insiders do before bankruptcy's and before voluntary liquidations (see Panel C for discussion of the voluntary liquidations)	Uses a standardized measure of the net number of purchases (purchases - sales) and also does Chi-Square test to look at differences between insider activity in the case of bankruptcy versus voluntary liquidation using purchases and sales separately.	Net number of purchases analysis shows significant differences between the two periods (at the 0.01 level for the voluntary liquidation sample and 0.10 level for the bankruptcy sample).	The per firm average CAR of 16.07% for the 36 months leading up to the announced voluntary conversion. CAR of -39.04% for the same period before a bankruptcy.
Gosnell, Keown and Pinkerton (1992)	1985- 1987	Measure insider trading during the 31 month period surrounding the first public announcement of a bankruptcy filing. This study is for OTC firms.	Test using a control sample of firms and the sample of bankrupt firms. The relative frequencies of buy and sell transactions by insiders are compared between the two groups.	Find that insiders in firms that go bankrupt do significantly (at the 0.01 level) more selling in the 18-13 months and 6-1 month prior to the bankruptcy announcement.	Mean losses avoided by insider sellers of 27.55%.

Table 1 Continued
Panel C
Insider Trading Activity Around Other Corporate News Events (e.g. Dividend Announcements)

Author(s) (year)	Sample Period	Issue Investigated	Evidence Measurement	Strength of Evidence	Magnitude of Abnormal Returns
Finnerty (1976a)	1967- 1972	Identification of relationship between insider buying/selling and (1) a large range of fundamental variables (e.g. future earnings and future dividends) and (2) firm characteristics (e.g. firm size).	Weighted factor coefficients from a linear discriminant function were used to evaluate the difference among the means of the factors.	Very strong evidence of the relationship between insider trading activity and size (significant at 0.0000), earnings (significant at 0.0252) and dividends (significant at 0.0001)	N/A
Penman (1982)	1967- 1974.	Evaluates relationship between insider trading and the disclosure of management earnings forecasts, and measures performance of the insiders who bought/sold before and sold/bought after positive/negative management earnings forecasts.	The relationship between the direction of the insider activity measures and the magnitude of abnormal returns was measured. Also, the magnitude of profits to the insiders for their trading was measured.	The direction of insider trading and magnitude of abnormal return in the 3 days around forecast date was significant at the 0.05 level. Abnormal returns associated with trading activity was significant at the 0.0005 level.	Mean 3-day abnormal returns ranged from 1.49% to 14.43% for positive insider trading firms and from 1.3% to -9.00% for selling firms.
Moss and Kohers (1990)	1982- 1983	Investigates whether insiders buy their stock prior to favorable earnings and dividend announcements and hence earn abnormal profits.	Used the period from 2 to 60 days before announcements of higher (at least 10% different) than expected earnings/dividends and measured the return to the insiders.	p-values for the abnormal return to insiders for these cases were significant at levels ranging from 0.036 (where earnings were less than expected) to 0.000 (where dividends were less than expected)	ARs ranged from 34.71% when dividends were greater than expected to -350.89% when dividends were less.

Table 1 Continued
Panel C Continued
Insider Trading Activity Around Other Corporate News Events (e.g. Dividend Announcements)

Author(s) (year)	Sample Period	Issue Investigated	Evidence Measurement	Strength of Evidence	Magnitude of Abnormal Returns
Allen and Ramaman (1990)	1977-1981	Paper examines the joint effects, both additive and interactive of the surprise in annual earnings announcements and prior levels of insider trading surrounding earnings announcements.	Used the trading activity in the 75 day period(s) before earnings announcements. Used ANCOVA to test the main effect between trading activity and earnings surprise	Three day abnormal returns associated with each marginal trading classifications were signed in accordance with the expected implications of the signals (e.g. positive trading would have positive abnormal returns).	Insider purchase activity yielded 3 day CARs of 1.38% on average. CARs during + 2 to + 20 day period was 1.25%.
John and Lang (1991)	1975-1985	Look at net measures of insider trading activity as signaling that is relevant for future dividend announcements.	Test using various regressions between abnormal (excess) returns on/around dividend announcement dates and various insider trading measures.	Insider trading prior to the announcement has significant explanatory power for the returns that are present on the dividend announcement date.	1-day AR for the insider selling group is about 2.2% less than group with dividend announcements.
Park, Jang and Loeb (1995)	1986-1987	Investigate the trading behavior of insiders surrounding the release of earnings information.	Looked at changes in insider activity in the period preceding EPS announcements. Also investigated the actual profit (loss) earned by insiders after their purchases/sales.	Found significant decreases in purchasing activity before earnings announcements, but there are significant increases in selling before bad news announcements. Differences between purchases and sales are highly significant in all cases.	Mean abnormal profits to insiders who bought from -50 to -26 days before earnings announcement of 5.8%. Abnormal profits exceed 8% for good news firms.

affect the value of their firms" (p. 109).

Sanders and Zdanowicz (1992) study insider purchase volume during periods in which the insiders could have traded on nonpublic information. During the 60 days before and including the takeover announcement date, they find average cumulative abnormal returns of 32.41%. But, they find no significant difference in insider trading volume between the "pre-initiation period" (period before any takeover activity) and the "informed period" (period between the point of takeover initiation and public disclosure of the takeover prospect). They conclude that these results reveal "no evidence of abnormal insider trading before the public announcement . . ." and "given the legal prohibitions against and the increased scrutiny of insider trades in the informed period, these results are not surprising" (p. 122).

Seyhun (1992), (not included in Table 1), evaluates whether large trading profits earned by insiders were because of their trading activity before takeovers and earnings surprises. He concludes that in recent periods insiders rarely purchase securities in the 30 days before takeover announcements. He found that the proportion of takeover announcement months (i.e. 30 days preceding takeover announcements) with insider purchases ranged from 14.1% to 7.4% over the three sub-periods he evaluated. He does not however, measure the level of purchasing relative to the expected level.

As noted previously, if restrictions were completely effective, insiders would not be trading at normal levels when they are in possession of material, nonpublic information. Instead, their activities (and especially their purchasing activities prior to a takeover) would cease. Therefore, despite the conclusions of Sanders and Zdanowicz, their study in fact appears to provide very strong evidence that insider trading laws are not completely effective.

In summary, even though the evidence is somewhat mixed, insiders do purchase using what would appear to be private information before takeovers and earn, on-average, significant profit (case 1). Furthermore, there is no evidence of legal action against any of the sample firms (or related insiders) used in these studies. Also, there is at least an inference that, on average, selling activity declines before the first announcement during which time the on-average excess profits are also significant and increasing. This absence of selling by insiders is also consistent with insiders using their private information to avoid forfeiting gains (i.e., winning by not selling, a case 2 advantage).

Insider Trading Before Bankruptcy

Bankruptcy research shows that bankrupt firms often show early signs of financial distress and that bankruptcy's can sometimes be predicted (e.g., Altman, 1968; Altman et al., 1977; Ohlson, 1980). And, stock prices have been shown to adjust during this period of distress. For example, Eyssell (1991) reports that for his sample of bankrupt firms the cumulative abnormal losses are on average 39.04% during the 36 months leading up to the filing, and Bradley and Seyhun (1993) find that in their sample the average cumulative abnormal losses during the two years before bankruptcy are 75.28%.

This evidence shows that stock prices do not adjust fully and quickly. In addition, insiders, who have access to the same distress variables (and prediction models) as outsiders, may also possess other material, non-public information. Given knowledge of an upcoming bankruptcy (and the expected resultant loss of value), if regulations are effective, insiders should cease trading in their stock or disclose their knowledge. If regulations are not effective, then those in possession of this information would cease purchasing activity (a case 4 advantage) and increase sales activities (a case 3 advantage).

Table 1, Panel B lists some of the empirical studies that investigate insider activity around bankruptcy announcements. Loderer and Sheehan (1989), Eysell (1991), Gosnell and Pinkerton (1992), and Bradley and Seyhun (1993) all address this issue and are discussed in the following paragraphs.

Loderer and Sheehan (1989) did not find any evidence that managers of exchange-listed companies increase their stock sales activity in the period prior to a bankruptcy announcement. Gosnell et al. (1992) extend Loderer and Sheehan (1989) by examining insider trading in both exchange-listed and OTC companies for the 31-month period surrounding the first public announcement of a bankruptcy filing. For OTC firms, they find the number of sales transactions (measured by both number of transactions and trading volume) increased significantly prior to the first public bankruptcy announcement. Gosnell et al. (1992) also find that the largest amount of insider selling was associated with those OTC firms which experience the largest decline in share price. Their findings regarding exchange-listed firms are mixed and therefore inconclusive.

Eysell (1991) investigates the activity of insiders before bankruptcies and voluntary liquidations. He finds that insiders in firms that go bankrupt do significantly more selling in the 18 to 13 months, and the 6 to 1 month period before bankruptcy announcements. The related bankruptcy's cumulative abnormal losses total 39.04% for the 36 month period leading up to the announcement.

Bradley and Seyhun (1993) (not included in Table 1) re-examine the trading activities of corporate insiders for both NASDAQ and exchange-listed firms for long periods of time leading up to a bankruptcy announcement. Their paper was motivated by the belief that the Loderer and Sheehan (1989) result could have been the result of methodological weaknesses. Their findings for exchange-listed firms are in fact

very different than those of Loderer and Sheehan. Their conclusions are as follows:

...corporate insiders do in fact engage in significant sales of their firms' stock in the months and even years preceding a bankruptcy petition. Specifically, we find that 1) annual sales are greater the closer the impending filing; 2) chairpersons and chief executive officers sell more than officers; 3) there is a positive relation between the loss to stockholders and the amount of insider selling; 4) there is significant insider buying after a bankruptcy filing in those firms that eventually are reorganized. . . . these relations are significant for both exchange-listed and NASDAQ-traded firms. (p. 2)

In summary, extant research by Bradley and Seyhun (1993) and by Gosnell et al. (1992) demonstrates that some insiders are able to sell their stock before the biggest price declines and avoid significant losses. This evidence of insider selling before bankruptcy is not, however, proof of misuse of private information because there are alternative explanations for the observed outcome. For example, insiders may believe that their firm is not particularly well positioned in the marketplace, and they want to reduce their holdings accordingly (without knowledge of any specific "negative news" that is forthcoming about the company). Thus, (abnormal) insider selling prior to bankruptcy is not evidence per se that insiders have specific private value-relevant information about the impending bankruptcy. Nevertheless, insiders are clearly selling to less informed outsiders who do not appear to be aware of the impending bankruptcy. This end result provides at least prima facie evidence of a case 3 advantage.

Other Evidence of Insider Trading Outcomes

Panel C of Table 1 provides a brief description of some of the studies and their evidence regarding insider trading activity around other corporate news events that are associated with significant price movement, such as divi-

dividend and earnings announcements. The preponderance of the evidence in Panel C again supports the inference that insiders use private information to effect gains. Studies outlined in Panel C are also discussed in this section

Finnerty (1976a) examines the relationship between insider trading activity and both a large range of fundamental variables (including future dividends and earnings announcements) and various other firm characteristics such as firm size. He provides very strong evidence of a statistically significant relationship between the direction of insider trading activity (buying/selling) and (positive/negative) future earnings and dividends surprises (Cases 1 and 3 insider advantages).

Penman (1982) investigates the relationship between insider trading activity and the disclosure of management earnings forecasts. He also measures the performance of insiders who bought/sold before and sold/bought after positive/negative forecast news. Contingency table results show that the relationship between the direction of insider trading (buying or selling) in the months before earnings forecasts and the magnitude and sign of abnormal returns in the 3 days surrounding the forecast was significant at the 0.05 level. Mean 3-day abnormal returns to the insiders who purchased before the news ranged from 1.49% to 14.43% (across different insider buy portfolios) and from -9.00% to 1.30% for sell portfolios. These, too, are examples of case 1 and case 3 insider advantages.

Moss and Kohers (1990) examine insider trading prior to significant earnings and dividend announcements. They use a sample of firms with earnings and dividends news that were at least 10% higher than expected. They find that insiders sold shares before bad news announcements and purchased before good news announcements (Cases 1 and 3). They report that insiders clearly outperform the market for both types of announcements. Specifically, they find abnormal returns ranging from 34.71%

(when dividends are higher than expected) to 350.89% (losses avoided when dividends were less than expected).

Allen and Ramanan (1990) examine the joint effects, both additive and interactive, of the surprise in annual earnings announcements and prior levels of insider trading surrounding earnings announcements. They find that the 3-day abnormal return associated with each marginal trading classification was signed in accordance with the direction of the trading by the insiders (e.g. positive trading was associated with positive abnormal returns), suggesting that insiders are on average correct about their trading decisions in the 75 days before earnings announcements. The 3-day cumulative abnormal return associated with the purchasing activity was on average 1.38%, and the 19-day cumulative abnormal return associated with the +2 to +20 day period was 1.25%.

Eyssell (1991), mentioned previously (and included in Panel B of Table 1) as a paper providing evidence about insider trading before bankruptcy announcements, also investigates insider activity before voluntary liquidations. A comparison of insider transactions in estimation and event periods using the net number of purchases (a combination of cases 1 and 2) shows significant differences between the two periods. The per-firm average cumulative abnormal return was 16.07% during the 36 months leading up to the announced voluntary conversion. Given the long cumulation period, this result cannot be considered compelling evidence that the insiders are trading using private information; however, it is one possible explanation for this evidence.

John and Lang (1991) study the information content of insider trading around upcoming dividend announcements. They find that insider trading immediately prior to the announcement of dividend initiation has significant explanatory power. Their results again imply that insider trading is occurring and that insiders

are acting on information not otherwise incorporated in the stock price (i.e., not publicly available). They find 1-day abnormal returns for the insider selling group are 2.2% less than the remaining group (non-selling) on the dividend announcement date.

Park, Lang, and Joeb (1995) investigate insider trading behavior surrounding the release of earnings information. They find significant decreases in purchasing activity before earnings announcements (a case 4 advantage), but significant increases in selling activity before bad news announcements (a case 3 advantage). The mean abnormal profit to those insiders who bought their own securities from 50 to 26 days before the earnings announcements was 5.8% during the intervening period. For those with large positive unexpected earnings news, the abnormal returns exceed 8.0% on average.

Seyhun (1992) (not included in Table 1) counts the number of insider purchases/sales before positive/negative earnings news and finds very few instances of trading insiders before earnings news. But he notes that judicial attention is focused primarily on insiders around periods of big announcements (e.g., takeover and earnings). He also observes that by focusing on these big announcements, the SEC is, by default, allowing insiders to trade freely at other times. In fact, he finds that during the past decade insiders continue to trade more shares and realize larger profits, despite enhanced insider trading legislation.

Seyhun (1992) is likely correct in his conclusion that insiders are trading at times other than those subject to strict scrutiny by regulators. However, even in these most closely scrutinized periods just before major events such as earnings and dividend announcements and voluntary liquidations, the preponderance of evidence demonstrates that insiders use their private information to effect gains.

Summary and Implications

The 1934 Act was motivated at least in part by a desire to "make the market fair and honest," and, in general, the courts and the SEC have approached enforcement and regulations using this moral standard rather than an economic one. The "disclose or refrain" rule is the most obvious application. The rule requires that insiders either disclose their material private information or refrain from trading. Furthermore, more recent legislation (e.g., the Securities Enforcement Remedies and Penny Stock Reform Act of 1990) has continued to focus on this moral standard. And, laws and regulations in other countries with relatively large equity markets (such as Japan and Britain) have continued to be similarly focused.

Despite increased legal and regulatory focus governing corporate insider actions, enforcement of current rules and regulations allows insiders to extract significant gains from non-public information. The preponderance of empirical evidence shows that insiders tend to purchase more shares than expected before "good news" events like takeover announcements and positive earnings news (a case 1 advantage). They also sell more shares than expected before "bad news" events like bankruptcy and negative earnings news (a case 3 advantage). And, in most studies, there is at least a strong inference that inside information was present when the insiders took their actions. But legal actions have been extremely scarce and primarily in cases where the short-swing profit rule (section 16(b) of the 1934 Act) was violated. One explanation for the lack of enforcement is that, for cases 1 and 3, it is difficult to prove when insiders obtain private value-relevant information. Thus, the legal and regulatory prohibitions have not been completely effective in preventing insiders from trading using their inside information.

Furthermore, as mentioned previously, the "disclose or refrain" rule effectively sanctions the use of private information by insiders in

cases where insiders are able to cancel actions they otherwise would have taken. That is, if insiders plan to sell (purchase) stock but then obtain information that leads them to expect "good" ("bad") news, then they can simply decide not to sell (purchase) and realize abnormal profits on their holdings (avoid losses). These are examples of case 2 and 4 advantages, evident before takeovers and earnings surprises.

In summary, insiders appear to have a consistent investment advantage over outsiders, and the goal of a fair and honest market has not been achieved. In cases 1 and 3 it is unfair because insiders trade using private information, and in cases 2 and 4 it is unfair because the refrain option in the "disclose or refrain" rule requires that they refrain from trading and thus use their private information to earn excess profits.

In order to promote more fairness through regulation, one possible solution would be the imposition of a disclosure requirement on corporate insiders (including their legal, accounting, and investment banking advisors) that requires immediate disclosure of all value-relevant information as soon as it is known by the company. This option is different from the "disclose or refrain" rule in that it would eliminate the refrain option. If adhered to, this approach would force all value-relevant information into the market place, thus allowing insiders and other access to the same information.

If effectively enforced, this type of disclosure requirement would create a marketplace with less private information that is, by definition, fairer to all market participants. However, enforcement difficulties that may explain the current lack of effective enforcement of the disclose or refrain principle would still exist. Furthermore, such disclosure may adversely affect the efficiency of the market. Establishing a set of behavioral or disclosure rules that will increase equity without harming efficiency is a very difficult task. For example, in the case of early disclosure of possible takeovers, target shareholder

interests may be harmed by early disclosure if, as a result, an acquisition fails or is never proposed. Acquiring firms and their shareholders may also be harmed if they have invested in the development of costly private information to identify takeover candidates and early disclosure reduces the value of that information. Also, the costs of compliance, including the legal fees to defend corporate officers from charges of inappropriate or untimely disclosure, could exceed the benefits that may accrue to shareholders.

Fairness could also be enhanced by assessing penalties against corporations for their insiders who are found guilty of insider trading. Under this proposal, corporations would be fined for failing to stop and/or penalize the insider trading. This should encourage corporations to adopt very aggressive corporate policies that restrict/limit insider trading activity. However, identifying when insiders are in possession of inside information would still be problematic and the implausibility of being able to regulate lack of trading (as in case 2 and 4 insider advantages) are very clear weaknesses.

Another proposal is to completely disallow trading by insiders. This solution would certainly remove the perception of unfairness for outsiders, but this solution appears unfair to insiders who would be unable to trade in their own stock and it would clearly have a debilitating effect on employee incentive programs that involve company stock. Furthermore, to the extent that publicly available information on the corporate insider activities are themselves important information for market efficiency (e.g. Givoly and Palmon, 1985), then this solution would contribute to more inefficiency in the stock market.

Finally, some have suggested eliminating "fairness" as a benchmark and decriminalizing insider trading. As noted previously, some scholars have argued that insider trading has a positive role in the marketplace [e.g., Manne, 1966a]. They contend that allowing insiders to profit from their trades rewards those insiders

for their management actions. Others have argued that the abnormal returns realized by insiders are in effect self-fulfilling prophecies. That is, as investors watch the actions of insiders and adjust their own actions accordingly, they magnify the direction of the insiders' trades [e.g., Givoly and Palmon, 1985]. Of course, even if such arguments are valid, they lack the intuitive appeal of a "fairness" standard. Also, the SEC has demonstrated no interest in pursuing market efficiency as a benchmark.

Suggestions for Future Research

As can be discerned from the numerous issues raised in this paper, much research remains in the area of insider trading. Future research should focus on: (1) assessment of the feasibility of creating a market that is fair and (2) the impact of alternative policy views.

Regulators appear to be consistently focused on "fairness" as a guiding principle. This focus is evident as recently as the 1990 Act. However, more empirical assessment is needed concerning just how fair the market is (or can be) under current laws. Also, some evidence exists that insiders may use instruments other than common stock to take advantage of non-public information (e.g., Cleeton and Reeder, 1987). Research must be performed to assess the effect of these other instruments on market fairness.

It may also be argued that the goal of fairness is unachievable, but a market that at least appears reasonably fair to outsiders is sufficient because it will not prevent outsiders from investing and participating in the market. This assumption about the perception of fairness is an issue for future research.

Regulators will likely continue to examine yardsticks other than "fairness" in measuring the effect of new (and existing) securities laws. Some of these other measures should be examined, via econometric analysis and labora-

tory markets, for their potential effect on the marketplace. The conclusions in this paper suggest that the use of an economic standard as a possible regulatory touchstone deserves greater consideration than it has been accorded in recent years.

Footnotes

1. Section 16(a) of the Securities Exchange Act of 1934 defines an insider as an officer, director, or anyone who holds greater than 10% of equity securities. Until May 1991 the definition of an "officer" was defined by the SEC in Rule 3b-2 to include "president, vice-president, secretary, treasurer or principal financial officer, comptroller, or principal accounting officer." Despite the strictness of the definition, this ruling created a loophole in the sense that a person may have significant value-relevant information and not have one of the titles described in the ruling. The courts have attempted to close this potential loophole. For example, in *Colby v Klien* [178 F. 2d 872 (2d Cir 1949)] the court defined "officer" to mean "a corporate employee performing important executive duties of such character that he would be likely in discharging those duties to obtain confidential information about the company's affairs that would aid him if he engaged in personal market transaction." This meant that most of middle management in industries such as financial management were defined as insiders (at least in court), even if they did not have any say in policy making. New rules adopted in May 1991 and promulgated under Section 16 of the 1934 Act helped clear up the definition of an officer (once class of insiders). The new rules require only those officers who have significant policy making duties - as spelled out in the proxy - to report their trades.
2. The U.S. Supreme Court in *Strong v.*

- Repipe, 213 U.S. 419 announced a special circumstances doctrine whereby recovery would be permitted if all the circumstances indicated that the insider had taken an inequitable advantage of a stockholder, even though these remedies were inadequate because of the heavy burden of proof imposed on the stockholders (from Smolowe v. Delendo Corp., 136 F. 2d 231 (2d Cir. 1943)).
3. For examples see Bershad v. McDonough, 428 F. 2d 693 (7th Cir. 1970), cert denied, 400 U.S. 992 (1971); Reliance Electric Co. v. Emerson Electric Co., 404 U.S. 418 (1972); Altamil v. Prior, 405 F. Supp. 1222 (S.D. Ind.1975); Foremost-McKesson, Inc. v. Provident Securities Co., 423 U.S. 232 (1976); Texas International Airlines v. National Airlines, Inc., 714 F. 2d 533 (5th Cir. 19-83), cert. denied, 465 U.S. 1052 (1984).
 4. There have clearly been cases where the "crude rule of thumb" has been a trap for the unwary, and its application may have even on occasion produced unjust results. For example in Western Auto Supply Co. v. Gamble-Skogmo Inc., 348 F. 2d 736 (8th Cir. 1965), cert. denied, 382 U.S. 987 (1966), Gamble-Skogmo purchased 26,000 shares of stock in its subsidiary and immediately contributed them to its employees' profit sharing trust. Within six months it sold its stock in Western Auto to Beneficial Finance Co. at a profit. Beneficial sued (on behalf of its new subsidiary Western Auto) to recover the short-swing profits from Gamble-Skogmo. Despite the fact that the actions of Beneficial Finance Co.'s actions - since it sought to recover a part of the purchase price it willingly paid for the stock, the court allowed recovery by Beneficial Finance Co.
 5. *SEC Comment on Timely Disclosure of Material Corporate Developments*, SEC Release No. 33-5092, [1970-1971 Transfer Binder; FED. SEC. L. REP. (CCH) ¶ 77.915 (Oct. 15, 1970). See also Rhunka & Bagby (1986).
 6. c.f., Superintendent of Ins. v. Bankers Life & Casualty Co., 404 U.S. 6, 11-12 (1971) quoting H.R. Rep No.1383, 73rd Congress., 2d Sess. 6 (1934), and Smolowe v. Delendo Corp., 136 F. 2d 231 (2d Cir. 1943).
 7. For examples, see Manne (1966a, 1966b, 1970) and Fama and Laffer (1971) who argue that "disclosure laws destroy the firms incentive to generate information for trading purposes" (pg. 298).

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