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**Is Stock Manipulation Bad?
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Is Stock Manipulation Bad?
A Theoretical Note with an Empirical Support
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Introduction

In March 1926, General Motors (“GM”) sought a strategic merger with Fisher Body (“Fisher”). One major obstacle GM faced was that Fisher’s shares were traded above the price GM considered offering to Fisher’s shareholders. GM knew that Fisher’s shareholders would reject any offer below the market price. To tackle 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 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 deal with G&W was signed, Boesky called Mulheren and asked him to bid up G&W market price. Mulheren’s bids forced an uptick in G&W market price and enriched Boesky by \$850,000.²

Manipulative schemes may take different forms. In this paper I define manipulation as the buying (or selling) of a security for the purpose of increasing (or depressing) its reported price. The question this paper deals with is whether stock manipulation is socially harmful and whether it should be treated as fraud?³

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¹Letter from F.D. Brown (member of GM Finance Committee) to J.J. Raskob, March 13, 1926, DE GM 34; letter from A.P. Sloan (GM president) to J.J. Raskob (member of GM Finance Committee), March 13, 1926, Raskob Papers. For the story about the GM-Fisher vertical integration, and for reference to these letters, see A.D. Chandler & S. Salsbury, *Pierre S. Du Pont and the Making of the Modern Corporation* (1971), at p. 577.

²U.S. v. Mulheren, 938 U.S. 364 (2nd Cir. 1991)

³ Boesky was convicted for securities fraud; Mulheren was acquitted – see U.S. v. Mulheren, 938 U.S. 364 (2nd Cir. 1991). As to GM, in the end, GM’s investment bankers persuaded GM to back off. See note ... below. However, no one in GM has questioned the legality of this operation.

In 1991, Fischel & Ross offered an aggressive offensive against the regulation of stock manipulation.⁴ They based their attack both on legal and on normative grounds. On the legal frontier they have 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 at any “bad conduct” that would constitute the *actus reus* of this offense. Their normative analysis suggested further that the costs of regulating manipulation exceed the benefits because (a) actual trades hardly affect price; (b) manipulation has a negative expected return and is therefore self deterred; and (c) in any case, courts can hardly distinguish between manipulation and investment. On these grounds they have concluded that manipulation carried by means of actual trades, as distinguished from fictitious trades, should not be considered illegal.

In response to this vigorous attack, Steve Thel offered the best case for the “Government Approach” to stock manipulation.⁵ Thel’s analysis for why manipulation is a form of fraud consists of three steps: (1) rational informed traders have no interest in affecting the market price and would always try to buy at the lowest price available and sell for the highest. (2) Market-participants (should be able to) look at 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 a stock, by buying (or selling) above (or below) the lowest (or highest) price possible,

⁴ Fischel & Ross, Should the Law prohibit Manipulation in Financial Markets?, 105 Harv. L. Rev. 503 (1991).

⁵ Thel, \$850,000 in six minutes – The Mechanics of Securities Manipulation, 79 Cornell L. Rev. 219 (1994).

mislead these price takers. In addition, Thel relies on empirical studies and caselaw to counter Fischel & Ross claims about the self-detering nature of this offense and about the government impotence in this area.

This paper offers an alternative approach to stock manipulation. I agree with large portions of Steve Thel's critical response to Fischel & Ross. I think manipulation does affect price; I believe there are circumstances in which manipulation is profitable; and occasionally the government can distinguish between bids placed for the purpose of raising the market price and bids placed with an eye for investment. However, I do not agree with Thel's conclusion that stock manipulation is necessarily a form of fraud. I also disagree with Thel's claim, with which Fischel & Ross seem to concede, that stock manipulation is necessarily bad. Hence, even if courts could distinguish between a manipulative scheme and an honest investment, it is not clear that a ban on stock manipulation would be warranted.

In this paper manipulation is treated as a medium for communication between manipulators and markets. Manipulators do not trade for investment purposes but rather they place bids in the market for the purpose of sending a signal, a means to convey information to the market.

Thus, according to this approach, any inquiry about the fraudulent nature of a manipulative scheme must address two questions: the first is whether the signal itself is real; the second is whether the information conveyed by the signal is genuine. Wash sales, for example, do not transfer shares from one trader to another and thus they are false signals. Actual trades are authentic signals but they may still convey

false information, in which case we may consider them fraudulent. However, I do not see how real signals that convey genuine information can be characterized as fraud.

According to 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 commenced 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.

This claim that trades are used as signals is not novel. Scholars and regulators have acknowledged a long time ago that firms may use dividend payments, repurchase offers and other signals as a means to convey their 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 those informed players "manipulators" rather than investors because the goal of their trades is not to increase (or decrease) their investment in the firm but rather to raise (or depress) the market price. However, they play a positive role in the market – they are the "good manipulators." In fact, uninformed traders would prefer trading with informed manipulators because unlike investors they do not try to disguise their information. For the same reason, informed manipulators, more than informed investors are conducive to market efficiency.

⁶ The fact that it is disruptive does not necessarily mean it should be considered illegal. Noise traders, for example, are usually considered irrational and thus there is no point in sanctioning them. Furthermore, sanctioning noise or liquidity trades would significantly reduce liquidity in the market. Sanctioning uninformed manipulators would not produce such costs because (a) uninformed manipulators are rational, and (b) sanctioning them would probably improve liquidity. Still, subjecting

Part One of this paper addresses three potential objections to the approach this paper endorses. Part Two presents an empirical study that attempts to test the validity of the antithetic approaches. I conclude with a few normative implications.

Part One: Three Potential Objections to the Alternative Approach

This part of the paper addresses three potential objections to the alternative theory. The first, and most substantial objection, is that informed investors should have no interest in manipulating the market. The second argument is that if manipulators were informed they could achieve the same effect by releasing their information rather than by employing the expansive means of manipulation. The third argument is that there is no way to distinguish between informed and uninformed manipulators, and therefore, an absolute ban on manipulation is warranted. Each of the following subsections addresses one of these objections.

a. Manipulation and Information

Supporters of the government's approach argue that informed players should have no interest in affecting the market price. If private information leads a player to believe a firm is traded at discount, the player is better off purchasing the firm's stock at the lowest price possible and hold it until the market absorbs the information. At this point the informed player might liquidate his investment or hold on to it, depending on the balance of his portfolio and his liquidity needs.

uninformed manipulators to criminal sanctions would be costly if the likelihood is high that the enforcement agencies would confuse between uninformed manipulators and other harmless traders.

This objection is based, at least implicitly, on the assumptions of the Capital Asset Pricing Model. If players hold the market portfolio and can lend and borrow money at the same interest rate, there is indeed no reason for anyone to affect the market price. But in the real world many players are not very well diversified and interest rate for borrowers is higher than for lenders. A risk-averse player who is exposed to the specific risks of one firm may prefer to liquidate his position in that firm even if the information in his possession suggests that the firm is traded at discount. Similarly, informed traders and firms may be subject to liquidity pressures that do not allow them to postpone a block-sale or a public offering until the market absorbs or learns information to which the trader or the firm's insiders are privy. Thus, risk and liquidity constraints may force some players to make a move that runs against the information in their possession.

I have suggested that the source of a trader's constraints may vary from liquidity pressures to risk preferences. At the same way, a trader's advantageous information position might originate from different sources: A controlling shareholder, for example, may be in possession of private information; A broker may be privy to market information – for example, information about someone else's plan to purchase a significant block of shares. Moreover, once we recognize the fact that market price is not only the product of informed trading, and that noise trading may affect the market price just the same, we must also recognize the possibility that some people may be equipped with better analytical tools than those of the market. Informed players, therefore, cannot always trust the market to be aware of private information or to respond to public information as timely as their constraints afford and as the efficient capital market hypothesis predicts.

We may conclude, therefore, that there are circumstances in which players cannot take advantage of their private information or superior analytical tools by investing. One way for such players to “exploit” their advantageous position is through manipulation. Before they make the constrained move, manipulators try to push the market price to the appropriate level.

Consider the GM-Fisher deal: There were exogenous factors, unrelated to Fisher’s market price, that pressured GM to bring the merger with Fisher to closure; this fact alone cannot exclude the possibility that Fisher was indeed traded at premium, or that GM genuinely believed so. Indeed, it is quite conceivable that GM’s controlling position in (and business relations with) Fisher gave GM access to private information that may have not been adequately reflected in Fisher’s market price. Moreover, Fisher’s value was largely dependent on GM’s strength, and therefore, on some aspects of Fisher’s business GM’s directors might have even been better informed than Fisher’s directors. Hence, GM’s plan was not necessarily to mislead Fisher’s shareholders; it might have been designed to “bring the market more in harmony with the equities.”⁷

Similarly with Boesky: he clearly did not hold a well-diversified portfolio and his investment in G&W exposed him to a significant risk. Even if Boesky was risk-neutral, it is clear that once the agreement was signed, he could no longer await for the market to react. At this stage, if indeed he had reasons to believe that G&W shares were traded at discount, he had a legitimate interest in conveying this information to the market before the deal is executed. Manipulation provides a

⁷ A quote from A.P. Sloan (GM president) letter to J.J. Raskob (member of GM Finance Committee), March 13, 1926, Raskob Papers.

mechanism to convey such information. G&W and Boesky have agreed to rely on market price because market price provides the best mechanism to aggregate all traders' opinions regarding the value of G&W stock, and there is no reason to believe the parties wanted to exclude their own opinions from this aggregation mechanism. Hence, although I agree with Steve Thel that Boesky's conduct was inconsistent with an intent to invest in G&W,⁸ I think this fact alone does not negate the possibility that Boesky was privy to information that led him to believe that G&W was traded at discount.⁹

U.S. v. Regan provides a good example for an informed manipulation scheme.¹⁰ In this case the government brought irrefutable evidence to demonstrate that Drexel had intentionally manipulated C.O.M.B. stock: it was a recorded telephone call in which a Drexel employee instructed the brokerage firm of Princeton/Newport to sell C.O.M.B. short and promised to cover any loss Princeton/Newport would incur. The motivation for the scheme was also clear: Drexel was 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 for Drexel's manipulative intent was clear, it was just as clear that Drexel thought C.O.M.B. was traded at premium. In fact, Drexel had grounds to believe that C.O.M.B. itself was inflating its market price, and tried to respond in kind. Now clearly, if Drexel is a fiduciary of C.O.M.B., we may conclude that such manipulation constitutes a breach of Drexel's

⁸ Thel, at p....., criticizing Fischel & Ross for suggesting (at p. 533) that Mulheren might have been interested in investing in G&W.

⁹ In fact, the government alleged that Boesky and Ichan had agreed that \$45 per share was a reasonable price for their stock and Boesky might have been embarrassed to sell for less. Naturally, Thel views this conversation between Ichan and Boesky as evidence for Boesky's incentive to bid up G&W price. According to Thel, Boesky was not only acting on his behalf but also as an agent for Ichan and it would hurt his reputation to sell for less than what they agreed to be a reasonable price, See Thel, *supra* n. at p. 254. However, this conversation also supports the view that Boesky (and Ichan) genuinely believed that \$45 is a reasonable price for G&W shares.

fiduciary duty.¹¹ But that has nothing to do with the question whether Drexel's scheme is fraudulent vis-a-vis the market. Drexel had no reason to lower the offering price unless the current market price was "unfair" to investors.¹² Furthermore, if Drexel's scheme was uninformed, it would have suffered a significant loss: first, it would have to cover Princeton/Newport Losses; second, setting a lower offering price reduces Drexel's underwriting commission.

I believe it is very hard to dispute the argument that manipulators may sometimes be informed. Critics, however, would argue it is mere coincidence. The fact that paranoids may sometimes be stalked does not mean they are not mentally unstable. Similarly, critics would argue, the fact that coincidentally and irrespective of their scheme manipulators may be informed, does not mean that manipulation does not undermine market efficiency. There is a clear difference, however, between paranoia and manipulation. Psychotherapists would treat paranoids just the same whether they are coincidentally chased or not. The market, on the other hand, sanctions manipulators that were identified as uninformed and rewards the informed ones. For manipulators, therefore, being informed is germane to the success of their operation. True information makes better manipulators; it does not make "better" paranoids.

To see how information may supports a manipulative scheme one should recognize the risks the manipulator is facing. At the first stage, the manipulator purchases

¹⁰ 937 F.2d 823 (2nd Cir. 1991).

¹¹ Strong arguments can be brought for why an underwriter should not be considered a fiduciary of the issuer. Mainly, the more duties the law imposes on the underwriter vis-a-vis the issuer, the less the underwriter is capable of playing the role for which the issuer hires an underwriter, i.e., to look after the interests of investors. Paradoxically, therefore, the issuers' best interest (*ex ante*) is that the underwriter will not be subject to such a fiduciary duty.

¹² This sentence must be qualified: if Drexel had anticipated a "hot market" for C.O.M.B. offering, and had planned on "parking" the stock, it would have been interested in lowering the offering price.

shares at above-the-market price. The bids the manipulator places affect the market price because other market participants suspect the manipulator is informed. At the same time the market is also aware of the possibility that it may be a hoax. This uncertainty offers an opportunity for profits: the first to decode the trading signal would be able to buy (in case the information the signal conveys is truthful) or sell (in case it is a hoax) for profit. Thus, the fact the manipulation creates attracts analyst attention. Manipulators know, therefore, that their bids may induce the market to reexamine the prospects of the firm and update its evaluation of the share value. If the manipulation is based on information or genuine belief that the firm is traded at discount, the probability is higher that the market will stabilize above the pre-manipulation price. This would allow the manipulator to execute the constrained deal for a higher price than the price he would get if he had not engaged in the manipulative scheme. However, if the manipulation is not based on information, the manipulator faces the risk that the market's reexamination process would reveal the falsity of the signal and price will drop back to the pre-manipulation price. In this case, the manipulator would not be able to recoup the loss he suffered on the inflationary bids.¹³ (*A formal model is under construction and will be added in the future as an appendix*).

There is of course a third option: whether the manipulation is based on information or not, the constrained deal may be executed before the truth is revealed, i.e., at the post

Although Drexel has engaged in several "parking" schemes of this kind, there was no evidence for such a conduct in the C.O.M.B. case.

¹³ 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

manipulation price. This scenario is more realistic in the Boesky type of cases, where the time-lapse between the manipulation and the constrained transaction is very short. Thus, in such a case a pooling equilibrium probably arises: both informed and uninformed manipulative schemes are likely to be successful. Hence, this paper does not suggest that uninformed manipulators are bound to lose or that their scheme has a negative expected return. All I suggest is that good manipulations are conceivable and that they are more likely to be successful than bad manipulations.¹⁴

b. Alternative Means to Convey Information

The second implicit premise of the informed manipulation approach is that manipulation may occasionally be the most effective way to communicate information. This premise is crucial for two reasons: first, if manipulators could 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.

line with the terms of the purchase price offer.” Letter from F.D. Brown (member of GM Finance Committee) to J.J. Raskob, March 13, 1926, DE GM 34.

¹⁴ Consider the following analogy from the art market: an art collector has purchased paintings of an unknown young artist. The art collector believes in the artistic value of the paintings and in the market’s forthcoming recognition of the artist’s talent. After purchasing the paintings the collector realizes he subjected himself to a significant risk: a large portion of his retirement savings were invested in this one artist, and the market has not yet recognized the artist’s talent. The collector decides to take an action. First, he persuades the artist to place one of his paintings for an auction on the internet. Then, despite the fact that the collector is not interested in expanding his collection of the artist’s paintings, the collector places a very high bid on the auctioned painting, much higher than the lowest price for which he could win the painting. 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 a manipulative conduct – the collector is not waiting until the market would price the paintings appropriately but rather he is switching the market’s invisible arms to the point where the market cannot escape noticing the artist. However, it is also clear that once the market notices the new artist, the market may disagree with the collector’s opinion, in which case the collector’s scheme would fail. Hence, the collector faces a major risk and this risk

Consider GM's case again. Arguably, Instead of manipulating Fisher's price GM could communicate its private information verbally. If this alternative is available, why should GM opt for the more costly strategy of dumping the market? Arguably its because GM was not really informed. Furthermore, even if it was informed, the fact that GM could communicate the information directly suggests that there are no costs involved in deterring GM from using manipulation to communicate information.

One explanation for why verbal disclosure cannot replace trading is that "talk," very often is considered "cheap" and unreliable. Thus, being aware of GM's interest in the merger, the market would not give credit to GM's public statement. On the other hand, the fact that GM sold Fisher's shares for a low price suggests that GM puts its money where its mouth is. Thus, the market is likely to assign more credit to GM's sales than to its public statements.

Sometimes talk is not cheap but rather very expensive, and this may also provide support for the claim that manipulation is an efficient method for communication. Consider first the Drexel – C.O.M.B. case: A Drexel public statement to the effect that C.O.M.B. is traded at premium would probably trigger a similar decline in C.O.M.B. share price but clearly it would furious C.O.M.B. and would harm Drexel's reputation among 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 their privacy better than a public statement.

increases if his information is false. The collector's scheme cannot be considered fraudulent because the signal he had sent was truthful, and the content of the signal was genuine.

More importantly, even informed players may sometimes be mistaken. In fact, since typically the private information involved is “soft” and forward-looking, an informed party may at best be right on average. Thus, a public statement exposes the speaker to significant risks to his or her reputation. It may also expose the speaker to significant legal risks. Just as the government took offense of the fact that Boesky manipulated G&W’s share price, it is very likely that Boesky would have been charged of fraud if he had forced an uptick in G&W share price by releasing a favorable earning forecast.

c. Can the Government Distinguish Between Informed and Uninformed Manipulators

The discussion so far may seem to suggest a normative implication: that the government should sanction only uninformed manipulators. As uninformed manipulation becomes more costly and risky, less uninformed schemes would take place and thus informed manipulations would become more profitable and more instrumental to market efficiency.

But discriminating between informed and uninformed manipulators is even harder than distinguishing between manipulation and investment. Steve Thel, for example, has suggested that the government can often show that the defendant’s trading patterns were not designed to purchase stock at the lowest price possible, and on that basis courts may conclude that defendant’s trades were not investment oriented.¹⁵ But even this evidence cannot help discriminating between informed and uninformed manipulative schemes, both of which are aimed at raising the price rather than purchasing at the lowest price available. Thus, very rarely would a fact-finder be able

¹⁵ see Thel’s response

to determine whether a particular scheme was based on information or not. It is not surprising, therefore, that both the government and the courts have rejected defendants' attempt to suggest that their scheme was based on information.¹⁶

One way the law can tackle with this problem is to shift the burden of proof from the government to the defendant. Under this regime, after the government brings evidence to support its claim that defendant has manipulated the market, the defendant would carry the burden of showing that his scheme was based on information. This allocation of burdens seems appealing for two reasons: first, the defendant probably has better access to evidence concerning his motivations for engaging in the manipulative scheme. Second, it seems easier to prove a positive fact, i.e., that defendant was motivated by information, than to negate the possibility, beyond reasonable doubt, that information was a driving force.

The problem with this approach is that often defendants, albeit informed would not be able to establish such a defense. The main obstacle they face is that the information involved is not necessarily "material." Typically, it will be the manipulators' better analytical skills or better acquaintance with the firm that would enable the manipulator to come up with a better evaluation of the firm's share price. Moreover, sometimes the advantageous position would be based on the manipulator's better comprehension of his own motivations for engaging in the constrained deal. For example, GM's initiative to merge with Fisher Body may imply that GM believes Fisher is traded at 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

¹⁶ See U.S. v. Hall

that the motivation for this vertical integration is very different, e.g., reducing transaction costs. Hence, GM knows that the market had overreacted to rumors about GM's interest in taking Fisher over. GM attempts to mitigate this overreaction by depressing the market price. Clearly, however, GM would find it almost impossible to prove that it was in possession of private information.

If regulators and courts cannot distinguish between informed and uninformed manipulations, then regulators face three options: the first option, the one Fischel & Ross endorse is to refrain from regulating stock manipulation. The second option, in line with the government approach is to ban all manipulations. Indeed, if bad manipulations are more prevalent than good ones, or if the harm generated by bad manipulations is greater than the benefits of the good ones, and the good ones cannot be screened out, then manipulations should probably be banned. The third option is to try to identify circumstances in which it is least likely that a scheme would be based on information and to ban only that type of schemes.

These are all (mainly) empirical questions to be addressed in the next chapter.

Part Two: An Empirical Study of Stock Manipulation

This part offers an empirical study of stock manipulation. As a laboratory field for this study I use the Israeli Experience with stock manipulation. Looking at the long-run performance of manipulated shares traded on the Tel Aviv Stock Exchange, I test the government's hypothesis that these schemes were disruptive to the efficient functioning of the stock market. The Israeli case sets a challenging environment for

this paper mainly because of the peculiar way in which Israeli Law addresses the problem of stock manipulation.

The first section of this part of the paper provides an overview of the law of stock manipulation in Israel, and describes the database for the empirical study. The second section explains the methodology of the study, and the third provides the results.

a. Stock Manipulation in Israel

The Israeli Securities Act of 1968 does not address manipulation directly. In fact, the term “stock manipulation” is not even mentioned in Israeli legislation. Section 54 of the 1968 Act defines Securities Fraud as “affecting the market rate by fraudulent means.” Thus, the government’s prosecution power with regard to stock manipulation is conditioned on the definition of stock manipulation as fraud.¹⁷

The first stock manipulation case in Israel was brought in the late 70s against Levinkof.¹⁸ The government lost this case because the court was not convinced that Levinkof’s scheme was fraudulent. This case discouraged the government from further prosecution of securities fraud cases. The general notion was that if the government failed in such a clear-cut case, it would fail in any other case.

Attitude started to shift after a major market crash that took place in 1982. First, a new sheriff came to power as the head of the securities agency, and the agency’s budget and staff (and staff salaries) increased significantly. In addition, since the common understanding was that the 1982 crash was the product of market manipulation, public opinion regarding this offense has changed dramatically. As a result, starting from 1990 the government had brought dozen of stock manipulation cases. Some of these cases are still litigated, but among those ended, there is no one

¹⁷ It remains unclear whether this is also the case in the U.S..... (explain)

¹⁸ *The State of Israel v. Levinkof...*

single case in which the defendant was acquitted.¹⁹ One explanation for this tendency, is the court's willingness to lower the burden of proof with regard to what constitutes fraud. In any case it is quite clear that under current case-law, a defendant's admission that he placed a bid for the purpose of raising the market price is sufficient for conviction.²⁰ There is no reference, whatsoever, to the question of whether the defendant was actually informed or not.

The several indictments brought by the government point at 57 manipulated shares. Of course, each manipulation has its own unique characteristic, but the 57 stories the government tells share some similar features: First, in all the cases examined in this study the defendant engaged in actual trades. Second, in all of these cases the allegations were that the defendant's bids inflated (or prevented a decline in) the stock price. Two main types of strategies were used by manipulators to reduce the risk and increase the profitability of the manipulation: one is the offsetting trade scheme and the other is the "Other's People Money" or the fiduciary scheme.

1. The offsetting trade scheme

Most of the indictments have charged that defendant inflated the market price before contemplating a sale of block of shares outside the market. The "Tempo" case is illustrative: Like many other firms listed on the Tel Aviv Stock Exchange, most of Tempo shares were held by one person, the controlling shareholder. In 1991 Tempo was contemplating a secondary public offering and it reached an understanding with a lead underwriter on the terms of the deal. However, as very often happens, after the firm announced its intention to issue more shares, market price started to take a sharp

¹⁹ The same is true with regard to other charges brought by this agency. Actually, among the several cases that were brought, only one case (of insider trading) ended with an acquittal, and arguably, even in this case the government won points because the court accepted the Agency legal approach and was only hesitant with regard to the facts.

²⁰ It is quite striking that in many of these cases the defendants admitted that this was their goal mostly because they did not think there is anything wrong with this conduct.

decline. Tempo feared that this decline will continue and would force Tempo to lower its offering price. To tackle with this problem, the controlling shareholder decided to manipulate the market. For about six weeks, the controlling shareholder placed a bid that absorbed the excess supply in the market and basically prevented any further decline in the market price.

The government brought quite conclusive evidence, mainly based on the defendants' admissions, to prove that the controlling shareholder intentionally manipulated the market. It was clear that the controlling shareholder had no interest in increasing his investment in Tempo. Furthermore, it was clear that the defendant could purchase the shares at a lower price and that the sole goal of these purchases was to affect the market price. The motive was also clear: the scheme was designed to enable Tempo to offer its stock for a higher price. The court found this evidence sufficient to convict him of fraud under Section 54.

This case is illuminating because the defense has rested its argument on the signaling theory suggested in this paper, and the court was willing to consider it.²¹ The bad news about this case, both for the defense and for the signaling theory, is that the judge clearly misunderstood the theory. Instead of investigating the question whether the defendant was indeed informed or not, the judge determined that in the particular circumstances of this case it is clear that the defendant's motives were very different.²² In her words:

“From the defendant's testimony it is clear that his purpose was to profit from the scheme rather than to convey

²¹ Actually the defense relied mainly on a paper I have published in Hebrew on “The Maximum Price Puzzle.” This paper was published few months before this case was litigated and it discussed the way the public offering process in the U.S., England and Israel is designed to solve asymmetric information problems.

²² 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 plaintiffs could not point at any loss they have suffered from the transaction.

information. Thus, although I do not reject the signaling theory, it does not fit the facts of the case in hand.”

2. The “Other’s People Money” or the Fiduciary Scheme

The fiduciary type of scheme dominates the population of cases this study examines. Although only two indictments have alleged this pattern, one of them charged the defendants with the manipulation of thirty-one shares, and in the other the government claimed the defendant manipulated six shares.

In this line of cases the defendant is a money manager who uses his beneficiaries’ accounts to manipulate the market. Typically, the scheme starts when the fiduciary purchases ABC shares for his own personal account. Then, using the clients’ funds, the defendant bids up ABC share price. At the last stage, of course, the defendant liquidates his position in ABC at the inflated market price.

Very few would dispute the illegality of this scheme. I definitely agree that this type of scheme is fraudulent even if based on information. If indeed the defendant had reasons to believe that ABC was traded at discount, he should have purchased the stock quietly for his clients’ accounts, making his best effort not to raise the market price. The mere fact that defendant did not make his best effort to maximize his clients’ profits, and failed to disclose to them his conflict of interests seem to constitute fraud.

Since anyway this scheme is considered fraudulent, it seems the question whether this scheme constitutes a stock manipulation, in violation of Section 54, has no practical consequences. In fact, the sanction the Israeli law imposes on “regular” fraud is even harsher than the sanction imposed by Section 54. But for some peculiar reason, the government has argued that this pattern is not only a scheme designed to defraud

clients, but insisted it also constitutes an “effect on market rate by fraudulent means,” and thus it violates Section 54.²³

Arguably, the government’s approach here is quite convincing. The fiduciary 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 on discounted shares. But this view ignores the position of the fiduciary-manipulator in the market and the risks he is facing.

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 highly sophisticated and very often privy to confidential information. They are in personal contact, on a daily basis with firms’ insiders and, more importantly, they are privy to information about their clients’ investment plans. Secondly, it is very reasonable to assume that these money managers would prefer to inflate a stock traded at discount than one that is traded at its value. Such a choice increases the likelihood the scheme would be successful and decreases the likelihood that their clients would suffer a loss. Thus, it reduces their legal as well as their reputation risks.

b. Methodology

In this study I treat the Israeli Securities Agency (“The Agency”) and the defendant-manipulators as competing analysts who provide their forecasts to the market. One analyst, i.e., the agency, recommends a “hold” at the pre-manipulation market price and suggests that this price is the best estimate for a stock future performance. The agency considers the post-manipulation price as inflated, and thus recommends a

²³ public choice theory may provide one explanation for the government’s insistence on this charge: if its a regular fraud, why should the securities agency, rather than the police, deal with it. The more

“sell” at that price. The other analyst, i.e., the manipulator, claims that the firm is traded at discount and at the pre-manipulation price he recommends a “buy.” The manipulator views the post-manipulation price as the appropriate rate for the firm’s share.

Many studies have been conducted to test analysts’ ability to beat the market, by comparing between the long-run performance of shares they recommended and the long-run performance of a benchmark portfolio. The expectation is that if analysts’ predictions were of any value, their recommended shares, on average, would outperform the benchmark portfolio.²⁴

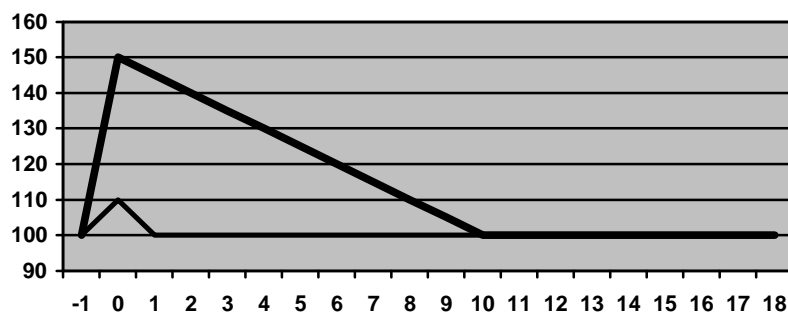
This study is very similar. I compare between the long-run performance (18 months) of the portfolio of the 57 manipulated shares with that of comparable benchmark portfolios. The government’s hypothesis anticipates that an investment in the manipulated portfolio at the pre-manipulation rate should yield, in the long-run, a zero abnormal return. On the other hand, if the competing theory is valid, and some stock manipulations are indeed driven by information, it is expected that the abnormal return on the portfolio of manipulated shares would be positive.

The more efficient and liquid the market is, the faster we should expect it to neutralize the effect of the manipulation. The less efficient and liquid the market the longer the time it would take for the market to correct itself. Graph 1 below offers an ideal schematic sketch for the abnormal return on the portfolio of manipulated stock according to the government’s hypothesis, as a function of market efficiency.

securities fraud cases are revealed the higher the budget the securities agency can demand.

²⁴ Surprisingly, most of these studies have found that it is impossible to reject the claim that the abnormal return of analysts’ recommended shares is actually zero.

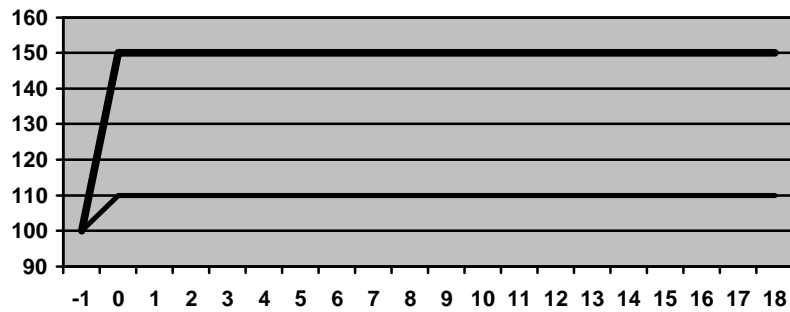
Graph 1



The horizontal axis represents the timeline: the period from (-1) to 0 is the manipulation period, which may last from one day to few months. The period from 0 to 1 is the first month (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 the thick black lines present two potential results, both of which support the government's hypothesis. The thin line represents an anticipated performance of the manipulated portfolio in an efficient market. The thick line, on the other hand, represents a less efficient market, hence the inflationary effect is expected to be more significant. In a less efficient market, we would also expect a longer time to pass until the effect of the manipulation on market price evaporates. I assume that 18 months is a long enough period to allow even the most inefficient market to neutralize the bad effects of manipulation.²⁵

The alternative theory anticipates quite a different picture. In an ideal world, from this paper's perspective, all manipulations are based on information. Graph 2 presents the portfolio performance in such an ideal world.

Graph 2



Again the thin and the thick line represent the portfolio performance in a more efficient and in a less efficient market, respectively. Again if the Israeli market is very inefficient we would expect to find a stronger inflationary effect than if it is less efficient. However, since 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, market price remains at the inflated level.

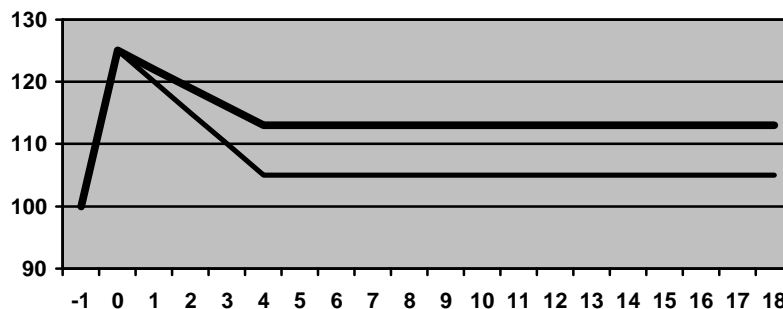
However, Graph 2 provides a very extreme view of the this paper's hypothesis. First, even if all the manipulations were based on a manipulator's genuine belief that the stock is traded at discount we should not expect these manipulators to beat the market. Thus, we should expect market price, after the manipulation, to stabilize midway between the pre-manipulation market price and the post-manipulation price. A better performance than that would imply that not only these manipulators are all of the opinion that the firm is traded at discount, they are also more capable than the average analyst in the market. Moreover, this paper does recognize the possibility that some, maybe most manipulations are fraudulent. Hence, at best the paper anticipates that the abnormal return would be positive. Hence, I suggest that any finding that allows

²⁵ Arguably, if the market is so inefficient that it takes more than 18 months to neutralize a manipulative scheme, it casts some doubts as to whether prices in such a market are of any value worth protection from manipulation.

us to reject the government's theory would provide support for this paper's hypothesis.

Graph 3 below provides a more realistic and rational expectation for the performance of the portfolio.

Graph 3



The graph assumes the market efficiency level to be somewhere in between the two levels presented in the previous graphs. The thick line represents the anticipated long-run performance if all manipulators genuinely believe 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 scheme on such genuine belief.

Before I present the results of the study I would like to point at two sources of potential biases in the study. One of the most troubling aspects of this study is that it relies blindly on the government's selection of cases. This selection may generate a bias in favor of the government's hypothesis. Suppose for example that the Israeli securities agency picks on cases on the basis of market performance. So that the government starts investigating the possibility that a certain stock was manipulated only if its market price fluctuates up and down dramatically. Such a selection process

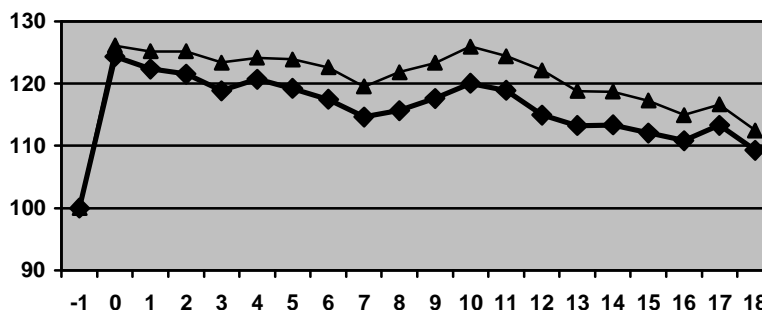
might screen out manipulative schemes that eventually turned out to be with positive abnormal return and catch only schemes with negative abnormal return. Now it is clear that the government uses other indications as well, but a bias may occur even if the government uses market performance as one, out of many other indicators.

The second bias may be caused by the agency decision to investigate a case. The mere fact that the agency investigates a suspicion of stock manipulation, arrest the suspect or bring an indictment may affect the market price and in a way “proves” the government’s point. Such an effect on market price would clearly take place when the party accused of manipulating the firm’s market price is the firm itself, a potential bidder, a market maker for the firm, or someone who plays an important role in the management of the firm. For example, in one of the cases I examine the market price of the firm dropped 68%, and a financial columnist had attributed the market decline to rumors that the entrepreneur and controlling shareholder of the firm was arrested by the agency with suspicion of stock manipulation. Now such a decline may be triggered by two factors: one is that the market trusts the agency’s “recommendation” and infers from this arrest that the firm is traded at premium. The second is that the market anticipates that this investigation would reduce significantly the ability of the suspect to run the firm and thus the firm’s performance is likely to be hurt. From the study point of view, the first factor is clearly “legitimate” because it suggests that the agency helped the market reveal the “truth.” The second factor, on the other hand, allows the government to prove its point whether the manipulation was actually informed or not. This effect may be quite significant given the fact that almost all the investigations have started before the end of the 18 month period.

C. Results

Graph 4 presents the cumulative abnormal return (CAR) on the portfolio of manipulated shares.

Graph 4



The thick diamond-shape line presents the portfolio's performance when the benchmark I use is the Tel Aviv Stock Market Index. The thin triangle-shape line presents the portfolio performance when each stock is compared to an index of comparable size firms.

The cumulative abnormal return was calculated by the following formula:

$$CAR_{(m)} = \frac{1}{57} \sum_{i=0}^m \sum_{t=1}^{57} (r_{(i,t)} - r_{index(t)})$$

Where:

$r_{(i,t)}$ ----- represents the return on share i at period t.

$r_{index(t)}$ ----- represents the return on the index at period t.

t ----- runs from 0 (the manipulation period) to m.

$CAR_{(m)}$ ----- is the cumulative abnormal return on the manipulated shares from the pre-manipulation day until the end of period m.

m ----- runs from 0 (the manipulation period) to 1,2,.... 18.

Table 1 provides more details about the distribution of the shares' performance relative to the comparable size index.

Table 1

T-Stat	STD	CAR (%)	Period
3.27 *	7.45	24.33	0
3.15 *	7.10	22.32	1
2.66 *	8.10	21.54	2
2.32 *	8.12	18.86	3
2.43 *	8.53	20.7	4
2.18 ^	8.82	19.18	5
1.98 ^	8.81	17.45	6
1.39	10.54	14.64	7
1.38	11.36	15.68	8
1.70	10.33	17.59	9
1.88	10.62	20.01	10
1.76	10.71	18.9	11
1.44	10.38	14.94	12
1.17	11.29	13.24	13
1.14	11.65	13.34	14
1.08	11.20	12.08	15
0.95	11.40	10.81	16
1.08	12.28	13.3	17
0.74	12.50	9.27	18

*Significant at the 5% level

^Significant at the 10% level

The graph and the table seem to provide support for this paper's hypothesis, and clearly do not allow us to reject it. But a careful look at the table suggests that after seven months we can no longer reject the government's hypothesis as well. Hence, if it takes the Israeli market six months to correct the mischievous effects of stock manipulation, we cannot reject the government's claim that no scheme was based on information.

Moreover, although the CAR is probably the most common method used in finance literature to measure long-run performance, it is probably appropriate to use it only to

test the alternative theory. The CAR method is biased against the government's hypothesis and thus it is an inappropriate measure to test it.

The source of this bias is in the "rebalance" feature of the CAR method. 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 we hedge against it by selling the 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 against it by selling the index short). We repeat this "rebalance" procedure in the end of each month until the end of the 18th month.

The rationale for this "rebalance" procedure is that it preserves the equal weights of shares in the portfolio. I'll demonstrate the significance of this procedure by comparing it with a "buy and hold" strategy. Consider the following simple example of a portfolio consisted of only two manipulated shares, ABC and XYZ (or n shares, half of which perform like ABC and half like XYZ). At the manipulation period the ABC share triples its price from 100 to 300 and the XYZ is inflated 20% up from 100 to 120. The cumulative rise of the two shares at the manipulation period (assuming the index is stable) is therefore 110%. At the post-manipulation period the ABC share declines 40% (from 300 to 180) and the XYZ rises 50% up (from 120 to 180). Hence, the post-manipulation period's cumulative return on the portfolio is 5%. Thus, in this example, had we followed the manipulators' forecast and invested in the two shares at the price the manipulator recommends (i.e., the inflated price) we would still gain an abnormal return. On the other hand, if we adopt the buy and hold strategy, and do not rebalance the portfolio at the end of the manipulation, the return at the post-

manipulation period would be a decline of 14.28% (from 420 to 360). The difference between these two results is due to the fact that under the buy and hold strategy the weight of the ABC share at the second period is 2.5 times the weight of the second. Thus, the 40% decline in ABC is more influential than the 50% rise of XYZ.

We may conclude, therefore, that the CAR method is a more appropriate measure for testing the alternative theory than the “buy and hold” method. However, and for similar reasons, the CAR method is not an appropriate measure for the government’s hypothesis. When we test the alternative theory we ask whether it would have been profitable to invest in ABC and XYZ at the inflated price. The government hypothesis, on the other hand, implies that the pre-manipulation price is the best estimate for the value of the portfolio and that investing in the portfolio at the pre-manipulation price should yield no abnormal return. Hence, to test the Government’s theory we must ask whether it would have been profitable to invest at the pre-manipulation price. To see why the CAR method does not provide a reasonable answer to this question, consider the previous example with a slight modification. At the manipulation period the two shares experience exactly the same inflation as in the previous example -- ABC goes up 200% (from 100 to 300) and XYZ goes up 20% (from 100 to 120). At the post-manipulation period, on the other hand, ABC declines 80% (from 300 to 60) and XYZ is stable. Had I invested \$1 in each share at the pre-manipulation rate (100), at the end of the day I would have only \$1.80 – a negative return of 10%. This is exactly the result we will reach under the buy and hold strategy, and this result supports the government’s hypothesis. The CAR method, on the other hand, would delude us to believe that investing at the pre-manipulation price was a sound move: at the first period we gained 110% (going up from 100 to 210), and at the second we have lost 40% (going down from 210 to 126). So altogether the

CAR method suggests we are still 26% better off. We may conclude, therefore, that the buy and hold method is a more appropriate measure for testing the government's hypothesis.

Graph 5 and Table 2 below present the "buy and hold" abnormal return on the manipulated portfolio relative to the comparable size index.

Graph 5

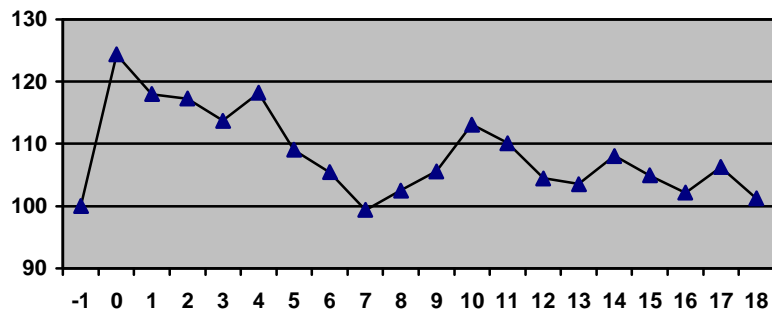


Table 2

T-Stat	STD	Return (%)	Period
3.27 *	7.45	24.33	Manipulation
3.44 *	5.22	17.97	1
2.44 *	7.08	17.26	2
1.69	8.10	13.70	3
1.60	11.36	18.18	4
1.52	5.94	9.01	5
0.86	6.31	5.40	6
-0.06	10.76	-0.63	7
0.19	13.37	2.48	8
0.41	13.66	5.60	9
0.95	13.72	13.10	10
0.70	14.34	10.09	11
0.34	13.18	4.47	12
0.28	12.65	3.55	13
0.55	14.67	8.06	14
0.33	14.78	4.90	15
0.16	13.50	2.14	16
0.41	15.41	6.26	17
0.09	13.59	1.18	18

*Significant at the 5% level

It is quite clear that under the “buy and hold” strategy the portfolio of manipulated shares returns after less than a year to the pre-manipulation period. Moreover, five months after the end of the manipulation period we can no longer reject the government’s hypothesis.

So far I have looked at the performance of the whole portfolio of manipulated shares, and it seems the findings do not allow us to reject any of the two hypotheses. The devil is in the details of course. My next inquiry would be into the effects of liquidity. As explained earlier, the more liquid is the market the harder it is for the manipulator to affect the price and thus the manipulative scheme demands more investment. Moreover, the more liquid the market, the more rapidly we should expect the market to correct itself. For these two reasons we may conclude that an uninformed manipulation of a share traded in a liquid market is more risky. One reasonable prediction we can make, therefore, is that the more liquid is 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.²⁶

I examine this prediction in two steps. In the first step I divide the portfolio to two segments according to their liquidity. As a proxy for liquidity I use the *Silver Index* of the 57 shares, as reported by the Tel Aviv Stock Exchange. The Silver index measures the elasticity of the demand function for each share and is computed and reported on a monthly basis by the Tel Aviv Stock Exchange.

Graph 6 and Table 3 presents the performance of the two segments.

²⁶ On the other hand, one could argue that the more liquid is the market the less likely it is that market price does not reflect the value of the share, and for that reason it is less likely that anyone would be in a position to second guess the market.

Graph 6

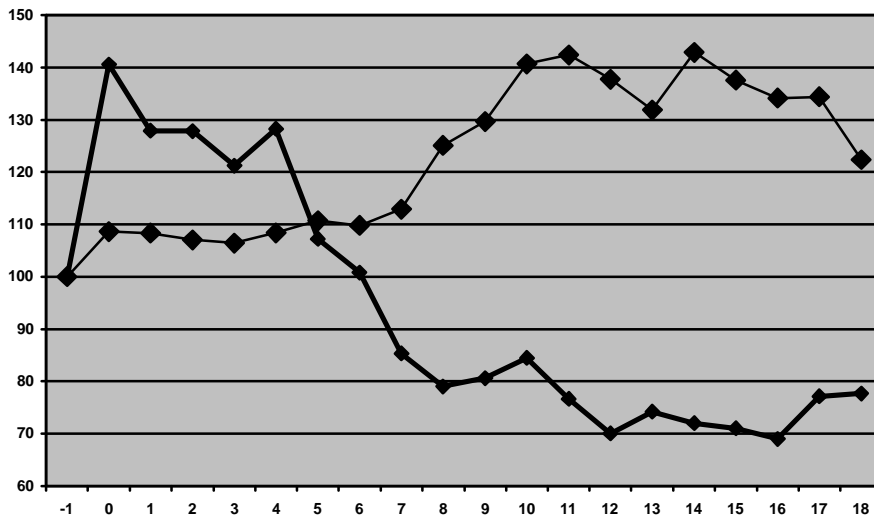


Table 3

The 28 least liquid stock			The 29 most liquid stock			
T-stat	STD	Return	T-stat	STD	Return	Period
2.82 *	14.39	40.61	4.21 *	2.04	8.61	0
2.80 *	9.98	27.97	3.37 *	2.47	8.32	1
2.03 ^	13.69	27.85	2.04 ^	3.44	7.04	2
1.36	15.59	21.20	1.32	4.90	6.46	3
1.28	22.18	28.29	1.43	5.88	8.41	4
0.77	9.39	7.26	1.43	7.48	10.70	5
0.08	10.50	0.83	1.37	7.17	9.81	6
-0.74	19.90	-14.63	1.57	8.22	12.89	7
-0.91	23.09	-20.98	1.97 ^	12.75	25.12	8
-0.91	21.38	-19.38	1.83	16.20	29.71	9
-0.91	17.14	-15.52	2.00 ^	20.36	40.73	10
-1.28	18.31	-23.38	2.06 ^	20.57	42.40	11
-1.96	15.29	-30.01	1.91	19.73	37.75	12
-2.09	12.34	-25.85	1.53	20.84	31.93	13
-2.52	11.15	-28.04	1.68	25.55	42.91	14
-2.30	12.59	-28.99	1.48	25.37	37.62	15
-3.01	10.29	-31.02	1.45	23.49	34.15	16
-1.76	13.01	-22.90	1.27	27.01	34.42	17
-1.91	11.68	-22.33	0.95	23.43	22.36	18

*Significant at the 5% level

^Significant at the 10% level

Table 4 below provides another angle at the effect of liquidity. The first line of the table reports the coefficients and t-test results of the regression: $Inflation = Const + a * Log(Silver)$; where $Inflation$ is the abnormal return on a share during the manipulation period and $Silver$ is the Natural log of the Silver Index for each share as computed and reported by the Tel Aviv Stock Exchange on the eve of each manipulation. The other 18 rows of the table report the coefficients and t-tests of the following regression: $Return(t) = Const(i) + a(t) * Silver + b(t) * Inflation$, where t is the month for which the regression is conducted, and $Return$ is the “buy and hold” abnormal return on each stock from the end of the manipulation until the end of each month.

Table 4

Rsquare	Tinflation	Inflation	Tsilver	Silver	Tconst	Const	Period
0.18			3.12 *	0.18	4.02	1.03	Inflation
0.18	-1.81	-0.06	-1.57	-0.02	-1.72	-0.11	1
0.06	-0.92	-0.07	-0.92	-0.03	-1.02	-0.15	2
0.05	-0.58	-0.04	-1.00	-0.03	-1.41	-0.20	3
0.01	-0.19	-0.02	-0.48	-0.02	-0.55	-0.11	4
0.12	-1.85	-0.18	-0.62	-0.02	-0.79	-0.15	5
0.14	-1.80	-0.18	-1.03	-0.04	-1.26	-0.25	6
0.08	-1.46	-0.11	-1.71	-0.11	0.72	-0.63	7
0.08	0.01	0.00	-1.75	-0.16	-2.03	-0.87	8
0.09	-0.46	-0.09	-1.64	-0.14	-1.94	-0.79	9
0.13	-0.70	-0.12	-1.92 ^	-0.14	-2.14	-0.73	10
0.14	-0.73	-0.14	-2.04 ^	-0.16	-2.20	-0.83	11
0.20	-0.89	-0.15	-2.56 *	-0.18	-2.82	-0.93	12
0.23	-1.42	-0.20	-2.46 *	-0.14	-2.84	-0.79	13
0.27	-1.30	-0.19	-2.93 *	-0.18	-3.17	-0.91	14
0.28	-1.39	-0.19	-2.95 *	-0.17	-3.27	-0.91	15
0.35	-1.57	-0.20	-3.55 *	-0.19	-3.95	-0.99	16
0.30	-1.35	-0.18	-3.15 *	-0.18	-3.57	-0.97	17
0.29	-1.23	-0.16	-3.15 *	-0.18	-3.65	-0.98	18

*Significant at the 5% level

^Significant at the 10% level

The results provide support for our two predictions. Looking at the manipulation period, we can see in Graph 6 and Table 3 that the two groups experienced a statistically significant rise. However, the rise of the less liquid segment (40.6%) was much more substantial than that of the more liquid segment (8.6%). The first row of Table 4 also supports these findings: the coefficient for the Silver index is in the right sign and is statistically significant.

Looking at the post-manipulation period, Graph 6 and table 3 suggests that the less liquid segment of the portfolio experienced a substantial decline right after the end of the manipulation. Six months after the manipulation ended these stocks have returned to the pre-manipulation rate. From the seventh to the eighteenth month the illiquid segment experienced a substantial and significant negative abnormal return. These findings provide support for the government's theory.

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

Table 4 reveals a very similar story about the relationship between a share's liquidity on the eve of the manipulation and its post-manipulation abnormal return. The coefficient of the Silver Index is in the right sign throughout all the 18 months, and are occasionally statistically significant.

Concluding Remarks

The main 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. The first part of the paper explained why it is conceivable that an informed player would choose to inflate the market rather than purchasing the stock at the lowest price available. The second part provided an empirical study which I believe provide some support for the claim that informed manipulation is not only theoretically but also practically conceivable, at least in liquid markets.

These findings have no clear normative implications. Arguably, the fact that few manipulative schemes are facilitating market efficiency does not mean that on balance manipulation is not harmful. In fact, the empirical study suggests that if we look at all the manipulations as one group the conclusion must be that they were harmful.²⁷

²⁷ Although given the bias of this study in favor of the government's one should be careful from drawing this conclusion.

Thus, if the government cannot distinguish between informed and uninformed schemes it should probably ban all stock manipulations.²⁸

Defining manipulation as fraud notwithstanding a manipulator's set of information or belief would achieve this result. However, one conclusion we may draw from this paper is that a more moderate approach can be adopted. According to this approach a manipulation will be considered illegal either if actual fraud is proven or if the circumstances surrounding the manipulation suggest it is highly unlikely that the manipulation was based on information. Although this type of sensitive regulation can be reached through broad interpretation of the law of fraud, a more reasonable approach would probably divide the labor between the court and the regulator, and between the law of fraud and government regulation.

Thus, the law of fraud should govern only cases in which it is clear that the manipulator was not relying on genuine information. At the same time the government should be authorized to regulate stock manipulation even if there is no proof that the particular scheme is fraudulent.²⁹ When promulgating these rules the government should take into account the likelihood that a certain practice is based on information. For example, one lesson from our study here is that the liquidity of the market for the manipulated share as an important indicator for when manipulation is more or less likely to be based on information. Other factors should also be investigated. For example, I have suggested that the longer time lapse between the

²⁸ Furthermore, the study examines only manipulations that were executed under a regime that bans stock manipulation. Arguably, if stock manipulation was allowed, or if the prosecution of stock manipulation was conditioned on the defendant's information set, the percentage of bad manipulators might have changed, some would argue for the better and some for the worst.

²⁹ Hence, I do not agree with Steve Theil's suggestion that every stock manipulation is fraud. But I do agree with him that Section 10(b) of the 1934 Act should be read to allow the SEC to regulate

manipulation and the manipulator's transaction at the inflated price the more likely it is that the manipulation is based on information.³⁰ Courts are not equipped to conduct such studies. Even if they could conduct such studies it seems it would be hard for courts to draw such lines which are not based on the defendant's conduct but rather on objective factor like liquidity. For regulators of securities markets, on the other hand, it is very common to apply different standards to different segments of the market.

Clearly, the Israeli courts and regulators took exactly the opposite route: the Israeli Securities Agency has so far refrained from introducing any regulation of that sort. The courts, on the other hand, were cooperating with the agency in regulating manipulation by means of the criminal law of fraud. Moreover, when producing these rules, the Israeli regulator and the courts paid no attention whatsoever to the information set of the defendant.

manipulative practices even if there is no proof that such practices actually amount to fraud. See Thel, Regulation of Manipulation Under Section 10(b), 1988 Colum. Bus. L. Rev. 385 (1990).

³⁰ Although my study provides no support for this claim.