

Is Stock Manipulation Bad? Questioning the Conventional Wisdom with Evidence from the Israeli Experience

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The conventional wisdom is that any trading scheme that is not for investment purposes but, rather, for the purpose of inflating or deflating the market price, namely, manipulation, is fraudulent. This paper treats manipulation as a form of communication between the manipulator and the market. As with any communication, it may sometimes be fraudulent, but often it is based on the manipulator's knowledge, or genuine belief, that a certain stock is being traded at a discount (or premium). Under the assumptions of the CAPM, such an informed party should use this information to trade for investment purposes only, but liquidity and risk constraints, which are ignored by the CAPM, often do not allow him to invest; instead these constraints force him to bid the market up (or down). The manipulator's effect on the market arouses analyst attention and induces the market to update its evaluation of the firm's value. The more liquid the market, the faster the market updates its evaluation of the firm's value, and thus the greater the value to the manipulator if his scheme is based on information.

I support this theoretical claim with an empirical study of stock manipulation indictments brought by the Israeli Securities Agency during the last decade. The study treats each indictment as a competition between two rival analysts: the Agency, which recommends a "hold" at the pre-manipulation price and a "sell" at the post-manipulation price, and the manipulator, who recommends a "buy" at the pre-manipulation price and a "hold" at the post-manipulation

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price. Examining the long-run performance of the forty-five stocks that were the subjects of the indictments, I find that investors could gain by following the advice of the Agency. However, the long-run performance of the twenty-two most liquid stocks shows that these stocks experienced a significant positive abnormal return. This finding provides support for my claim that information is a driving force behind many manipulative schemes, especially those that are conducted in liquid markets.

INTRODUCTION

Manipulative schemes can take different forms. In this paper, I define stock manipulation as the buying (or selling) of a security for the purpose of increasing (or depressing) its market price. I do not address other manipulative practices also aimed at affecting market price, such as dissemination of false information or execution of wash sales. The question this paper deals with is whether and when should stock manipulation be considered a form of fraud. The following two stories are illustrative.

In March 1926, General Motors ("GM") sought a strategic merger with Fisher Body ("Fisher"). One major obstacle facing GM was that Fisher's shares were being traded above the price GM hoped to pay Fisher's shareholders for their shares. GM knew that Fisher's shareholders would reject any offer below market price. To contend with this problem, GM planned on dumping Fisher's shares, with the hope that the deflating effect of this operation would enable GM to close the deal at a lower price.¹

Sixty years later, Boesky signed a greenmail agreement with Gulf & Western Industries ("G&W"), under which G&W was to repurchase Boesky's block of G&W shares at the next day closing market price. Soon after the signing of the deal with G&W, Boesky called Mulheren and asked him to bid up the G&W market price. Mulheren's bids forced an uptick in the G&W market price and made Boesky \$850,000 richer.²

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- 1 Letter from F.D. Brown, GM Finance Committee, to J.J. Raskob, GM Finance Committee (Mar. 13, 1926) (on file with author) [hereinafter Letter from F.D. Brown]; Letter from A.P. Sloan, GM President, to J.J. Raskob, GM Finance Committee (Mar. 13, 1926) (on file with Raskob Papers) [hereinafter Letter from A.P. Sloan]. For the story on the GM-Fisher vertical integration and for reference to these letters, see Alfred Dupont Chandler & Stephen Salisbury, Pierre S. Du Pont and the Making of the Modern Corporation 577 (1971).
 - 2 Boesky was convicted for securities fraud. Mulheren was acquitted in *U.S. v. Mulheren*, 938 U.S. 364 (2d Cir. 1991). As for GM, in the end, its investment

The traditional approach to stock manipulation would treat GM's plan to depress the market and Boesky's type of scheme to inflate it as forms of fraud. In 1991, Fischel & Ross offered an aggressive critique of this approach.³ They based their criticism on both legal and normative grounds. On the legal front, they argued that manipulation does not meet the legal definition of fraud. Even if the manipulator had a fraudulent intent, his trades were real, and thus the prosecution cannot point to any "bad conduct" that would constitute the *actus reus* of this offense.⁴ Their normative analysis suggested further that the costs of regulating manipulation exceed the benefits because: (a) actual trades barely affect price; (b) manipulation has a negative expected return and is therefore self-detering; and (c) in any case, courts cannot easily distinguish between manipulation and investment. On these legal and policy grounds, they concluded, manipulation conducted by means of actual trades, as distinguished from fictitious trades, should not be considered fraudulent.

Steve Thel, in response to Fischel & Ross, offered the best case for the traditional, SEC approach to stock manipulation.⁵ Thel's analysis for why manipulation should be considered a form of fraud consists of three steps: (1) Rational informed traders have no interest in affecting the market price and will always try to buy at the lowest price available and sell at the highest. (2) Market participants look to reported prices as a reflection of transactions between players who trade stock for investment purposes, i.e., buy at the lowest price possible and sell at the highest. Thus: (3) Bids placed for the purpose of raising (or depressing) the price of stock, by buying (or selling) above (or below) the lowest (or highest) price possible, mislead these price-takers. In addition, Thel relies on empirical studies and case law to counter the Fischel & Ross claims about the self-detering nature of this offense and about judicial impotence in this area.

This paper offers an alternative, middle-road approach to stock manipulation. I agree with a large portion of Steve Thel's response to Fischel & Ross. I think manipulation does affect prices; I believe there are circumstances in which manipulation is profitable; and occasionally courts can distinguish between bids placed for the purpose of raising the market price and those placed with an eye to investment. However, I do not

bankers persuaded its directors to back off. See *infra* note 15. However, no one at GM has ever questioned the legality of this manipulative operation.

3 Daniel R. Fischel & David J. Ross, *Should the Law Prohibit Manipulation in Financial Markets?*, 105 Harv. L. Rev. 503 (1991).

4 *Id.*

5 Steve Thel, *\$850,000 in Six Minutes—The Mechanics of Securities Manipulation*, 79 Cornell L. Rev. 219 (1994).

agree with the axiom that stock manipulation is necessarily detrimental. I claim that stock manipulation often facilitates market efficiency and benefits uninformed traders; in such cases, it does not constitute fraud. Hence, even if courts were able to distinguish between a manipulative scheme and an honest investment, it would still not be clear whether a ban on all types of stock manipulation would be warranted.

The first part of the paper elaborates on the beneficial aspects of stock manipulation. The second part offers an empirical study that attempts to test whether stock manipulation is socially beneficial or harmful.

I. AN ALTERNATIVE APPROACH TO STOCK MANIPULATION: MANIPULATION AS A FORM OF COMMUNICATION

In this paper, manipulation is treated as a medium of communication between manipulators and markets. Manipulators, by definition, do not trade for investment purposes; rather, they place bids in the market for the purpose of sending a signal, a means of conveying information to the market. Thus, any inquiry into the fraudulent nature of a manipulative scheme must address two questions. The first question is whether the signal the manipulator sends is real or false—wash sales, for example, do not transfer shares from one trader to another and thus are false signals. The second question is whether the information conveyed by the signal is genuine—actual trades are authentic signals, but they may nonetheless convey false information, in which case they may be considered fraudulent. However, I argue that when these two questions can be answered in the affirmative—namely, the scheme involves real signals that convey truthful information—such a scheme should not be treated as fraud.

In other words, I distinguish between informed and uninformed manipulators. Both types of manipulators trade for the purpose of affecting the market price. But informed manipulators are privy to private information that leads them to believe that the market has mispriced the stock and that their effect on the market will better reflect the stock's value.

The claim that trades serve as signals is not a novel one. Scholars and regulators acknowledged long ago that underwriters use stabilizing bids and firms repurchase shares as a means of conveying private information. I extend this argument to suggest that other market participants may also be in possession of private information and that stock manipulation may enable them to convey this information most effectively. I call such informed players "manipulators" rather than investors, because the purpose of their

trades is not to expand (or curtail) their investment in the firm but, rather, to raise (or depress) its market price.

Under this approach, therefore, manipulators, like investors, may either be informed or uninformed. From the market's point of view, an uninformed trade is disruptive, whether it is undertaken by a manipulator or by a liquidity/noise trader.⁶ An informed bid, on the other hand, whether placed by an investor or by a manipulator, does not mislead price-takers. In fact, uninformed traders would rather trade with informed manipulators than with informed investors—unlike insiders or other informed investors, who typically try to cloak their information and purchase stock at the lowest price available, informed manipulators try to purchase stock at a higher price. Uninformed sellers, therefore, lose when they trade with informed investors and gain when they trade against informed manipulators.⁷ For the same reason, informed manipulators, more so than informed investors, are conducive to

6 The fact that it is disruptive does not necessarily mean that it should be considered illegal. Noise traders, for example, are usually regarded as irrational, and thus there is no point in punishing them. Furthermore, punishing noise or liquidity trades would significantly reduce liquidity in the market. Punishing uninformed manipulators would not produce such costs because (a) uninformed manipulators are rational and (b) punishing them would probably improve liquidity. Still, subjecting uninformed manipulators to criminal sanctions would be costly if the likelihood were high that the enforcement agencies would confuse uninformed manipulators with harmless traders.

7 *But see* Bernard S. Black, *The Legal and Institutional Preconditions for Strong Securities Markets*, 48 UCLA L. Rev. 781, 798 n.22 (2001) (criticizing an earlier draft of this paper):

For Yadlin, it is fine for General Motors to sell shares of Fisher Body in the market, for the purpose of depressing the trading price so that General Motors can acquire all of Fisher Body at a lower price, as long as the managers of General Motors believe that Fisher Body's standalone value is lower than its market price. The problem is that in any successful manipulation, including those that Yadlin likes, informed investors profit and uninformed investors lose. Uninformed investing becomes less profitable, which increases the information asymmetry discount that investors apply to all shares.

Black's criticism misses the following point. If, indeed, due to GM's scheme, the market price is a better reflection of Fisher Body's value (*see infra* note 8), then Fisher Body's shareholders will be selling their shares at a fairer price than the pre-manipulation price. The fact that the price at which they will sell will be lower than the pre-manipulation price does not make them poorer than they would have been absent the manipulation. The manipulation simply revealed to them sooner, rather than later, the real value of Fisher Body. Moreover, had it not undertaken this scheme, GM might have decided not to purchase Fisher Body at all, in which case Fisher's shareholders might have sustained greater loss.

market efficiency: whereas informed investors inject their information into the market slowly, the market responds instantly to informed manipulations.

A. First Objection: Informed Manipulation Is Irrational

Advocates of the traditional, SEC approach to stock manipulation do not deny that trades may inform the market. In their view, however, a manipulator's signal is, by definition, misleading. A rational informed agent will not engage in manipulation, as he is better off purchasing the firm's stock at the lowest price possible and holding it until the market absorbs the relevant information. Hence, under this approach, the mere fact that the goal of the manipulator is to raise prices indicates that he is not informed.

This objection to the alternative, informed-manipulation approach relies, at least implicitly, on the assumptions of the Capital Asset Pricing Model. Indeed, if players hold the market portfolio and can lend money and borrow money at the same interest rates, there is no reason for any informed agent to try to affect the market price. But in the real world, some players are not so well diversified and the interest rate for borrowers is higher than that available to lenders. Thus, risk and liquidity constraints may force some players to make a move that runs against the information in their possession.

Consider again the GM-Fisher deal. In that instance, there were exogenous factors, unrelated to Fisher's market price, that brought pressure to bear on GM to close the merger with Fisher as soon as possible. This fact alone does not rule out the possibility that Fisher's stock was trading at a premium or that GM genuinely believed that it was. Indeed, it is quite conceivable that GM's controlling position in (and business relations with) Fisher gave GM access to private information. It is reasonable to assume, therefore, that GM's plan was not necessarily to mislead Fisher's shareholders; the plan might have been designed, as GM's President explained in a private letter, to "bring the market [for Fisher's shares] more in harmony with the equities."⁸

The Boesky case raises similar possibilities. Boesky probably did not hold a well-diversified portfolio, and this position pressured him into liquidating his disproportional investment in G&W. Hence, I agree with Steve Thel's claim that Boesky's conduct was inconsistent with an intention to invest in G&W.⁹ But this fact alone does not negate the possibility that Boesky was privy to information that led him to believe that G&W was trading at a discount.¹⁰

8 Letter from A.P. Sloan, *supra* note 1.

9 Thel, *supra* note 5.

10 In fact, the government alleged that Boesky and Ichan had agreed that \$45 per share was a reasonable price for their stock and that Boesky might simply have been

It may be the case that the disproportional risk he was exposed to in G&W forced him to liquidate his position despite his belief that G&W was trading at a discount. After signing the deal with G&W, he had to act quickly to convey his private information to the market, and he used Mulheren's bids to this end. Had, in fact, Boesky been informed, then his scheme would have had no disruptive effect on the market. Similarly, if based on information, Boesky's scheme was not unfair to G&W. G&W and Boesky had agreed to rely on the market price because it provides the best mechanism for aggregating all traders' opinions regarding the value of G&W stock, and there is no reason to believe that the parties sought to exclude their own opinions from this aggregation mechanism.

U.S. v. Regan provides a good example of an informed manipulation scheme.¹¹ In this case, the government brought irrefutable evidence to demonstrate that Drexel had intentionally depressed the market for C.O.M.B. stock. The motive behind the scheme was also clear: Drexel had been hired by C.O.M.B. to underwrite its forthcoming public offering, and Drexel believed a market decline would convince C.O.M.B. to lower its offering price. While the evidence of Drexel's manipulative intent was clear, it was just as clear that Drexel had thought C.O.M.B. was being traded at a premium. In fact, Drexel had reason to believe that C.O.M.B. itself was inflating its market price and tried to respond in kind. Now, clearly, if Drexel were a fiduciary of C.O.M.B., then such manipulation might constitute a breach of Drexel's fiduciary duty.¹² But that has nothing to do with the question of whether Drexel's scheme was fraudulent vis-à-vis the market.

We may conclude, therefore, that there are circumstances in which informed players cannot take advantage of their private information or superior analytical tools through investment. Whereas the information in

embarrassed to sell for less. Naturally, Thel views this conversation between Ichan and Boesky as evidence of Boesky's incentive to bid up the G&W price: according to Thel, Boesky was not only acting on his own behalf but also as an agent for Ichan, and it would have hurt his reputation to sell for less than what they had agreed on as a reasonable price. *Id.* at 254. However, this anecdote also lends support to the view that Boesky (and Ichan) genuinely believed that \$45 was a reasonable price for G&W shares.

11 *U.S. v. Regan*, 937 F.2d 823 (2d Cir. 1991).

12 Strong arguments can be made for why an underwriter should not be considered a fiduciary of the issuer. Mainly, the more duties the law imposes on the underwriter vis-à-vis the issuer, the less the underwriter is capable of providing the service for which he has been hired by the issuer, i.e., to look after the interests of investors. Paradoxically, therefore, it is in the issuer's best interest (*ex ante*) that the underwriter not be subject to such a fiduciary duty.

their possession induces them to buy (or sell) shares, liquidity and risk constraints force them to sell (or buy). One way for such players to "exploit" their advantageous position is by manipulating the market. Before they make the constrained move, informed manipulators try to push the market price up or down to the appropriate level.¹³

B. The "Mere Coincidence" Objection

Thus far, I have shown why informed investors might engage in manipulation instead of investment. Critics, however, would argue that it is all mere coincidence. "Even paranoids have enemies,"¹⁴ and the fact that real enemies persecute them does not render them less paranoid. Similarly, critics would argue that the fact that incidentally and unrelated to their schemes, manipulators may be informed does not mean that such manipulators should not be prosecuted for fraud.

However, the distinction between paranoia and manipulation is obvious. Psychotherapists treat paranoids regardless of whether or not they are coincidentally stalked by an enemy. The market, on the other hand, punishes manipulators that have been identified as uninformed and rewards the informed ones. True information makes for better manipulators; it does not

13 Consider the following analogy from the art market. An art collector purchases paintings of an unknown young artist. The art collector has faith in the artistic value of the paintings and in the market's eventual recognition of the artist's talent. After purchasing the paintings, the collector realizes he has exposed himself to significant risk: a large portion of his retirement savings is invested in this one artist, and the market has yet to recognize the artist's talent. The collector decides to take action. First, he persuades the artist to place one of his paintings on auction on the Internet. Then, despite the fact that the collector is not interested in expanding his collection of the artist's paintings, he places a very high bid on the auctioned painting, much higher than the lowest price for which he could win the painting in the bidding. The sole purpose of this bid is to raise the market price of the artist's paintings, with the hope that this move will enable the collector to sell all his paintings at the new price level. This is clearly manipulative behavior: the collector is not waiting until the market prices the paintings appropriately, but rather, he is twisting the market's invisible hand to the point where it cannot avoid noticing the artist. However, it is also clear that once the market has noticed the artist, the market may disagree with the collector's opinion, in which case, his scheme will fail. Hence, the collector faces a major risk, which increases if his information is false. The collector's scheme cannot be considered fraudulent, because the signal he has sent is truthful and the content of the signal is genuine.

14 *See Even Paranoids Have Enemies—New Perspectives on Paranoia and Persecution* (Joseph H. Berke et al. eds., 1998).

make for "better" paranoids. For manipulators, therefore, being informed is germane to the success of their operations.

To see how information can support a manipulative scheme, one must understand the manipulative process and recognize the risks the manipulator faces. At the first stage, the manipulator purchases shares at an above-the-market price. The bids the manipulator places affect the market price because other market participants suspect that the manipulator is informed. At the same time, the market also is aware of the possibility that the trading signal might be a hoax. This uncertainty offers arbitrageurs an opportunity for profit: the first to correctly decode the trading signal will be able to buy (in the event that the information the signal conveys is truthful) or sell (in the event that it is a hoax) at a profit. Thus, the price fluctuation generated by the manipulation attracts analyst attention and induces the market to reexamine the prospects of the firm and update its evaluation of the stock value. Hence, if the manipulation is not based on information, the manipulator faces a higher risk of the market's reexamination process revealing the falsity of the signal before he completes the constrained transaction. In such an event, the manipulator will not be able to recoup the loss he suffers from the inflationary bids.¹⁵

C. Third Objection: Informed Players Can Resort to Other Means

Another objection that can be raised against the informed manipulation argument is that informed players can affect the market by other means, less expensive ones. The simplest would be to communicate the information to the market. Consider again the GM-Fisher case. Instead of manipulating Fisher's price, GM could have communicated its private information verbally. If this alternative were available, why should GM's directors have considered the more costly strategy of dumping the market? Arguably, the reason is simply that GM was not really informed.

15 GM's investment bankers have phrased this argument differently. Although "the downtown people" agreed that "a price such as ... [GM] indicated, ... would be eminently fair price in the interest of Fisher Body stockholders..." they have also felt that it would be not unlikely that in the final workout there would be some dissenting stockholder and that very strong ammunition would be put in the hands of any stockholder who did not assent to the sale of the assets by his ability to point out that as a preliminary step General Motors Corporation had manipulated the market so as to establish prices in line with the terms of the purchase price offer.

Letter from F.D. Brown, *supra* note 1.

Indeed, not every informed trader, subject to liquidity or risk constraints, will use a manipulative scheme. Informed players will opt for the manipulation strategy only if they cannot communicate verbally with the market. An implicit premise of the alternative, informed-manipulation approach is that manipulation may occasionally be the most effective way to communicate information.¹⁶

One explanation for why verbal disclosure cannot always be a substitute for trading is that very often "talk" is considered "cheap" and unreliable. Being aware of GM's interest in the merger, the market might not have given credit to a public statement in which GM recommends selling Fisher's shares. On the other hand, the fact that GM sold Fisher's shares at a lower price suggests that GM puts its money where its mouth is. Thus, the market is likely to give more credit to GM's selling orders than to its public statements.

Another explanation is that informed players resort to manipulation because sometimes talk is too expensive. Consider the Drexel-C.O.M.B. case. A public statement by Drexel, C.O.M.B.'s underwriter, to the effect that C.O.M.B. is trading at a premium would probably be credible and trigger a corresponding decline in the C.O.M.B. share price, but it would clearly infuriate C.O.M.B. and harm Drexel's reputation with potential issuers. Dumping the market was probably the only viable way for Drexel to convey its private information. In other words, many players value privacy, and manipulation protects this privacy better than a public statement.

Exposure of the speaker's identity may be costly for other reasons too. Since the private information involved is typically "soft" and forward-looking, an informed party may be right at best on average. Thus, a public statement exposes the speaker to significant risks to his or her reputation. It might also expose the speaker to significant legal risks. Just as the government took offense to the fact that Boesky had manipulated G&W's stock price, it is very likely that Boesky would have been charged with fraud had he forced an uptick in the G&W share price by releasing a favorable earning forecast.

We may conclude, therefore, that the "talk" alternative is not always available and is sometimes ineffective. It is in such cases that the manipulation strategy becomes attractive.

16 This premise is crucial for two reasons. First, if manipulators can communicate their private information verbally, then the fact that they chose the costly signal of manipulation may suggest that they were not informed. Second, if other communication channels are available, then no social costs are generated by the deterrence of informed manipulation.

D. Fourth Objection: The Inability to Tell Right from Wrong

The normative implication of the discussion so far may seem to be that the government should ban only uninformed manipulators. Consequently, the prospect of being prosecuted would increase the risk in (already-risky) uninformed manipulative schemes, fewer uninformed schemes will be attempted, and informed manipulations will gain credibility and be more instrumental to market efficiency.

The problem, of course, is that it is very difficult to distinguish good, informed manipulation from bad, uninformed manipulation, probably more difficult than differentiating between manipulation (informed or uninformed) and investment. Steve Thel, for example, has suggested that prosecutors often can show that the defendant's trading patterns were not designed to purchase stock at the lowest price possible and, on that basis, courts can conclude that the defendant's trades were not oriented toward investment.¹⁷ But even such evidence cannot assist in differentiating between informed and uninformed manipulative schemes, both of which are aimed at raising the market price rather than purchasing at the lowest price available. Thus, very rarely will a fact-finder be able to determine whether or not a particular scheme was based on information.

One way the law can tackle this problem is to shift the burden of proof from the prosecution to the defendant. Once the government has brought evidence to show that the defendant manipulated the market, the defendant will bear the burden of showing that his scheme was based on information. This allocation of burdens is appealing—the defendant probably has better access to evidence concerning his motives for engaging in the manipulative scheme. The problem with shifting the burden of proof is that defendants, even though informed, often would not be able to establish such a defense. Their main obstacle would be that often, courts would not give credit to the information they rely on. Typically, it will be the manipulator's better analytical skills or better acquaintance with the firm that enables him or her to come up with a better evaluation of the firm's share price. Moreover, sometimes the advantageous position will be based on the manipulator's better comprehension of his or her motives for engaging in the constrained deal. For example, the market may have believed that GM's initiative to merge with Fisher implied that Fisher was trading at a discount, and thus, the mere fact that GM was contemplating such a merger may have caused a rise in Fisher's market price. However, GM may know that the motive

17 Thel, *supra* note 5, at 298.

behind this vertical integration was to reduce transaction costs. Hence, GM knows that the market overreacted to rumors about GM's interest in taking over Fisher. Clearly, had GM attempted to mitigate this overreaction by depressing the market price, it would find it almost impossible to prove that it had been in possession of private information.

Whether the burden of proof is placed on the plaintiff or on the defendant, such proof would probably rest on circumstantial evidence. One factor that may help determine whether the scheme was based on information is the time-lapse between the effect on the market price and the manipulator's attempt to reap profits from the scheme. A comparison between GM's and Boesky's schemes may be helpful here. GM's directors knew that the time-lapse between their bid and shareholder approval of the deal would be a matter of weeks, long enough to enable the market to investigate the matter carefully. Hence, the risk that the truth would emerge before the closure of the deal was relatively high. In Boesky's case, on the other hand, the time-lapse between Mulheren's bid and the execution of the greenmail deal was a matter of seconds, so quick that Boesky knew that it was highly unlikely that the truth would be revealed in the interim. Thus, in a Boesky-type of scheme, a pooling equilibrium is likely to arise: both informed and uninformed manipulative schemes are likely to be successful. This certainly does not rule out the possibility that Boesky was in fact informed. But it does suggest that whether or not Boesky was informed does not make much of a difference in terms of the risk involved in his scheme, and the probability of a manipulator being informed is higher in the GM-type of case than in Boesky's type of scheme.

E. Intermediate Conclusion

In this Part, I have shown that rational informed players are sometimes unable to invest and can take advantage of their information only by resorting to manipulative trades. Such informed manipulations, I suggest, contribute to market efficiency and do not harm uninformed investors. Although I believe this argument to be convincing in theory, it remains unclear whether and to what extent regulators can distinguish between informed and uninformed manipulations. If they cannot and good manipulations are more prevalent than bad manipulations, then regulators should follow Fischel & Ross' advice and refrain completely from regulating stock manipulation. If, however, the harm generated by bad manipulations is greater than the benefits produced by the good ones and the good manipulations cannot be filtered out,¹⁸ then

18 I have already suggested one distinguishing factor—the time-lapse between the

all manipulations should be banned. These are (mainly) empirical questions, which are addressed in Part II below.

II. AN EMPIRICAL STUDY OF STOCK MANIPULATION

This Part presents an empirical study of stock manipulation. Looking at the long-run performance of manipulated shares traded on the Tel Aviv Stock Exchange ("TASE"), I test the traditional hypothesis as put forth in dozens of indictments brought by the Israeli Securities Agency ("ISA"), namely, that these schemes were disruptive to the efficient functioning of the stock market.

The first section of this Part provides an overview of the law of stock manipulation in Israel. The second section describes the database for the empirical study. The third section explains the study's methodology, and the fourth and fifth sections present the results.

A. The Law of Stock Manipulation in Israel

The Israeli Securities Law of 1968 does not explicitly prohibit stock manipulation. Section 54 of the Act, entitled "Fraud in connection with securities," makes it an offense to affect the market rate by fraudulent means.¹⁹ Thus, the state's prosecutory power with regard to stock manipulation is conditioned on the scheme being fraudulent.

The first stock manipulation case in Israel was brought in the late 1970s in *Levinkof*.²⁰ The state lost this case because the court was not persuaded that Levinkof's scheme had been fraudulent. One interpretation of the *Levinkof* holding is that it adopts the Fischel & Ross approach that real transactions can never constitute fraud. Although this is not the only conceivable interpretation of *Levinkof*, it is quite clear that this case discouraged the ISA from further prosecuting manipulative schemes. The consensus among practitioners in this field was that since the ISA had failed to convict in such a clear-cut case of manipulative intent, it would fail in all other stock manipulation cases.

Attitudes began to shift following the Israeli market crash of 1982. First,

manipulative effect on the market and the deal by which the manipulator strives to profit from this effect. In the next Part, I propose another factor: market liquidity.

19 Securities Law, 1968, 22 L.S.I. 266, 280 (1967-68).

20 Cr.C. (T.A.) 352/79, *State of Israel v. Levinkof*, 1980(2) P.M. 221.

a new sheriff came to town in the form of the new head of the Israel Securities Agency, and the Agency's budget and staff (and staff salaries) were increased significantly. In addition, since the common understanding was that the 1982 crash had been the product of market manipulation, public opinion regarding this offense changed dramatically. As a result, beginning in 1990, the state brought dozens of stock manipulation charges. Some of these cases are still being litigated, but among those that have been decided, there is no single case in which the defendant has been acquitted.²¹ One explanation for this trend is the court's willingness to lower the standards of fault required to establish this offense. The current case law is clearly closer to Thel's view than to that of Fischel & Ross.

B. The Data

The data for this empirical study consist of all the indictments brought by the Israeli Securities Agency under section 54(a)(2) of the 1968 Securities Law during the last decade, a dozen in number. These indictments pointed to 63 manipulated stocks. I excluded 18 stocks from the study and examined the performance of 45 firms. The reasons for excluding the 18 shares vary. Six shares, all manipulated by the same agent, were excluded because the indictment did not charge the defendant with manipulation as defined in this article, but, rather, with the dissemination of false information. Another indictment I decided to exclude was one in which the data do not match the story as unfolded in the indictment: the four allegedly inflated shares actually experienced a significant negative abnormal return. The other eight stocks were excluded for a variety of technical reasons; for example, in cases where the state had charged the defendant with manipulating two securities issued by the same firm, I picked only one of the shares. In any case, it is important to note that the exclusion of these eighteen shares did not affect the qualitative results; it merely reduced the significance of my findings.

Although each manipulation in the database has its own unique characteristics, the forty-five stories the ISA tells share some common features. First, in all the cases examined in this study, the defendant had

21 The same is true with regard to other charges brought by the Israel Securities Agency. In fact, among the several cases that were prosecuted, only one case (of insider trading) ended in an acquittal. Cr.C. 7576/92, *State of Israel v. Helfman* (unpublished). In this case, the Agency argued that an insider who passes on inside information to a broker violates the prohibition on insider trading even if the broker does not take advantage of the information. Although the Agency lost this case, it still won points because the court accepted its legal theory.

engaged in actual trades. Second, in all of the cases, the allegations were that the defendant's bids had inflated (or prevented a decline in) the stock price. The manipulators used one of two types of strategies to reduce the risk and increase the profitability of the manipulation: one, the offsetting trade scheme, and the other, front-running.

1. The Offsetting Trade Scheme

Some of the indictments asserted that the defendant had inflated the market price before contemplating selling a block of shares outside the market. The *Tempo* case²² is illustrative of this type of claim. As with many other firms listed on the TASE, most of Tempo's shares were held by one person, the controlling shareholder. In 1991, Tempo was contemplating a seasoned public offering, and it reached an understanding with a lead-underwriter on the terms of the deal. However, as is very often the case, after the firm announced its intentions to issue more shares, the market price suffered a sharp decline. Tempo feared that this decline would continue and would force it to lower its offering price. To contend with this problem, the controlling shareholder decided to stabilize the market for Tempo stock. For about six weeks, he placed bids that absorbed the excess supply in the market and prevented any further drop in the market price.

The Agency brought quite conclusive evidence, based mainly on the defendant's own admissions, that the controlling shareholder had intentionally manipulated the market. It was clear that he had had no interest in increasing his holdings in Tempo. Furthermore, it also was clear that the defendant could have purchased the shares at a lower price and that the sole goal of his purchases had been to affect the market price. His motive was just as clear: the scheme was designed to enable Tempo to offer its stock at a higher price. The court found this sufficient evidence to convict him of fraud under section 54 of the Securities Law.

The *Tempo* case is noteworthy because the defendant based his defense on the signaling theory and the court was willing to consider it.²³ The bad news about this case, for both the defense and the signaling theory, is that the court clearly misunderstood the theory. Relying on the defendant's testimony

²² Cr.C. (T.A.) 5470/92, *State of Israel v. Levinhar* (unpublished).

²³ The defense relied mainly on a paper I wrote in Hebrew, *The Maximum Price Puzzle and Its (Temporary) Solution*, 19 *Iyunei Mishpat* [Tel Aviv L. Rev.] 91 (1994). This article was published a few months before the case was litigated, and it discusses the way in which the public-offering process in the U.S., England, and Israel is designed to solve asymmetric information problems.

that he had placed the bids for the purpose of promoting the offering, the court concluded that the defendant had no intention of conveying any signal.²⁴

2. *Front-Running*

The front-running type of scheme dominates the fact patterns of the cases examined in this study. Although only two indictments made allegations of such a pattern, in the one, the defendants were charged with the manipulation of twenty-nine shares, and in the other, the state claimed that the defendant had manipulated six shares. In this type of case, the defendant typically is a money manager who uses his beneficiaries' accounts to manipulate the market. The scheme usually begins when the fiduciary purchases ABC shares for his own personal account. Then, using his clients' funds, he bids up the ABC share price. The final stage is, of course, when the fiduciary liquidates his position in ABC at the inflated market price.

Very few would dispute the illegality of this scheme. If, indeed, the defendant had reason to believe that ABC was trading at a discount, he should have purchased the stock quietly for his clients' accounts at the lowest price possible. The mere fact that a fiduciary does not make the best effort to maximize his clients' profits and fails to disclose his conflict of interests seems to constitute fraud of the clients. But for some peculiar reason, the ISA has insisted on proving that this pattern is not only a scheme designed to defraud clients, but that it also constitutes an "effect on market rate by fraudulent means," in violation of section 54(a)(2) of the 1968 Securities Law.²⁵

Arguably, the Agency's approach is quite plausible. The fiduciary using the front-running strategy is not risking his own money and, therefore, is likely to profit whether he is informed or not. Thus, there seems to be no reason for such a manipulator to focus his manipulative efforts on discounted shares. But this approach ignores the position of the fiduciary-manipulator in the market and the risks he faces.

To see why this type of scheme is also likely to be based on information, we must first consider the fact that these money managers are typically

24 It is interesting to note that a class action that was brought against Tempo and its controlling shareholder on the basis of exactly the same allegations was dismissed because the plaintiffs could not point to any loss they had suffered from the transaction.

25 Rent seeking may be one explanation for the Agency's insistence on making this charge: if it is "regular" fraud, there is no particular reason for the Agency to be involved—the police can deal with it. The more securities fraud cases are exposed, the higher the budget the Agency will be able to demand.

highly sophisticated and very often privy to confidential information. They are in personal daily contact with firms' insiders, and more importantly, they are privy to information about other people's investment plans. In addition, it is quite reasonable to assume that these money managers would prefer to inflate a stock trading at a discount than one trading at value. Such a move would increase the likelihood of the scheme's success and decrease the potential loss to the manipulator's clients. Thus, it also would reduce the manipulator's legal and reputational risks.

C. Methodology

The empirical study treats the ISA and the defendant-manipulator as competing analysts who publish their forecasts. One analyst—the Agency—recommends a "hold" at the pre-manipulation market price and suggests that this price is the best estimate for the stock's future performance. The Agency believes that the post-manipulation price is inflated and thus recommends a "sell" at that price. The other analyst—the manipulator—claims that the stock is being traded at a discount and recommends a "buy" at the pre-manipulation price. He considers the post-manipulation price as the appropriate price for the firm's stock and recommends a "hold" at that price.

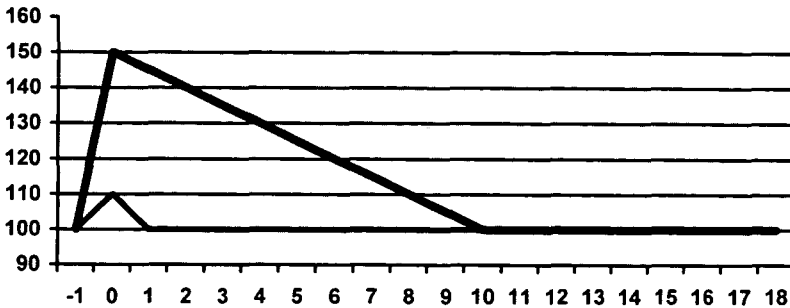
Many studies have been conducted to test analysts' ability to beat the market, comparing the long-run performance of shares they recommend with the long-run performance of a benchmark portfolio composed of comparable shares. The expectation is that if analysts' predictions are of any value, their recommended shares, on average, will outperform the benchmark portfolio.²⁶ The study presented in this paper uses a similar methodology. I compared the long-run performance (eighteen months) of a portfolio of the forty-five manipulated shares with that of a comparable benchmark portfolio. The Agency's hypothesis anticipates that an investment in the manipulated portfolio at the pre-manipulation rate should yield, in the long run, a zero abnormal return. In contrast, according to the alternative, informed-manipulation thesis, some stock manipulations are driven by information and thus it can be expected that the abnormal return on the portfolio of manipulated shares will be positive.

The more efficient and liquid the market is, the faster we can expect it

²⁶ Surprisingly, but in line with the efficient capital market hypothesis, most of these studies have found that it is impossible to disprove the claim that the abnormal return of analysts' recommended shares is actually zero.

to neutralize the disruptive effect of an uninformed manipulation. The less efficient and liquid the market, the longer it will take the market to correct itself. Graph 1 below presents an ideal schematic sketch of the abnormal return on a portfolio of manipulated shares as a function of market efficiency, according to the Agency's forecast.

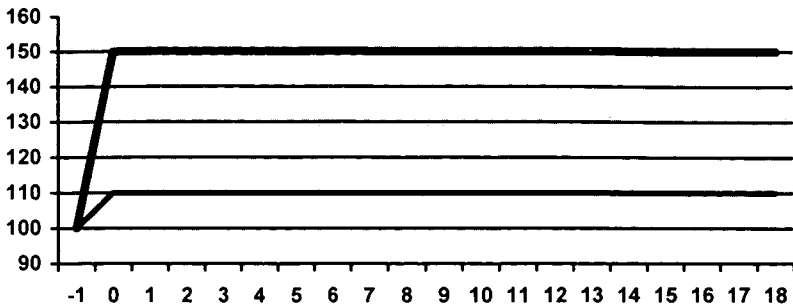
Graph 1



The horizontal axis in Graph 1 represents the timeline: the period from (-1) to 0 is the manipulation period, which may last anywhere from one day to a few months. The period from 0 to 1 is the first month (the first 21 days of trade) after the end of the manipulation period; 1 to 2 is the second month; and so on, until the passage of 18 months from the end of the manipulation period. The vertical axis represents stock rates—I define 100 to be the rate at which all manipulations begin. The thin and thick black lines present two typical results that would support the Agency's hypothesis. The thin line represents the anticipated performance of the manipulated portfolio in an efficient market. The thick line represents a less efficient market; hence, the inflationary effect is expected to be more significant. In a less efficient market, we also would expect a longer time-lapse until the effect of the manipulation on the market price evaporates. I assume that eighteen months is a long enough interval to allow even the most inefficient of markets to neutralize the bad effects of manipulation.²⁷

In an ideal world, from this article's perspective, all manipulations would be based on information. Graph 2 presents the portfolio's performance in such an ideal world.

²⁷ Arguably, if the market is so inefficient that it takes more than eighteen months to neutralize a manipulative scheme, some doubt can be cast as to whether prices in such a market are of any value deserving of protection from manipulation.

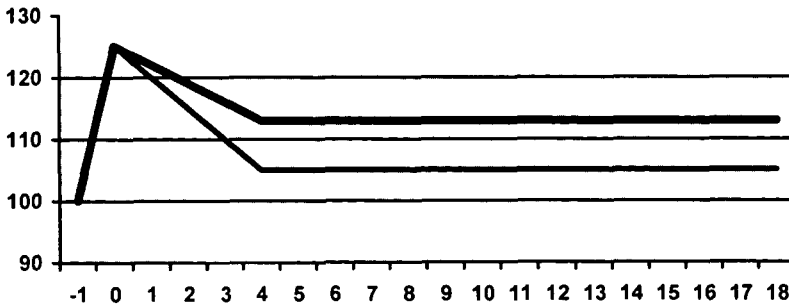
Graph 2

Again, if the manipulated shares were to trade in a very inefficient market (thick line), we would expect to find a stronger inflationary effect than if the market were efficient (thin line). With regard to the post-manipulation performance: since, in this ideal world, all manipulations are based on information, we would expect the inflated rate to provide the best estimate for future performance, and thus after the manipulation, the market price would remain at the inflated level.

However, Graph 2 takes this article's thesis to an extreme. First, even if all the manipulations were based on a manipulator's genuine belief that the stock is trading at a discount, we could not expect these manipulators to beat the market consistently. Thus, we should expect the market price, after the manipulation, to stabilize midway between the pre-manipulation market price and the post-manipulation price. A better performance than that would imply not only that these manipulators are all of the opinion that the firm is trading at a discount, but also that they are more capable than the average market analyst is. Moreover, this article does not deny the possibility that some, maybe most, manipulations are fraudulent. At best, therefore, the article anticipates that the abnormal return will be positive. Hence, any finding that allows us to reject the Agency's hypothesis will lend support to the hypothesis presented in this article.

Graph 3 below provides a more realistic picture of the performance of the portfolio anticipated by this article's approach.

Graph 3

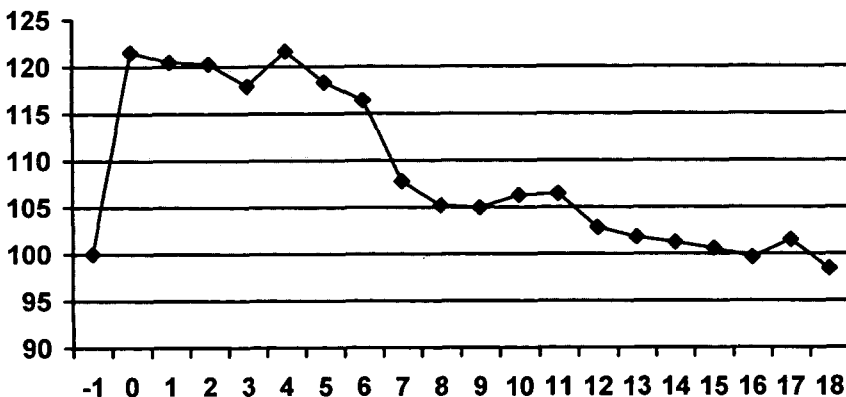


Graph 3 assumes the market efficiency level to be somewhere between the two levels presented in the preceding graphs. The thick line represents the anticipated long-run performance of the portfolio of manipulated shares if all the manipulators genuinely believe that they are informed, but their analytical skills are just as good as the rest of the analysts in the market. The thin line represents the anticipated performance if less than half the manipulators are basing their schemes on such a genuine belief.

D. Results

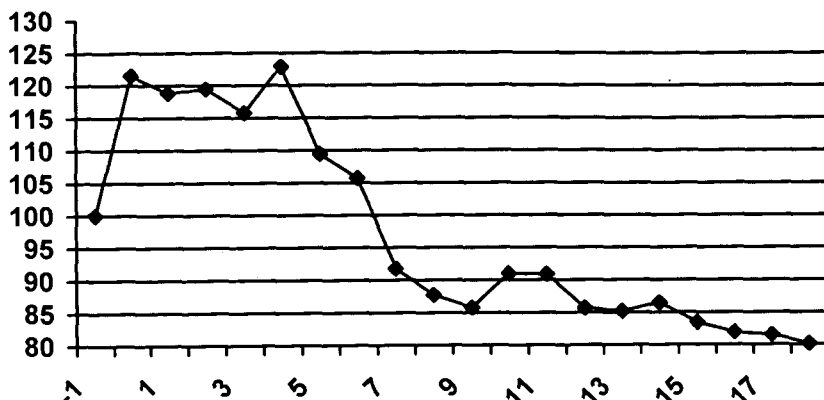
The graphs below present the long-run performance of the portfolio of manipulated shares using the Cumulative Abnormal Returns ("CAR") and the Buy and Hold methods.²⁸

Graph 4: Cumulative Abnormal Return



28 For an analysis of the pros and cons of each of these methods for measuring long-run performance, see John D. Lyon et al., *Improved Methods for Tests of Long Run Abnormal Returns*, 54 J. Fin. 165 (1999).

Graph 5
Buy and Hold



In both methods for calculating long-run performance, the results support the Agency's story. Clearly, these graphs do not provide the basis for rejecting the Agency's hypothesis. In Graph 4, which uses the CAR method, the portfolio remains at the post-manipulation rate for about six months, starts to decline at the seventh month, and towards the end of the eighteen-month period, it returns to the pre-manipulation rate. With the Buy and Hold method, the portfolio of manipulated shares remains at the post-manipulation rate for only four months, and from the sixth month onward, it runs below the pre-manipulation rate.²⁹

²⁹ The CAR method simulates the following investment strategy: At the beginning of the first period (the manipulation period in our case), we invest \$1 in each share and hedge it by selling the comparable index short. At the end of the first period, we rebalance the portfolio: we sell all our investments and reinvest the proceeds by dividing them equally among all the manipulated shares (and, of course, hedge it by selling the index short). We repeat this "rebalancing" procedure at the end of each month until the end of the eighteenth month. The rationale for this procedure is that it preserves the equal weights of the shares in the portfolio. Thus, this method seems appropriate for testing the hypothesis that the post-manipulation price provides the best estimate of the portfolio's value.

Under the Buy and Hold method, on the other hand, at the beginning of the manipulation period, we invest \$1 in each share, hedge it by selling the comparable index short, and hold this investment for the whole eighteen-month period. Thus, this method seems more reasonable for testing the Agency's claim that the pre-manipulation prices are more reflective of the portfolio's value.

But one should be very careful not to draw strong conclusions from these graphs in support of the Agency's approach. The main reason one should be wary of these results is that the study could be biased in favor of the Agency's hypothesis. This bias would stem from two main sources.

First, one of the most troubling aspects of this study is that it relies blindly on the Agency's choice of cases to prosecute. One method the Israeli Securities Agency uses to detect manipulative practices is to follow the market. An unexplained fluctuation in the market would attract Agency attention and trigger an investigation. Such a selection process might screen out manipulative schemes that eventually turn out to be justified on their merits and pick only schemes with a negative long-run abnormal return. Clearly, this is not the only indicator the Agency uses to pick out cases, but a bias still may emerge if market performance is included amongst those indicators.

A second source of bias may lie in the mere decision to investigate a case. The fact that the Agency investigates a suspicion of stock manipulation, arrests the suspect, or brings an indictment may affect the market price of the (allegedly manipulated) share. In other words, the Agency's decision to prosecute a case may have a corresponding effect on the market, which, in turn, "proves" the Agency's point. Such an effect on the market price will clearly take place when the party accused of manipulating the market price is the firm itself, a potential bidder, or a market maker. For example, in one of the cases I examined for this study, the market price of the firm under investigation dropped 68% in one day and a financial columnist attributed the decline to rumors that the firm's controlling shareholder had been arrested by the Agency on suspicion of stock manipulation. One way to explain this drop is that the market trusts the Agency's "recommendation" and infers from the arrest that the firm is trading at a premium. From the perspective of the empirical study, such a drop is clearly "legitimate" and does not create any bias because it suggests that the Agency helped the market to reveal the "truth." The second explanation is that the market anticipates that the investigation will reduce significantly the ability of the suspect to run the firm, and thus the firm's performance will likely be lower than anticipated. If this is the reason for the drop in the market price, then it enables the Agency to "prove" its point, regardless of whether the manipulation was actually informed or not. Given the fact that almost all the Agency's investigations have started prior to the end of the eighteen-month period this study looks at, it seems that this bias is not negligible.

E. The Effect of Market Liquidity

As explained earlier, the more liquid the market, the harder it is for the manipulator to affect the price, and thus the manipulative scheme requires greater investment. Moreover, the more liquid the market, the more rapidly we should expect the market to correct itself. For these two reasons, uninformed manipulation of a share trading in a liquid market is probably more risky than an uninformed manipulation of an illiquid stock.

Based on the above analysis we can make two predictions. First, we can predict that the more liquid the market for a certain stock, the lower the effect of the manipulative scheme on the market price. Second, the more liquid the market for a certain share, the higher the probability that a scheme designed to manipulate the market for this share is based on information, and thus we should anticipate a lower drop in the market price after the scheme has been completed.³⁰

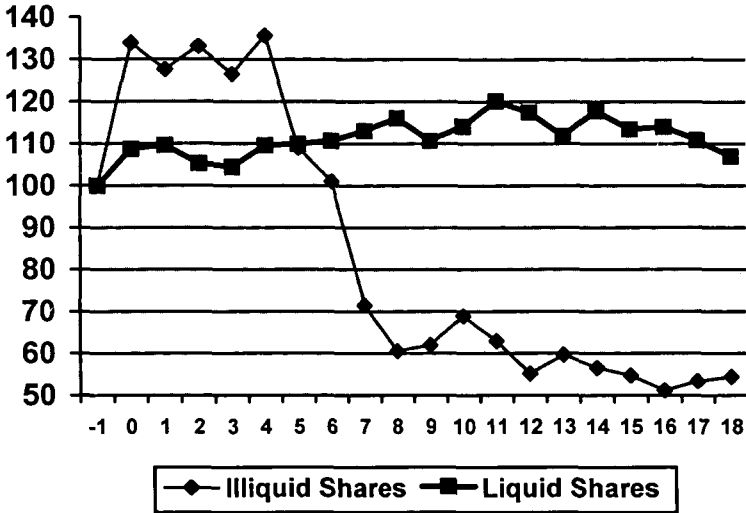
I examine this prediction by dividing the portfolio of manipulated shares into two subgroups according to liquidity. I use two proxies for liquidity. The first proxy is the trading method of each share. The Tel Aviv Stock Exchange uses three trading methods and determines the appropriate trading method for each share according to the liquidity of each stock. The second proxy I use is the *Silver Index* of each stock, as reported by the TASE the month before the manipulation begins.³¹

Graph 6 below presents the performance of the two subgroups of the portfolio, using the Buy and Hold method. Graph 7 presents the performance of the same two subgroups using the CAR method. The table that follows Graph 7 presents the statistical results.

30 On the other hand, one could argue that the more liquid the market, the more likely that the market price reflects the value of the share, and for this reason, it is less likely that anyone would be in a position to second-guess the market.

31 The *Silver Index* measures the elasticity of the demand function for each stock and is computed and reported on a monthly basis by the TASE.

Graph 6
Buy and Hold



Graph 7
CAR

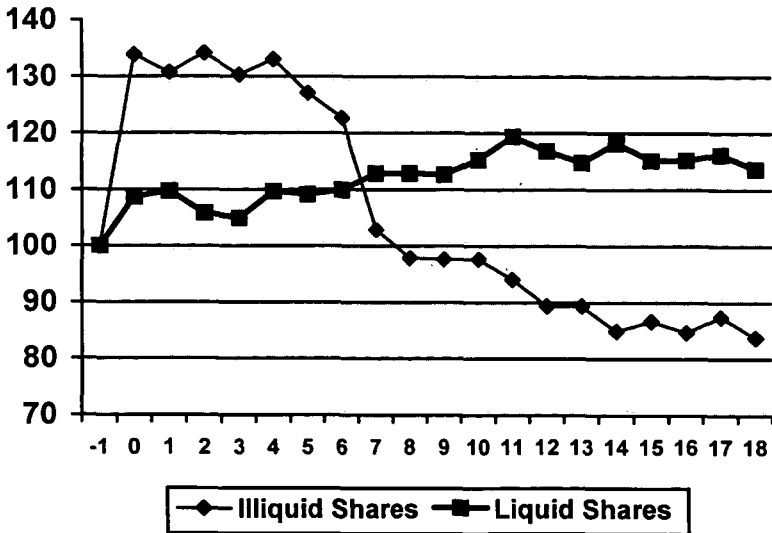


Table 1

Month	Most Liquid Shares				Buy & Hold	Least Liquid Shares		
	Buy & Hold	t-stat	CAR	t-stat		t-stat	CAR	t-stat
0	108.68	3.5458	108.69	3.5478	133.84	2.7676	133.84	2.7675
1	109.57	3.2734	109.78	3.4639	127.6	2.4335	130.76	2.429
2	105.27	1.3791	105.89	1.4235	132.99	2.0055	134.09	2.3173
3	104.45	0.9342	104.99	1.0385	126.54	1.3887	130.31	2.1479
4	109.61	1.5652	109.73	1.873	135.6	1.3208	133.04	2.222
5	109.87	1.2317	109.17	1.4506	109	0.8256	127.09	1.8725
6	110.66	1.387	109.92	1.7207	100.99	0.0799	122.63	1.4777
7	113.07	1.5999	112.86	2.1102	71.4	-1.1132	102.86	0.1275
8	116.11	1.3597	112.87	1.5869	60.56	-1.3516	97.86	-0.0972
9	110.63	1.0556	112.63	1.7361	61.93	-1.391	97.64	-0.1147
10	114.15	1.3761	115.29	1.8242	68.8	-1.3701	97.65	-0.1096
11	120.17	1.6995	119.4	2.2515	62.85	-1.5324	94.03	-0.2777
12	117.54	1.7201	116.8	2.0661	55.19	-2.0919	89.38	-0.5322
13	111.83	1.224	114.78	1.4899	59.63	-1.9658	89.34	-0.4706
14	117.79	1.5552	118.2	1.7866	56.5	-2.2124	84.94	-0.6737
15	113.43	1.3687	115.14	1.5513	54.71	-2.1512	86.66	-0.6089
16	114.04	1.3416	115.27	1.4182	51.13	-2.4362	84.68	-0.7016
17	110.89	1.0155	116.19	1.5908	53.36	-2.0411	87.45	-0.5227
18	107	0.647	113.68	1.2913	54.37	-1.9606	83.79	-0.6657

The above results lend support for both of the above predictions. We can see that the two subgroups of shares experienced a statistically significant rise during the manipulation period. However, the rise of the less liquid subgroup (40.6%) was much more substantial than that of the more liquid subgroup (8.6%).

Looking at the post-manipulation period, the graphs and table suggest that the less liquid segment of the portfolio experienced a substantial decline following the completion of the manipulation. Six months after the end of the manipulation, these stocks returned to their pre-manipulation rate. From the seventh to eighteenth months, the illiquid segment of the portfolio experienced a substantial and significant negative abnormal return.

The liquid segment, on the other hand, experienced a positive abnormal return throughout the entire post-manipulation period. In fact, the post-manipulation abnormal return of this subgroup is even higher than its abnormal return during the manipulation period. In large portions of the post-manipulation period, the abnormal return was substantial and statistically significant.

CONCLUDING REMARKS

The goal of this paper was to provide support for the claim that manipulators are sometimes motivated by private information and that such informed manipulative schemes may actually benefit society and facilitate market efficiency. The first part of the paper explained why it is conceivable that an informed player would choose to inflate the market rather than purchase stock at the lowest price available. The second part presented an empirical study that, I believe, demonstrates that informed manipulation is not only theoretically but also practically conceivable, at least in liquid markets.