On Insider Trading, Markets, and "Negative" Property Rights in Information

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ARTICLES

ON INSIDER TRADING, MARKETS, AND "NEGATIVE" PROPERTY RIGHTS IN INFORMATION

Zohar Goshen* and Gideon Parchomovsky**

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INTRODUCTION

FEW issues have sparked as much debate and disagreement among Law and Economics scholars as the prohibition on insider trading.1 Ironically, the Supreme Court's attempts in Chiarella v. United States,2 Dirks v. Securities and Exchange Commission,3 and, most recently, in United States v. O'Hagan4 to clarify the scope and content of the ban on insider trading, and the subsequent reaction of the Securities and Exchange Commission ("SEC"),5 have

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2 445 U.S. 222, 235 (1980) (holding that the "duty to disclose under § 10(b) does not arise from the mere possession of nonpublic market information").

3 463 U.S. 646, 654 (1983) (holding that the duty to disclose nonpublic information arises not from the actual possession of the information but from a fiduciary relationship with the corporation or the seller of securities).

4 521 U.S. 642, 647 (1997) (holding that "a person who trades in securities for personal profit, using confidential information misappropriated in breach of a fiduciary duty to the source of the information," is guilty of violating § 10(b) and Rule 10b-5).

5 The SEC reacted to these holdings in several ways. Following Chiarella, in an attempt to narrow the scope of the holding, the SEC enacted Rule 14c-3(a), whose validity in some contexts remains doubtful. See O'Hagan, 521 U.S. at 672 n.17 (1997). Then, in response to Dirks the SEC had initially supported the court's ruling, exempting selective disclosure to investment analysts. Later on, the SEC retreated from its earlier position and attempted to expand Dirks' "personal benefit" test. See SEC v. Stevens, Litigation Release No. 12813, 1991 SEC LEXIS 451 (Mar. 19, 1991) (attempting to hold Stevens liable for informing market analysts about earnings in
only added fuel to the fire of the academic debate already raging on the issue.

The most intriguing feature of the debate on insider trading is that all contributors seek to promote the same goal: enhancing the efficiency and liquidity of securities markets. Substantial disagreement exists, however, as to how the ban on insider trading affects the twin goals of efficiency and liquidity. Critics of the ban on insider trading maintain that permitting insiders to take advantage of inside information is the best way to ensure efficient share prices. Given that insiders have ready access to inside information, critics argue that permitting them to derive private benefit from such information guarantees that new information will reach the market rapidly, and consequently, that share prices will adjust quickly to reflect the new information. By contrast, proponents of the ban contend that repealing it will diminish market efficiency. Since insiders seek to maximize their own gain, not market efficiency, proponents contend that absent a prohibition on insider trading, insiders would withhold valuable information from the market until it is optimal for them to trade, thereby compromising the efficiency of the capital market.


Jonathan R. Macey, Insider Trading: Economics, Politics, and Policy 7 (1991) (“A great deal of debate has concerned how much harm insider trading does to investors.”). Macey, perhaps the leading authority on the matter, writes: “Those... who take a ‘tough minded’ scientific or economic approach to the debate [about insider trading] inevitably end by condemning the practice on efficiency grounds that seem to others implausible, if not incredible.” Id. at 2 (emphasis added).

A securities market is liquid when investors can buy or sell shares on very short notice. Macey, supra note 6, at 7.

See id. at 11 (“All sides of the debate about insider trading have argued that the rules they prefer will enhance market efficiency and liquidity.”).

See id.

See id.

See id.

See, e.g., David Ferber, The Case Against Insider Trading: A Response to Professor Manne, 23 Vand. L. Rev. 621, 623 (1970) (“But if insiders were permitted to profit from inside information, there would be a natural tendency for insiders to
Shifting the focus of the debate to a contractual sphere, Carlton and Fischel framed the matter as an issue of efficient allocation of property rights in inside information. Oddly, however, they as well as other Law and Economics scholars have limited the list of potential entitlement holders to two: the managers and the shareholders. In other words, the scope of the inquiry has been restricted to the boundaries of the firm. As Jonathan Macey writes: “[T]he debate about insider trading is really a debate about how to allocate a property right within a firm.” When insider trading is permitted, managers will reduce their salary demands by an amount equal to the expected gain from insider trading, therefore benefiting the shareholders who will pay lower salaries to the managers. The choice between paying higher salaries and permitting insider trading ultimately depends on the particular characteristics of each individual firm and on its managers’ attitudes toward risk. Because different firms will choose to allocate property rights in inside information differently, a powerful argument in insider trading literature suggests that shareholders and managers should be permitted to contract over the allocation of property rights in inside information. Moreover, several scholars have pointed out that the prohibition on insider trading does not benefit the shareholders because the ban does not transfer the value of the information to the


15 See id. at 861, 863 (analyzing shareholders’ and managers’ entitlements but stating that “[w]hether insider trading is beneficial depends on whether the property right in information is more valuable to the firm’s managers or to the firm’s investors” and structuring its analysis around this point but acknowledging that “the arguments for and against insider trading may apply equally to trading by others”); see, e.g., David D. Haddock & Jonathan R. Macey, A Coasian Model of Insider Trading, 80 Nw. U. L. Rev. 1449, 1449–50 (1986).

16 Macey, supra note 6, at 4 (emphasis added).

17 See Macey, supra note 6, at 5–12; Haddock & Macey, supra note 15, at 1463.

18 See Macey, supra note 6, at 4–12.

19 Carlton & Fischel, supra note 14, at 861–66 (applying the Coase theorem to insider trading analysis); Haddock & Macey, supra note 15, at 1451, 1468 (calling for a contractual resolution of the insider trading dilemma).
shareholders, but rather to professional investors. Consequently, the blanket prohibition on insider trading occasions a loss to the shareholders as a group without offering them any redeeming benefits. The shareholders lose twice: They pay higher salaries to managers, and they do not get the value of the inside information. The seeming superiority of a contractual solution to the problem of insider trading has led several leading commentators to conclude that the existing ban on insider trading diminishes the welfare of shareholders. Moreover, some of these commentators have even suggested that the ban on insider trading is the result of the disproportionate political power of market analysts who manipulated the political process to effect a wealth transfer from the managers to themselves.

We challenge both these conclusions and the analysis on which they rest. In particular, we posit that existing analysis is misguided as it rests on the erroneous assumption that property rights to inside information must be allocated within the boundaries of the firm—namely, either to shareholders or to managers. Consequently, existing analysis ignores the possibility of awarding the property right of inside information to market analysts. This omission stems, in our view, from the analytical convention that property right entitlements must be positively assigned to a particular well-defined actor or group—in this context, managers or shareholders. We observe that property rights may also be "assigned" negatively to deny a certain group (managers) the use of a particular resource (inside information) in order to afford free access to the resource to anyone who wishes to utilize it (market analysts). We utilize this observation to develop an innovative market approach to the problem of insider trading.

The adoption of a market-wide approach to the problem of insider trading enables us to present three novel insights.

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"See Macey, supra note 6, at 3-5; Haddock & Macey, supra note 15, at 1468.

See Michael P. Dooley, Fundamentals of Corporation Law 816-57 (1995) (explaining why the SEC targeted market analysts as part of its enforcement program); Macey, supra note 6, at 17-20 (describing to whom the insider trading regulation was sold); Haddock & Macey, supra note 20, at 328-29 (same).
First, we show that when market analysts are taken into consideration, it becomes apparent that the choice between insiders and market analysts raises a broader policy inquiry: Which of the two groups—insiders or analysts—will better enhance efficiency in information and capital markets?21

We demonstrate that analysts outperform insiders in providing efficiency to both markets.22 In securities markets, analysts price stocks more efficiently than insiders because analysts consider both firm-specific information and general market information.23 In contrast, insiders only consider the former type of information, undermining their ability to price efficiently.24 In addition, analysts provide superior liquidity to financial markets.25 Liquidity crucially depends on the number of transactions in the market. Both insiders and market analysts trade when the market value of a given share deviates from their private valuation. However, because the subjective valuations of analysts widely diverge, the number of trades in a competitive analysts’ market far exceeds the number of trades in a concentrated insider market. Moreover, because market analysts are better diversified and capitalized than insiders, the volume of trades generated by a competitive analysts’ market is far greater than the volume of trades generated in a highly imperfect insider market.26

Second, we show that allocating the property right to market analysts is the only way to ensure the integrity of securities markets. Gathering and processing information about share prices are services that may be performed either by insiders or by market analysts. Because of their superior access to inside information, insiders would consistently beat market analysts when trading against them in the market and would eventually drive the analysts

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21 See infra Section I.B.
22 See infra Section II.B
23 See infra Section II.B.1.
24 See infra Section I.B.1.
26 For our discussion on liquidity and the superiority of analysts in providing liquidity, see infra Section II.B.2.
out of the market. This dominance would come at a dear price. The existence of market analysts generates valuable positive externalities that would be lost if insiders were to control securities markets. A competitive analysts’ market produces efficient information markets. Competition among analysts is responsible for the plethora of information sources, such as financial newspapers, financial television channels, and financial web sites. These information sources improve investors’ understanding of financial markets and enhance their confidence in them, which in turn increases both the number of investors and their willingness to invest. Moreover, these information sources improve overall pricing by other professional investors. Additionally, a vibrant analysts’ market supports the investment banking market and draws foreign corporations from a less developed analysts’ market to issue shares and list them in countries with a better developed analysts’ market.

Given the numerous positive externalities generated by a vibrant analysts’ market—all of which flow directly from the prohibition on insider trading and would not exist otherwise—the issue of insider trading cannot be left to contractual arrangement on a firm by firm basis. In deciding whether to permit insider trading, firms only consider their gains and losses, and exclude from the calculus the broader societal interest in having developed financial markets. In a contractual regime, firms who stand to gain from permitting insider trading will permit the practice without taking into account the social cost of their decisions. Our analysis indicates that the social cost of permitting insider trading may far outweigh the private gain to the individual firms that would otherwise permit it. The decision as to whether to permit insider trading should not be the subject of private contracting; the imposition of a blanket prohibition is the most efficient way to address the issue.

Finally, our analytical framework illuminates two specific problems with which the SEC and the Supreme Court have long grappled. The first is the problem of “selective disclosure,” which involves disclosure of inside information by managers to a small

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26 See infra Part I:§ II.C.
27 See infra Section III.A.
28 See infra Section III.B.
group of analysts ahead of the market. The second is the problem of "warehousing," which arises when a potential bidder tips a small group of related investors about her intention to bid for a specific target corporation based on the understanding that the investors will tender their holding to her once the bid is made public.

Effective as of October 23, 2000, the SEC's newly enacted Fair Disclosure Regulations prohibit any form of selective disclosure, mandating instead equal timing of disclosure. Since this rule increases competition among analysts, it will clearly have a desirable effect on companies enjoying high liquidity in trading and wide analysts' coverage. However, we show that the SEC has failed to consider the beneficial market effects of selective disclosure on small and relatively illiquid companies. For companies that fail to attract sufficient investor attention, selective disclosure is an important mechanism for initiating analysts' coverage. Thus, we question the over-inclusiveness of the new rule. While we commend the application of the new rule to companies that already have wide analysts' coverage, we believe that small companies whose shares suffer from illiquid trading should be exempt.

As for warehousing, although the practice is prohibited under SEC Rule 14e-3(a), the validity of this rule in this context remains unclear. We show that legal regulation of warehousing requires careful balancing between the market for corporate control and the capital market. While warehousing facilitates successful takeovers, it may reduce the return to analysts on investment in information.

The article consists of four parts. In Part I, we will present our market model in which four groups of investors—insiders, information traders, liquidity traders, and noise traders—interact. Using

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32 See infra Section IV.A.
33 See infra Section IV.B.
34 Fair Disclosure Regulations, 17 C.F.R. § 243 (2000). In these regulations, the SEC has changed completely its earlier position of supporting selective disclosure to investment analysts. See Langevoort, supra note 5, at 1035-36.
35 See infra Section IV.A.
36 See id.
37 See id.
39 United States v. O'Hagan, 521 U.S. 642, 672 n.17 (1997) ("We leave for another day, when the issue requires decision, the legitimacy of Rule 14e-3(a) as applied to 'warehousing' . . . .").
40 See infra Section IV.B.
this model, we will assess the effect of each group on efficient stock pricing. In Part II, we will analyze the conditions for attaining efficient and liquid financial markets. We will demonstrate that analysts provide superior efficiency and liquidity to financial markets relative to insiders. In Part III, we will unveil and describe the positive externalities analysts’ competition generates for the information market and the investment banking industry. Finally, in Part IV, we will point out and assess the implications of our market approach for the ongoing debate about the regulation of selective disclosure and warehousing.

I. THE MARKET MECHANISM

In this Part we sketch out a new model for understanding the market dynamics affecting information and its impact upon stock pricing and liquidity. This conceptualization enables us to show that the choice facing policymakers in regulating insider trading is whether to set up an insider-based information market or an analyst-based information market. Comparing the two options, we observe that the insiders’ market is highly inefficient relative to the analysts’ market. As a result, efficiency-minded policymakers should favor the development of an analyst-based information market.

A. The Market Players

The capital market consists of four groups of players: insiders, information traders, liquidity traders, and noise traders. Insiders have access to inside information due to their proximity to the firm. They also have the knowledge and ability to evaluate this information and to price it.

Information traders, the second group, lack access to inside information, but are willing and able to devote resources to gathering

\[\text{For a detailed analysis of noise traders in capital markets, see J. Bradford De Long et al., Noise Trader Risk in Financial Markets, } 98 \text{ J. Pol. Econ. 703 (1990).}\]

\[\text{We use the term “inside information” to describe a piece of firm-specific information produced within the firm and unknown to the public. After public disclosure, the piece of information transforms into “public information.” However, for clarity’s sake, in our analysis we nevertheless continue to refer to this information as “inside information,” tracing it to its origins.}\]
and analyzing information as a basis for their trading. Although individual information traders do not necessarily perform all functions of informed trading—for example, gathering information, processing information, and trading securities—they do perform the functions as a group.

Information traders are comprised of two sub-groups: analysts and stock pickers. Analysts are experts specializing in providing analytical services regarding the value of individual firms as well as the market as a whole. In this Article, we group under the term "analysts" a wide range of professional investors who produce financial analytical work upon which they base their investment decisions. Like the insiders, analysts have the ability and knowledge to collect, evaluate, and price information. Stock pickers, too, collect and evaluate information, but they are less efficient than analysts in performing these functions. As a result, stock pickers are "slower" at gathering, analyzing, and responding to new information, and the accuracy of their evaluations is inferior to that of analysts. Therefore, stock pickers often buy information and analytical services from analysts.

The third group, liquidity traders, does not collect and evaluate information; rather, their investment reflects their individual allocation of resources between savings and consumption. Unwilling to devote resources to constant gathering and analyzing of new information, liquidity traders, if rational, will follow a strategy of buying and holding a portfolio of shares. 

Finally, noise traders, the fourth group, act irrationally, following differing methods of investment either as individuals or as a group. Noise traders often believe that they are in possession of valuable information and invest as if they are information traders. In such cases, other market participants cannot separate noise traders from true information traders.

B. The Pricing Process

Insiders or information traders detect discrepancies between value and price based on the information they possess and then
trade to capture the value of their informational advantage. When they observe undervaluation, they buy, thereby raising the price; conversely, when they spot overvaluation, they sell, thereby causing the price to drop. Since price changes are always compared with some calculated value, a trade is triggered whenever the price change is not warranted by the currently known information. Given this investment strategy, trading against a party with superior information will result in a loss.

Liquidity traders, who trade irrespective of new information—for example, selling for liquidity or buying for saving—will trade regardless of the actions of insiders and information traders. It is important to note that insider trading does not harm liquidity traders. Obviously, when insider trading has no effect on stock prices, liquidity traders will not be harmed. Counterintuitively, however, even when insider trading does affect stock prices (for example, prices rise when insiders buy), insider trading does not adversely affect liquidity traders. Indeed, if liquidity traders trade in the same manner as do insiders—for example, buying when insiders buy—they lose since they could have bought at a lower price if the insiders were not buying as well. However, if liquidity traders trade against insiders, they gain since they would have bought for a higher price absent selling by insiders. The same is true when liquidity traders sell. Liquidity traders who follow the strategy of buying and holding a portfolio do not lose on average to either insiders or information traders. When they buy a portfolio, they lose on some transactions (when they buy together with insiders or information traders) and gain on others (when they buy when insiders or information traders are selling). Likewise, when they sell the portfolio, they lose at times and gain at others. On average they earn the market return for the period of their holding. Only

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" Trading by information traders also does not harm liquidity traders.

" See Haddock & Macey, supra note 15, at 1453-54.

" In other words, the “fair play” or “market integrity” rationales do not hold with regard to these investors: They do not expect equal and timely access to information and indeed they are not harmed by not getting it. Cf. Robert J. Haft, The Effect of Insider Trading Rules on the Internal Efficiency of the Large Corporations, 80 Mich. L. Rev. 1051, 1081-53 (1982) (explaining the “fair play” and the “market integrity”

Noise traders are active but irrational. Their actions are hard to predict. If they act completely randomly they will cancel out the effect of each other on prices, and, on average, they will not lose to insiders or analysts.\footnote{Randomizing a large number of trades has the same protective effect as buying and holding a portfolio. However, this strategy involves greater transaction costs.} Noise traders, however, sometimes act as a herd. They can be bearish or bullish, as a group, with respect to a specific stock, a particular industry, or even the market as a whole.\footnote{See De Long et al., supra note 40, at 704-26.}

Whether they will lose to insiders or information traders depends on the time it takes the stock to reach its estimated "value" as calculated by insiders or information traders. Suppose insiders and information traders are of the opinion that the stock Internet.com is over-valued, and thus, sell the stock. Noise traders who buy the stock will lose if they hold the stock until it eventually drops. But in the interim period they can earn a positive return if the stock price continues to rise. In the long run, however, they will lose, as a group, to insiders or information traders.

Information traders cannot discern whether price changes are caused by noise traders or by insiders.\footnote{Cf., e.g., Morris Mendelson. The Economics of Insider Trading Reconsidered. 117 U. Pa. L. Rev. 470, 474 (1969) (book review) (arguing that "[a]s long as other investors do not have the information [that insiders have], they have no reason to change their opinions of the value of the stock," irrespective of noise trading).}

When noise trading is mixed with insider trading, information traders cannot extract information from volume or price movements, nor can they deduce the identity of the traders.\footnote{It is noteworthy that Professors Gilson and Kraakman have argued that the trading volume of price movements may themselves send a message to analysts regarding the nature of the inside information, especially if some analysts can deduce the identity of the inside traders. However, they have acknowledged that this method is the least efficient way of achieving efficient pricing because this process of "decoding" is imprecise and slow. See Ronald J. Gilson & Reiner H. Kraakman. The Mechanisms of Market Efficiency. 70 Va. L. Rev. 549, 574-79 (1984). We submit that}
trade, they will consistently beat the information traders. Since information traders follow prices and react to information, they will always be on the losing side. Suppose an analyst, based on the information available to her, believes that a price of a certain stock accurately represents its value. Now suppose that an insider is selling the stock based on negative private information she possesses, causing the stock price to decline. The analyst, being ignorant of the inside information, will interpret this decline as an undervaluation and will buy the stock. The stock will continue to decline and only after the negative information becomes public will the analyst realize that she bought an overpriced stock. The same is true of positive inside information. Information traders cannot diversify away the risk of trading against insiders, and they will always lose when competing against insiders. Thus, when insider trading is prevalent, information traders will be unable to recoup their investment in information, and eventually they will exit the market.

Our assumption is more realistic for several additional reasons. First, it is important to note that Gibson and Kraakman's argument was made regarding a market from which noise traders were absent. The addition of noise traders makes it even more difficult for analysts to isolate informed trading from uninformed trading, thus further reducing the efficiency of decoding. Second, empirically, the feasibility of decoding is challenged by the finding that markets do not display "strong efficiency" (i.e., insiders do outperform the market). See, e.g., Joseph E. Finnerty, Insiders and Market Efficiency, 31 J. Fin. 1141, 1148 (1976); H. Nejat Seyhun, Insiders' profits, costs of trading, and market efficiency, 16 J. Fin. Econ. 189, 211 (1986). That is, analysts are unable to detect the nature of the inside information or to deduce the identity of the inside traders during the trade so as to prevent abnormal return to insiders. See id. Moreover, even the information about already executed and reported insiders' trades compounded in the SEC's Official Summary is not always exhausted by analysts. See, e.g., Jeffrey F. Jaffe, Special Information and Insider Trading, 47 J. Bus. 410, 428 (1974) (suggesting that investors can profit from prompt use of the Official Summary). Compare Halbert S. Kerr, The battle of insider trading vs. market efficiency, 6 J. Portfolio Mgmt., Summer 1980, at 47 (using a statistical analysis to show that excess returns can no longer be gained), with Raymond Golde & Keith Ambachtsheer, The battle of insider trading vs. market efficiency: Comment, 7 J. Portfolio Mgmt., Winter 1981, at 88 (concluding that Kerr's results "show that non-insiders can use the Official Summary to earn excess profits significantly more often than not").

Haddock & Macey, supra note 20, at 318.

See Walter Bagelot, The Only Game in Town, 27 Fin. Analysts J., Mar.-Apr. 1971, at 12, 13 (showing that in a model with informed traders, market makers, and liquidity traders, market makers always lose to informed traders).

See, e.g., Michael J. Fishman & Kathleen M. Hagerty, Insider trading and the efficiency of stock prices, 23 RAND J. Econ., Spring 1992, at 106, 110 (showing that in a model with outsiders possessing less precise and more costly information than that
In short, permitting insider trading would lead to a market without analysts.

When insiders are restricted from trading, the outcome will be different. We consider a legal restriction on insider trading that is based on the "disclose or abstain" rule. Under this rule, insiders can either disclose the inside information they possess and trade on this information together with the rest of the market or abstain from trading until some other legal duty forces them to disclose. Once the information is disclosed, insiders and information traders compete to capture the value of the information. Initially, there will be only a few analysts in the market who will make abnormal returns on investment in information. In this transition period, the market will be less efficient and less liquid in comparison with the preceding stage in which insiders were allowed to trade. Gradually, however, the number of analysts will increase and competition among them will bring down the return on investment in information to a competitive rate, thereby creating a more efficient and

of an insider, the number of informed outsiders declines as a function of the relative precision of the insiders' information: Hayne E. Leland, Insider Trading: Should It Be Prohibited?, 100 J. Pol. Econ. 859, 883–85 (1992) (concluding that in a model with monopolistic insiders possessing more precise information than informed outsiders, the welfare of informed outsiders always declines when the insiders are trading).

Even if one assumes that analysts can "decode" insider trading or deduce the identity of the inside traders, it is clear that this process of decoding is slow, costly, and imprecise. Therefore, the effect of decoding on our analysis will be merely quantitative: Decoding will only affect the degree to which insiders will drive analysts out of the market—rather than zero analysts, there will be a few left. Yet, the process we described above remains valid. In our analysis, we assume zero decoding in order to highlight the tension between insiders and analysts.

We take as given the current regime prohibiting insider trading. For a significant proposal to improve the existing regime, see Jesse M. Fried, Reducing the Profitability of Corporate Insider Trading Through Pretrading Disclosure, 71 S. Cal. L. Rev. 503, 506 (1998) (advocating a rule that requires insiders to disclose their intended transactions prior to their execution).

The disclose-or-abstain rule does not prescribe a particular timing for disclosure. Rather, this rule permits each individual firm to adopt its own disclosure policy from the permissible range delineated by mandatory disclosure rules.

See generally Rezaul Kabir & Theo Vermeulen, Insider trading restrictions and the stock market: Evidence from the Amsterdam Stock Exchange, 40 Eur. Econ. Rev. 1591, 1591 (1996) (examining the effect since 1987 of introducing insider trading restrictions on the behavior of the Amsterdam Stock Exchange and finding that "stocks became less liquid" and that there was some evidence of a reduction "in the stock market's speed of adjustment to positive earnings news").
liquid market. In this market, however, due to their superior skills, analysts will beat stock pickers. Valuing information trading over liquidity trading, but acknowledging the superiority of analysts, stock pickers will respond by buying analytical services from analysts, who will sell these services at a competitive price.

If only a few insiders occasionally violate the restriction and trade on inside information, the analysts' market can still function. Such limited insider trading diminishes to some extent the expected return of analysts but leaves them a sufficient return to remain operative. The extent of insider trading sets the boundaries of the analysts' market. When the extent of insider trading is limited, a competitive analysts' market will develop; when insider trading is extensive, no analysts' market will form. This substitution effect between insiders and analysts is the key to understanding the ban on insider trading.

Market prices are the result of the actions of all four groups. Insiders and information traders follow market prices and counter deviations from their calculated subjective "value." Liquidity traders who follow the buy and hold strategy do not distort prices because other market participants do not assign informational content to their trading activities. Noise traders, on account of their irrational investment strategies, distort prices. Thus, the accuracy of stock prices depends on the ability of insiders or information traders to counter the actions of noise traders. The better information traders or insiders are able to counter price deviations caused by noise traders or by newly disclosed information, the more efficient the market.

In light of this market model, and given the goal of maximizing the efficiency and liquidity of financial markets, the question becomes which group—insiders or analysts—is better able to attain this goal?

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Cf. Fishman & Hagerty, supra note 56, at 107 (arguing that "insider trading leads to less efficient stock prices"). But see Beny, supra note 27, at 6 (finding that "weaker insider trading regimes have, on average, less liquid equity markets").

See Jinyoung Shin, The Optimal Regulation of Insider Trading, 5 J. Fin. Intermediation 49, 49 (1996) (considering the optimal enforcement efforts and costs in a model including insiders, informed market professionals, and liquidity traders reveals that "tolerating some insider trading can be the optimal regulatory policy").

* Id. at 59.
II. EFFICIENT AND LIQUID MARKETS

In this Part, we analyze the conditions under which capital markets are efficient and liquid and explain the importance to the economy of attaining these goals. In the following Sections, we demonstrate, contrary to conventional wisdom, that analysts are superior to insiders in providing efficiency and liquidity to financial markets. In the remainder of this Article, we draw on this important insight to provide a new economic justification for the ban on insider trading.

A. When Are Markets Efficient and Liquid?

Markets are efficient when prices accurately reflect all available information regarding the assets traded in the market. Attaining efficient pricing is crucial for achieving efficient allocation of resources in the economy. Among other things, efficient pricing is important for the market for corporate control, for monitoring and controlling the management agency problem, for the allocation of resources through initial public offerings (“IPOs”) and secondary offerings, for keeping high liquidity in the market, and for other transactions in the economy that rely on market prices. Markets are liquid when traders can execute transactions speedily. The more liquid a market, the faster a trading order is executed. Liquid markets benefit the economy as they reduce the cost of transacting and the risk associated with investment.

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[Footnotes]

44 See Marcel Kahan, Securities Laws and the Social Costs of “Inaccurate” Stock Prices, 41 Duke L.J. 977, 979 (1992) (describing this state as one where “the market price of a stock corresponds to its fundamental value”).

45 See generally id. (describing the value of efficient stock prices and various regulations that attempt to promote efficiency).

46 See id. at 1005-17, 1017-24, 1028-34, 1035-39 (discussing capital allocation, market liquidity, the potential of management becoming overly concerned about maximizing the value of stock rather than the value of the corporation, the nature of the market for corporate control and how inefficient stock pricing may affect it, and other problems of inefficient stock prices).

47 See id. at 1019-20.

48 See id. at 1020 (describing the two social costs of losing liquidity as the "transaction costs of trading[ ] and the cost of holding non-optimal portfolios").
For markets to be efficient, information about the value of firms must be incorporated quickly and accurately into stock prices.\(^{\text{19}}\) This process involves two different tasks: production of information and pricing of information. Production of information involves searching for currently unknown information that affects prices. Pricing of information requires a process of analyzing information in order to determine its value, so that one may then trade based on discrepancies between price and value.

Production of information involves two different types of information: firm-specific information and general market information. Firm-specific information includes information about various attributes of the firm, such as the quality of its management, its business plans and past record, its financial position, and the success of the firm's research and development efforts. General market information includes information about the general conditions in which the firm functions, such as the prospects of competitors, the industry as a whole, and the local and global economy.

Pricing information comprises two distinct functions: analyzing information and trading. Analyzing information requires analyzing both firm-specific and general market information. Firm-specific information cannot be accurately priced in isolation. One cannot evaluate the future prospects of a corporation without knowledge about the estimated course of the local and global economies. Trading is the act by which information is communicated to the market. Trading can take one of two forms: direct trading or indirect trading through recommendations and advice to others.

For markets to be liquid, there must exist sufficient trading to enable most buyers and sellers to consummate transactions expeditiously. Liquidity is achieved as a result of three principal reasons: portfolio adjustments, consumption/investment adjustments, and divergence of opinions.\(^{\text{20}}\) Portfolio adjustments provide liquidity by causing constant changes in the composition of portfolios to bring them in conformity with investors' predetermined levels of risk and

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\(^{\text{19}}\) See Gismon & Kraakman, supra note 53 (giving a comprehensive description of the processes by which markets attain efficiency).

return. This kind of trading is random among investors. Consumption/investment adjustments create liquidity by effecting shifts of funds from investment to consumption and vice versa. This kind of trading is random when individuals’ decisions to reduce or increase savings are uncorrelated, but it is nonrandom when spurred by trends in the economy (for example, reduced savings following a recession). Divergence of opinions among market players creates liquidity by prompting market players with lower valuations to transact with investors with higher valuations. This kind of trading is partly random and partly nonrandom. Discrepancies between price and value vis-à-vis noise traders can be either random or non-random depending on how irrationally noise traders behave. Divergence of opinion among analysts is spread along a spectrum with some degree of correlation since valuation methods share many common characteristics.

B. The Relative Advantage of Analysts over Insiders in Providing Efficiency and Liquidity

1. Efficiency

Production of general market information is costly. It requires searching, sorting, and organizing information from a wide range of sources. Insiders have no advantage over analysts in producing general market information. On the contrary, analysts enjoy economies of scale and scope in performing this task. Knowledge gained with respect to one corporation in a particular industry can often be used with respect to another, and knowledge pertaining to the economy as a whole is useful in analyzing all corporations. Insiders do not characteristically produce general market information, and it is reasonable to assume that they will buy such information from analysts.71

Nor do insiders have an advantage with respect to pricing general market information.72 Here, too, it is reasonable to assume that

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71 As discussed later in this Article, analysts will probably be forced out of the market. It is unlikely that the sale of general market information to insiders would generate sufficient returns to sustain a competitive analyst market.

72 One oft-cited example is the failure of insiders to foresee the October 1987 market crash. See H. Nejat Seyhun, Overreaction or Fundamentals: Some Lessons
insiders will buy pricing services from analysts. Still, general market information that is produced and priced by a single analyst who sells her services to insiders will be inferior to general market information that is produced and priced by numerous analysts operating in a competitive market. Analysts enjoy a greater collective information base which gives them a greater likelihood of pricing accurately given their uncorrelated differing valuations.

Production of firm-specific information is a byproduct of managing the corporation. The more business changes occur, the more firm-specific information exists. The cost of producing firm-specific information has two components: creating business changes and learning about them. Naturally, analysts cannot affect business decisions, so they must learn of changes after they have occurred. Consequently, analysts’ production costs equal the resources spent on discovering firm-specific information.

Insiders, in contrast, can both affect business decisions and simultaneously “learn” about them. We call the first activity “information-producing management.” What is the cost of information-producing management? When insider trading is prohibited, insiders’ investment in managing the firm is a function of their compensation packages and the effectiveness of the applicable monitoring mechanisms. It is against this benchmark that the cost of information-producing management should be measured. Assume that under a restriction on insider trading, insiders will invest $100 in managing the firm and the value of the firm will be $1000. When insider trading is permitted, insiders will invest additional resources, or divert existing ones, to cause business changes that increase their trading opportunities. Certainly, in this case, more firm-specific information will be produced. But what is the cost of this additional information? This question cannot be answered in the abstract. Since insiders may create additional trading opportunities either by making poor business decisions or sound ones, one must consider the total effect of these decisions to determine their desirability. Assume that insiders invest $20 in order to gain $30 in

from Insiders’ Response to the Market Crash of 1987. 45 J. Fin. 1363, 1363-64 (1990) (concluding from an examination of aggregate insider transactions that the 1987 crash was largely unanticipated).

58 See Gilson & Kraakman, supra note 53, at 581. This is the essence of the efficient capital markets hypothesis: that no analyst will be able to beat the market process.
trading profits. The $20 investment may be in addition to the $100 previously invested in managing the firm or it may be part of it if resources are now diverted to increase trading opportunities. In either case, this is not the only effect of the policy change: The value of the firm would be affected as well. The value of the firm may go down, say to $800, or go up, say to $1200. That is, the attempt to capture additional trading profits could either increase or decrease the value of the firm, with no relationship to the trading profits. Assuming the potential for trading profits from poor and beneficial business decisions is equal, the expected additional value from information-producing management will be zero. The exact effect of permitting insider trading would ultimately depend on the compensation schemes and monitoring mechanisms in each specific firm. Therefore, for the purpose of our analysis, we assume no information-producing management—that is, that management decisions are not distorted by the desire to produce firm-specific information.

We are left with the “learning” cost of insiders. Because insiders are an integral part of management, the marginal costs of obtaining firm-specific information for insiders is zero. Moreover, the costs of gathering and organizing such information (for example, accounting) are borne by the corporation in the regular course of business. Therefore, no incentive is required to motivate insiders to learn of and process firm-specific information. Consequently, insiders have an advantage over analysts in producing firm-specific information. However, the more firm-specific information insiders disclose to the market, the less resources analysts will have to expend to this end. First, the disclosure duties placed on insiders, apart from restricting insider trading, reduce the analysts’ costs of producing firm-specific information. Second, even within the dis-

11 These facts suggest that the legal system should not grant insiders a property right or any other proprietary entitlement in the information. See Anthony T. Kronman, Mistake, Disclosure, Information, and the Law of Contracts, 7 J. Legal Stud. 1, 33-14 (1978) (arguing that one who deliberately acquires information must be allowed to benefit from it, but that there is no need to protect information acquired casually without a deliberate and costly search).

12 See, e.g., Douglas W. Diamond, Optimal Release of Information by Firms, 48 J. Fin. 107, 107 (1985) (demonstrating that when the cost of releasing information to the firm is lower than the aggregate expenditure incurred by investors to acquire the information independently, welfare is enhanced if the firm discloses the information).
creational boundaries set by the mandatory disclosure regulations, the presence of analysts causes corporations to adopt more revealing disclosure practices. Since analysts are repeat players in the capital market and can reward good and revealing disclosure practices and punish restrictive ones, corporations have an incentive to adopt revealing disclosure practices. Thus, at the end of the day, insiders’ advantage over analysts, in this respect, will be minimal.

As far as pricing firm-specific information is concerned, insiders enjoy greater proximity to the firm’s business, but they lack objectivity. Nevertheless, the conventional view maintains that insiders have a better understanding of the firm’s business. This assumption equates superior access with superior pricing ability while ignoring the problem of lack of objectivity. This view is based on empirical findings that insiders constantly outperform the market. However, the abnormal returns of insiders do not necessarily indicate that they are better than analysts at pricing firm-specific information.

First, insiders use firm-specific information after analysts have priced all available general market information. If insiders had to price both types of information simultaneously, their returns would likely be much lower. Second, insiders enjoy two advantages over

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7 Analysts can punish companies that engage in restrictive disclosure practices by recommending to their clients that they sell the stock of such companies—a recommendation that may cause the stock to crash. This is very similar to the “Wall Street rule.”

8 See Finnerty, supra note 53, at 1148; Seyhun, supra note 53, at 210–11.

9 Cf., e.g., Sugato Chakravarty & John J. McConnell, Does Insider Trading Really Move Stock Prices?, 34 J. Fin. & Quantitative Analysis 191, 191 (1999) (analyzing the “trading activity of a confessed inside trader, Ivan Boesky, in Carnation’s stock just prior to Nestle’s 1984 acquisition of Carnation,” and finding that “our tests are unable to distinguish the price effect of Boesky’s (i.e., informed) purchases of Carnation’s stock from the effect of non-insider (i.e., uninformed) purchases”). This result weakens the claim that insider trading has a better price discovery process.

10 As evidence of this likelihood, one may compare the lower returns of insiders in large firms—in which the ability to have a substantial advantage over firm-specific information is limited and macroeconomic factors have greater influence on firms’ performance—with the higher returns of insiders in small firms. This comparison supports our claim. See, e.g., Thomas Gowen et al., Bankruptcy and Insider Trading: Differences Between Exchange-Listed and OTC Firms, 47 J. Fin. 349, 361–62 (1992) (finding that insiders in smaller non-listed firms were the heaviest net sellers prior to bankruptcy, while weaker results were obtained with regard to insiders in larger listed firms); Seyhun, supra note 53, at 203 (demonstrating that insiders in smaller firms tend to trade on firm-specific information, while insiders in larger firms, who are less successful predictors of their own firms’ performance, tend to trade more on the basis
analysts: timing and immunity from outside competition. Insiders can use firm-specific information before analysts gain access to information without facing any competition from outsiders. Thus, insiders' abnormal returns are not necessarily the product of superior talent or skill and do not indicate that they are better at pricing firm-specific information. Rather, those returns are quasi-

of macroeconomic factors); id. at 201 (observing that "insiders in small firms earn substantially greater abnormal costs on the uniformly traded stocks than the insiders in large firms").

In addition, a study of insider trades in the Oslo Stock Exchange—which is a less efficient exchange compared with the markets in the United States—"during a period of lax enforcement of insider trading regulations" found that insiders earned "zero or negative abnormal" returns and were outperformed by mutual funds. B. Espen Eckbo & David C. Smith, The Conditional Performance of Insider Trades, 53 J. Fin. 467, 467 (1998). Similarly, a study of the profitability of insider trading on the Vancouver Stock Exchange—also a less efficient market than the markets in the United States—"where it might be argued that there are large informational asymmetries," found that, "despite being able to identify particular profitable insider trades, the insiders do not, over all their trades, outperform the outsiders." Robert Hennkel & Alan Kraus, The Effect of Insider Trading on Average Rates of Return, 20 Can. J. Econ. 588, 588 (1987) (emphasis omitted); see Ronald J. Daniels & Jeffrey G. MacIntosh, Toward a Distinctive Canadian Corporate Law Regime, 29 Osgoode Hall L.J. 865, 873–74, 877 (1991) (noting that Canadian markets are liquid and less efficient); Jeffrey G. MacIntosh, The Role of Institutional and Retail Investors in Canadian Capital Markets, 31 Osgoode Hall L.J. 371, 384 n.48 (1993) (noting that Canadian markets are illiquid).

See, e.g., Stephen H. Penman, A Comparison of the Information Content of Insider Trading and Management Earnings Forecasts, 20 J. Fin. & Quantitative Analysis 1, 1 (1985) (proposing that the timing of insider transactions relative to voluntary earnings forecasts is in and of itself, a valuable piece of information); Stephen H. Penman, Insider Trading and Dissemination of Firms’ Forecast Information, 55 J. Bus. 479, 491 (1982) (finding that insiders tended to buy (sell) their firm’s shares in the period immediately preceding favorable (unfavorable) earnings announcements and to sell (buy) shares shortly after favorable (unfavorable) announcements, concluding that insiders use their forecast information in trading and time their trades relative to the forecast date).

Indeed, empirical studies reveal the existence of an informational hierarchy effect among different insider groups. See, e.g., Kenneth P. Nunn Jr. et al., Are some insiders more “inside” than others?, 9 J. Portfolio Mgmt., Spring 1993, at 18.

Indeed, insiders are only able to better “predict” large or unexpected changes. See, e.g., John Elliott et al., The Association between Insider Trading and Information Announcements, 15 Rand J. Econ. 521, 528–30 (1984) (observing that the strongest evidence of information-related trading occurs around earnings changes, particularly for small firms); James H. Lom & Victor Niederhoffer, Predictive and Statistical Properties of Insider Trading, 11 J.L. & Econ. 35, 46–47 (1968) (posing that insiders
monopolistic rents, stemming from the insiders' exclusivity over nonpublic information.\footnote{For an example of insiders using information to their advantage at the expense of the public, see J-Chai Lin & John S. Howe, Insider Trading in the OTC Market, 45 J. Fin. 1273, 1283 (1990) (finding that insiders consistently made the right personal wealth maximizing decision: they refrained from purchasing stock until after the release of unfavorable information and from selling stock until after favorable information was released).}

In sum, insiders are not superior to analysts in producing general market information or in pricing information—be it firm-specific or general market information.

2. Liquidity

It is widely agreed that insider trading diminishes liquidity. This view is based on a theoretical model that suggests that market makers will offset the risk of trading against insiders by increasing the bid-ask spread.\footnote{See, e.g., Bagchet, supra note 55, at 13; Lawrence R. Glosten & Paul R. Milgrom, Bid-Ask and Transaction Prices in a Specialist Market with Heterogeneously Informed Traders, 14 J. Fin. Econ. 71, 72 (1985). One might argue that market makers would not be driven out of the market as a result of insider trading because they could protect themselves by adjusting the bid-ask spread. While this may be true, only a small portion of analysts are market makers, and even this small protection would come at the cost of liquidity.} Although the increased bid-ask spread argument is supportive of our view, we do not want to base our analysis solely on this argument for two reasons. First, this is not the only existing model in the literature. A competing model suggests that market makers can better compensate themselves by reducing the bid-ask spread and increasing the volume of trading.\footnote{See Thomas J. George et al., Trading Volume and Transaction Costs in Specialist Markets, 49 J. Fin. 1489, 1498 (1994).} Second, empirical studies that test the impact of insider trading on the bid-ask spread provide indeterminate results.\footnote{Compare Kee H. Chung & Charlie Charoenwong, Insider Trading and the Bid-Ask Spread, 33 Fin. Rev., Aug. 1998, at 1, 17 (establishing that "although specialists may not be able to detect insider trading in a timely fashion, they protect themselves in a general way with wider spreads for stocks with cross-sectionally higher insider trading"), with Bradford Cornell & Erik R. Sirri, The Reaction of Investors and Stock Prices to Insider Trading, 47 J. Fin. 1031, 1032 (1992) (finding that insider trading surrounding the acquisition of Campbell Taggart by Anheuser-Busch did not result in widening of bid-ask spreads), and Omesh Kim & Shobhiad Mum, Bid-Ask Spread and Ownership Structure, 18 J. Fin. Res. 401, 404 (1995) (finding "no evidence of a
We argue that the focus on the impact of insider trading on the bid-ask prices, as determined by an uninformed market maker who trades against informed insiders, mystifies the analysis. The uninformed market maker faces the problem of asymmetric information when trading either against analysts or against insiders: both groups have an information edge. However, trading by insiders imposes a much greater risk on the uninformed market maker. Insiders, due to their exclusivity over inside information, can manipulate the timing and volume of their trades, a fact which increases the risk of the uninformed market maker trading against them. By contrast, analysts, even when enjoying an informational advantage, will always hold diverging opinions as to the exact impact of the information on stock prices, and their trade orders will therefore diverge from one another. This, in turn, reduces the risk faced by the uninformed market maker. In addition, because analysts face competition from other analysts, they cannot manipulate or time their orders. Thus, trading by analysts presents the uninformed market maker with a much lower risk relative to trading by insiders.

Furthermore, the relative liquidity effects of insiders and analysts can be analyzed independently of the reaction of the uninformed market maker to informed trading. Assume a market without market makers, as is the case in several European countries. Trading in such markets occurs through direct matches between buyer and seller with initial liquidity provided by investors and noise traders. Would insiders provide greater additional liquidity relative to analysts? We contend that the clear answer is no. First, insiders have only one subjective valuation of the corporation. When the price equals this valuation, insiders will not trade. In a competitive analysts' market there is a wide range of

*positive relation between bid-ask spread and insider ownership* and finding *no relation between spread and insider trading*).

*The Paris Bourse, for instance.

*This is a trading system known as *continuous double auction markets without designated market makers*. The operation and effects of this system are quite similar to that of a continuous market with designated market makers. See Stoll, supra note 70, at 73.

*See id.

*Indeed, one study has found that the strongest evidence of information-related trading occurs around unexpected earnings changes. Elliott et al., supra note 82, at 528–30. Similarly, Albert S. Kyle shows that in a model with "a single risk neutral
diverging, subjective valuations." Consequently, there is a much greater probability that at any given time a sub-group of analysts will estimate that the price deviates from the value. Therefore, an analysts' market creates greater opportunities for trading.

Second, insiders are reluctant to hold stock inventories that will enable them to provide liquidity because they are risk-averse and hold undiversified portfolios. Their human capital is invested in the corporation, and the only way they can diversify is by placing their financial capital elsewhere. For this reason, they will be reluctant to invest their savings in the same corporation. Analysts, by contrast, hold diversified portfolios and adjust their portfolios frequently, which enables them to provide greater liquidity.

Third, insiders have limited resources relative to the analysts' market. Since the value of inside information is uncertain, it is difficult to borrow against such information. Moreover, it is difficult to sell such information to investors due to the inherent conflict of interest between insiders and outsiders. Once inside information is sold, insiders can diminish and even destroy its value by manipulating corporate decisions and business activities. Analysts as a group have greater financial resources, and they are able to sell their information to investors without the conflict of interest problem. In sum, because of their greater number of differing subjective valuations, their superior financial resources, and their diversified holdings, analysts will provide greater liquidity to financial markets than will insiders.

C. Insiders' Exclusivity or Analysts' Competition

As shown above, insiders do not have an inherent advantage over analysts in supporting efficient and liquid markets. Introduc-
ing the fact that insiders enjoy virtual exclusivity over inside information completely tilts the scale in favor of the analysts.** Granting insiders property rights in inside information confers upon insiders a virtual exclusivity over the pricing and processing of this information.

The fact that insiders face no substantial competition diminishes efficiency in two realms: the sale of firm-specific information and the provision of efficient pricing and liquidity to specific stocks. Before substantiating these claims, however, we need to address two preliminary issues: why the relevant market for determining insiders’ market power is each specific stock, and why insiders as a group are less competitive than analysts as a group.

One might argue that due to substitution among individual stocks, the demand for each individual stock is perfectly elastic, and hence it is the stock market as whole that should be the focal point of the analysis rather than each individual stock. The main reason for the substitution effect is that stocks are fungible—characterized only by risk and expected return. Consequently, the individual characteristics of any individual stock can be replicated by purchasing a portfolio of several other stocks.** Therefore, investors can substitute inefficiently priced stocks with insufficient liquidity for other stocks.

This argument runs into two problems: The first is theoretical and the second is empirical. The theoretical deficiency of the perfect substitution argument is that it assumes a perfectly efficient market already in equilibrium. This theory adopts a static view of the market and does not concern itself with the process by which markets attain efficiency. As explained earlier, markets become efficient through a dynamic process that involves spotting deviations between value and price and correcting them. Therefore, from the vantage point of information traders, the relevant market is the specific stock to which this process is applied at any given time.

The empirical flaw of the perfect substitution argument stems from

** For a different model applying the same insight to the impact of insider trading on liquidity, see Nicholas L. Georgakopoulos, Insider Trading as a Transactional Cost: A Market Microstructure Justification and Optimization of Insider Trading Regulation, 26 Conn. L. Rev. 1 (1993).

the fact that it implies no correlation between price and volume. The market price remains constant regardless of the quantity of stocks traded. Empirical studies, however, found many incidents of "price pressure," indicating that there is no perfect substitution among stocks. In other words, the demand curve for specific stocks slopes downwards from left to right."

In light of the fact that there does not seem to be perfect substitution among stocks, and given the dynamic process by which the market attains efficiency, the insiders' market power should be measured relative to the relevant stock, not the market as a whole.

Even if one accepts that the relevant market is each individual stock, it may still be argued that intra-firm competition among insiders would create a market as competitive as that of the analysts. This argument derives from the fact that in many firms there are numerous insiders, and competition among them will provide the same efficiency and liquidity as competition among analysts. This argument is problematic for several reasons. First, in many cases, the employees at the bottom of the corporate pyramid only have access to small pieces of information. They do not see the full picture that can only be seen by the managers at the top. As a result, the employees at the bottom cannot compete effectively with their managers in capturing the value of the information. Intra-firm competition based on employees holding different pieces of the puzzle is inferior to competition among analysts with similar sets of information.

Second, the intra-firm competition argument assumes that intra-firm competition among insiders will actually occur. When insider trading is open to everyone, however, the managers, wishing to maximize their returns, will impose various restrictions on their subordinates to prevent them from trading on inside information, thereby curtailing any potential intra-firm competition.

Third, even assuming a legal rule barring managers from restricting insider trading by their subordinates, intra-firm competition will not be as efficient as inter-analyst competition. Intra-firm competition will harm the firm because it undermines the firm’s ability to control its intellectual property and its disclosure policy. Acting to maximize their gains, employees will diminish and even destroy the value of intellectual property—such as research and development results, trade secrets, and sensitive negotiations—to the firm by prematurely disclosing this information to the market through trading. Furthermore, the information flow within the firm will be hindered, preventing valuable information from reaching the management in a timely fashion. Unable to restrict insider trading by employees contractually, managers will waste resources to prevent trading by their subordinates by other means (either to protect the firm’s intellectual property or their own potential profits). For instance, managers may fire valuable employees for trading on inside information under the false pretense of inadequate job performance. In both cases, the firm will be harmed, either due to damage to its intellectual property or due to the wasteful enforcement efforts of the managers.

Having demonstrated that each specific stock is the relevant market and that intra-firm competition is inferior to competition among analysts, we can now present and analyze the two inefficiencies associated with granting insiders property rights to inside information.

1. Inefficient Provision of Firm-Specific Information and the Problem of Intertwining Pricing and Management

To see the insiders’ adverse impact on the provision of firm-specific information, one must focus on the stock pickers who value information trading over liquidity trading. As a result, stock pickers create a demand for firm-specific information. Seemingly, this demand may be satisfied either by analysts or by insiders. For the reasons discussed above, though, insiders will hoard firm-specific information, and only analysts will supply this type of information to stock pickers. Assume that insider trading is allowed and analysts exit the market, leaving the insiders as the sole source of firm-

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77 See supra text accompanying notes 70–73.
specific information. Economic theory suggests that because insiders can capture the full value of inside information through trading, they will charge stock pickers supracompetitive prices for this information. But the case at hand introduces an additional interesting twist to the standard story.

Insiders will disclose inside information to the market only after they have exploited its value through trading. Realizing this, stock pickers will cease to trade on information and become, in contrast to their initial preference, liquidity traders. An attempt to strike a deal between stock pickers and insiders to buy unexploited firm-specific information will fail for two reasons: the inherent conflict of interest of insiders vis-à-vis stock pickers and the public good characteristics of information.

The first problem stems from the ability of insiders to diminish or even destroy the value of the information sold by affecting business decisions. Insiders cannot promise not to change business decisions owing to their fiduciary duties: they can only commit not to trade on inside information. This commitment will not eliminate their incentive to destroy the value of the information sold because changing business decisions create still other opportunities for selling the newly “produced” information. To eliminate the insiders’ incentive to destroy the value of the information after its sale, insiders will have to make the twin commitments to abstain from trading on future nonpublic information and to abstain from selling such future information to a different buyer. Insiders will make these commitments only if the expected profit from insider trading is lower than the expected profit from the sale of the information. However, whenever the information is sold to numerous investors, competition among them will result in a lower aggregate return from trading than the return that the insider can make. Moreover, limiting the sale to one group of buyers will present the virtually impossible task of trying to calculate the present value of all future trading profits from firm-specific information. Furthermore, selling the information to a single buyer will just replace one true insider with another “artificial insider,” and, even assuming a one-time

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20Cll] On Insider Trading

One could argue that insiders could offer stock pickers compensation for future changes affecting the value of the information sold. Doing so, however, is irrational for insiders who could have captured the entire value of the information through trading.
sale of all future firm-specific information is possible, the demand of stock pickers for information will still not be satisfied.

The second problem, the nature of information as a public good, implies that insiders will not be able to capture the entire value of the information by selling it. As a public good, the value of information is maximized when it is disseminated to any person who values it positively—in our case, all stock pickers. Insiders, however, cannot simultaneously reach all the potential buyers of the information and charge them. Insiders can reach subgroups of buyers, for example, by a sale to a television station, but this will not generate a return greater than the return from insider trading.

When insider trading is prohibited, insiders cannot trade on firm-specific information, nor can they sell such information. Consequently, insiders have no incentive to destroy the value of firm-specific information that is disclosed to the market. In the absence of preemptive competition from insiders, analysts will enter the market. Lacking the ability to influence business decisions, analysts cannot destroy the value of disclosed information. Moreover, operating in a competitive market, analysts cannot appropriate the entire value of the information; they will only receive a competitive return on their investment in information either through trading or through sales to stock pickers. In any case, a market for information will develop and the stock pickers' demand for information will be satisfied."

2. Inefficient Pricing and Reduced Liquidity

Comparing insiders and analysts as two alternative suppliers of a service—providing efficient pricing and liquidity to a specific stock—reveals that the insiders, being relatively immunized from competition, will provide inferior service at a higher price.

Absent meaningful competition, insiders will take various actions to exploit and protect their unique market position. First, insiders will utilize their positions within their firms to influence

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"As will be explained later, the competitive information market affected by analysts creates a positive externality for stock pickers who value investing based on freely disclosed information over liquidity trading. Although the efficient market theory suggests this kind of trading cannot be profitable, mere trading creates utility. Under this view, these investors can be labeled as noise traders."
business activities. For instance, insiders might cause the firm to enter a specific transaction, then renge on the agreement, and finally settle the dispute, all for the sole purpose of creating better opportunities for trading. Similarly, insiders might increase the volatility of the stock by investing in excessively risky projects. This kind of “management” hurts the productive efficiency of the firm. Analysts, as outsiders, have no similar ability to affect business activities.

Second, insiders will attempt to protect their privileged position over firm-specific information. To this end, they may employ expensive and over-burdening monitoring devices to prevent underlings from using inside information. This kind of behavior harms the productive efficiency of the firm. Analysts, by contrast, cannot prevent other analysts from handling information as they see fit.

Finally, insiders will exploit their privileged market position by manipulating the timing of disclosure of firm-specific information to increase their personal gain. This, in turn, will harm efficient pricing. To illustrate this point, compare two scenarios. In the first,

[Notes]

79 See, e.g., Lucian Arye Bebchuk & Christine Jolls, Managerial Value Diversion and Shareholder Wealth, 15 J.L. Econ. & Org. 487, 487-88 (1999) (finding that agents will take business opportunities presented to the firm and turn them to their own advantage); Haft, supra note 48, at 1059 (pointing out that managers may “manipulate business decisions with an eye to potential trading profits”).


81 Currently, top managers employ compliance programs to satisfy their fiduciary duties in assuring the compliance of their corporation and employees with legal restrictions in many areas (securities laws, antitrust law, sexual harassment, and the like). See, e.g., In re Caremark Int’l, Inc., Derivative Litig., 698 A.2d 959, 962-63 (Del. Ch. 1996). Although these programs are employed and enforced by the corporations, their effectiveness stems from the threat of criminal prosecution as well. Under a legal regime permitting insider trading, it will be much more costly to achieve a similar level of compliance from employees.

a piece of nonpublic information is disclosed to the public. Under a rule of disclose or abstain, firms will optimize the timing of disclosure to protect their value. Analysts operating in a competitive market will react to the new information as quickly as possible. They will immediately price the information and trade on it lest someone else beat them to it.

In the second scenario, an insider holds a piece of inside information, together with the power to decide whether and when to disclose or trade on it. If delaying disclosure provides the insider with better trading opportunities and increases her expected profits, she will postpone the disclosure. Conversely, if premature disclosure provides the insider with a better opportunity to profit, she will disclose prematurely, even if doing so has grave consequences for the corporation. Here, too, the actions will harm not only efficient pricing but also the productive efficiency of the firm.

Whatever strategy insiders employ to increase their profits, their ability to manipulate the timing of disclosure and trading is harmful. Either the efficiency of the market is hindered per se, or efficiency is promoted but only at the cost of quasi-monopoly pricing and harm to productive efficiency. In this case, the cost of the market distortions caused by insiders is born not just by the investors trading in the stock, but also by all the economic actors who rely on efficient and liquid financial markets.

In addition to harming efficient pricing and productive efficiency in order to capture supracompetitive rents, the insiders’ excessive market power has the undesirable effect of diminishing liquidity in financial markets. As explained earlier, permitting insider trading will cause information traders to exit the market and consequently reduce the number and volume of trades. This, in turn, will harm liquidity traders, as it will raise the cost and reduce the speed of executing transactions.

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See Ferber, supra note 13, at 623; Seligman, supra note 13, at 1121.

Kenneth E. Scott, Insider Trading: Rule 10b-5, Disclosure, and Corporate Privacy, 9 J. Legal Stud. 801, 814–815 (1980) (discussing that trading on inside information may harm the corporation by providing information at times when accomplishing the business goals requires secrecy). One such example is SEC v. Texas Gulf Sulphur Co., 401 F.2d 833 (2d Cir. 1968), where insiders traded over an extended period of time before publicly disclosing the discovery of ore and before the corporation acquired all the land. Id. at 843–47.
Now the choice becomes clearer. Permitting insiders to trade on inside information will drive analysts out of the market, bestowing upon insiders exclusive control over the provision of efficiency and liquidity to financial markets. Restricting insiders from trading on inside information, coupled with corporate disclosure duties, will allow a market of analysts to develop. A well-developed and competitive analysts' market will provide superior efficiency and superior liquidity at a lower cost.\footnote{The analysis so far was conducted from a market point of view, not from the point of view of shareholders. Our conclusions hold true, however, with even greater force when the shareholders' point of view is adopted. Given the agency problem between managers and shareholders, granting insiders exclusive control over the disclosure and use of inside information in addition to their control over business activities is potentially harmful for shareholders. Dispersed shareholders do not monitor managers, and entrusting managers with the role of monitoring themselves is a sure recipe for control failures. Analysts, in contrast, constantly follow stocks and monitor the performance of managers. See, e.g., Dirks v. SEC, 463 U.S. 646, 646 (1983) (illustrating a broker-dealer who managed to track down a fraud allegation). As we plan to argue in a separate paper, by performing this role, analysts mitigate the agency problem between managers and shareholders, and thus benefit the shareholders. Indeed, a recent empirical study has found that 92\% of the corporations studied enacted policies restricting insider trading, and 78\% adopted blackout periods during which insider trading is prohibited. The latter policy resulted in a narrower bid-ask spread. See J.C. Bettis et al., Corporate policies restricting trading by insiders, 57 J. Fin. Econ. 191, 218 (2000). These corporations are most likely restricting insider trading because it has a harmful effect on their shareholders and their companies.}

Despite the many vices of granting insiders the right to trade on nonpublic information, it does not necessarily mean that shareholders will restrict insider trading if left to their own devices. Shareholders, in their capacity as liquidity traders, might have different concerns. Liquidity traders do not lose on average to insiders and they do not care about aggregate efficiency per se. Liquidity traders will make the same return whether the market has a high level of efficiency or a low level of efficiency. As long as shareholders can prevent insiders from destroying the firm's value (that is, control the agency problem), liquidity traders do not perceive insiders' control of the pricing of information as a "cost."

Liquidity traders do care about liquidity, however. Liquidity traders and noise traders provide markets with initial liquidity. Trading by insiders provides additional liquidity. Although lower than the additional liquidity analysts can provide, the added liquidity provided by insiders in combination with the initial liquidity...
may suffice to provide acceptable liquidity in a particular stock. In this case, liquidity traders may prefer to grant insiders property rights in inside information in exchange for lower salaries.

As analyzed above, the negative effects of this course of action are born by the market.\(^{105}\) Even if liquidity traders do not care about efficiency, efficient pricing is important for the economy as a whole.\(^{106}\) Efficient pricing is important for the market for corporate control, for monitoring and controlling the management agency problem, for the allocation of resources in IPOs and secondary offerings, and for other transactions in the economy that are based on market prices.\(^{107}\)

### III. Positive Externalities of the Analysts’ Market

The introduction of a comprehensive market perspective enables us to bring another phenomenon to light. A competitive analysts’ market offers several types of positive externalities, of which we will focus on two: the information market and the investment banking industry. In the following Sections, we analyze these positive externalities and show that they would be lost if insider trading were permitted, even subject to a contractual regime. For this reason, we conclude that the prohibition on insider trading must be retained.

\(^{105}\) See Naveen Khanna et al., Insider Trading, Outside Search, and Resource Allocation: Why Firms and Society May Disagree on Insider Trading Restrictions, 7 Rev. Fin. Stud. 575, 575 (1994) (showing that even though insiders’ competition with informed outsiders reduces the “equilibrium quality of outside information,” allowing insider trading inflicts different “social and private costs”: consequently, “entrepreneurs may prefer to allow insider trading even when it is not socially optimal”).

\(^{106}\) Following United States v. O’Hagan, 521 U.S. 642 (1997), some scholars suggested that the Supreme Court’s decision has transformed the prohibition on insider trading into a mere contractual default rule. See, e.g., Saikrishna Prakash, Our Dysfunctional Insider Trading Regime, 39 Colum. L. Rev. 1491, 1506 (1999). We disagree: A proper reading of O’Haganimplies a key distinction between inside information in the classic sense—information originating from the affected firm used by one of its insiders—and a different type of inside information—information generated by outsiders who are not employees of the affected firm. While the prohibition on trading involving classic inside information is clearly mandatory, and cannot be contracted around, the prohibition on trading involving information generated by outsiders is subject to contracting like any other property interest.

\(^{107}\) See Kahan, supra note 64, at 1005–17 (discussing all of the costs of inefficient markets and the role of regulations in curing these inefficiencies).
A. The Information Market

In the analysts' market, some analysts never disclose their information directly. Rather, they use their informational advantage through trading. These analysts usually work for major institutional investors. Other analysts, however, disclose their findings to the public. Of the analysts in this group, some disclose information on a regular basis as part of the service they offer to clients, while others disclose only part of the information they possess as part of promoting and advertising their services. The disclosure of analytical information allows market participants to judge, ex post, the quality of the analyst.19

The result is the creation of an information market. Financial newspapers, television channels, radio stations, web sites, and other sources offer a wide range of financial information in a very accessible format for free or for a low fee. It is common for analysts to share their informational advantage through interviews, private columns, and commentary on these information channels.

Analysts' competition, in short, supports the development of the information market, which leads to additional positive externalities. First, the information market improves the efficiency of the capital market. Every analyst who discloses her informational advantage provides other analysts with additional information that assists them in improving their pricing. Second, the information market enhances the level of investment activity in the capital market. As information reaches a larger segment of the public, more people become aware of financial events and become acquainted with financial markets. The level of understanding of the investment process is increased and the new knowledge helps build confidence and trust in the market.20 Consequently, more people become liquidity traders (adding the stock market as an alternative for saving) and stock pickers (either responding to analysts' marketing efforts and buying their services, or using freely disclosed information as a basis for their own independent investments). In-

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19 For instance, the financial papers publish periodic comparisons between analysts' recommendations and stock prices.
20 Cf. Lawrence M. Ausubel, Insider Trading in a Rational Expectations Economy, 80 Am. Econ. Rev. 1022, 1023 (1990) (arguing that confidence in the market is important and that due to the effect of diminished investor confidence, “insiders are made better off” if they can “precommit not to trade on their privileged information”).
creased investment activity increases the demand for analysts and lowers the cost of capital for firms.

Insiders who enjoy exclusivity over inside information thwart the development of the information market. Absent competition, insiders have no incentive to quickly disclose inside information. Insiders do not cater to clients: they gain only indirectly from increased investment activity. Moreover, insiders cannot sell their informational advantage. Severe conflicts of interest and asymmetric information doom negotiations between insiders and potential buyers. Similarly, an attempt to sell the information to the public (for example, to a television channel or a newspaper) will not generate a price equal to the value of the information to the insiders because information is a public good. In sum, insiders, unlike the analysts’ market, are unable to provide the positive externalities that exist in a well-developed information market.

B. The Investment Banking Industry

To see the effect of the analysts’ market on the investment banking industry, assume that insider trading is permitted. For the reasons explained above, the insiders will drive the analysts out of the market. Now suppose that a corporation wishes to make an IPO. Insiders will find it difficult to issue shares directly to investors. Investors will be skeptical of purchasing shares since insiders have incentives to manipulate the corporation’s management in order to increase their earnings. Also, there are no analysts to monitor corporations and their management or to disclose information, so investors will be hesitant to purchase shares in a corporation they know little about and which will not be monitored very carefully. Insiders will have to employ an investment bank to underwrite the offering in order to persuade investors to buy the shares.

The investment bank will have to employ an analyst in order to price the shares. The analyst will study all currently available information about the corporation, competitors, the industry as a

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102 See Robert Cooter & Thomas Ulen, Law and Economics 40–41 (2d ed. 1997) (noting that public goods are both nonexcludable and nonrivalrous).
103 See supra notes 100–01 and accompanying text.
104 See supra note 106.
whole, and the economy in general. She will set a price for the shares, and they will be issued. From that point on, the analyst has no use for the knowledge she accumulated regarding the corporation. There is no point in following the stock because insiders will beat outsiders by capitalizing on new inside information. Pricing by insiders, nonetheless, cannot be trusted as a basis for a secondary offering due to the conflict of interest problem. Consequently, a secondary offering will entail similar costs to that of the IPO.

Furthermore, without analysts, insiders who offer shares of their corporation will also have to convince investors of their ability to provide liquidity. Insiders will be forced to provide liquidity arrangements in order to attract investors. However, whatever arrangement insiders adopt to persuade investors to buy shares at the IPO, it will generate no positive spillovers for other corporations going through an IPO. Each corporation will have to offer its own liquidity assurances.

Restricting insider trading, on the other hand, will allow the analyst to use the knowledge accumulated in the IPO process by following the stock and pricing it on an ongoing basis. Efficient, continuous pricing by analysts introduces economies of scale and scope. First, the investment made during the IPO is not lost. Analysts can update their pricing, bearing only the incremental cost of the update. Second, the knowledge accumulated in the analysts' market can be reused and deployed in the service of investment banks whenever a new IPO shares similar characteristics with an earlier IPO. The service will be offered to investment banks on competitive terms. Third, investment banks will find the process of a secondary offering easier and cheaper when the shares of the corporation are already traded in an efficient market in which prices are determined by analysts. Indeed, under certain circumstances, even the SEC relaxes the registration and the disclosure requirements for secondary offerings. This is a clear example of

\[\text{Footnotes}\]


116. See Fox, supra note 115, at 1008 (showing how the market efficiency rationale explains "shelf" registration under Rule 415 of the Securities Act of 1933); Gordon & Kornhauser, supra note 115, at 810 (examining the SEC's use of the efficient market hypothesis in formulating integrated disclosure requirements).
the reduced costs of a secondary offering generated by the existence of ongoing efficient pricing by analysts.

Furthermore, in a well-developed analysts' market, investors who buy shares in an IPO will concern themselves only with the business prospects of the corporation and the quality of its management. Efficiency and liquidity in the secondary market will be provided by the analysts. The existence of the analysts' market creates economies of scale in this respect as well. Once the market is in place, it can absorb many new IPOs and secondary offerings. By guaranteeing efficient pricing and liquidity, the analysts' market lowers the cost of issuing shares for all corporations, sparing each individual corporation the need to provide efficiency and liquidity on its own.

A well-developed investment banking industry, in turn, attracts firms from countries with less developed markets to issue shares and list them in the more developed market. The developed analysts' market and investment industry in the United States attract firms from all over the world.11 This process carries with it many benefits: It increases the activity and profits of the investment banking industry and its peripheral markets, it provides American investors with a wider range of investment opportunities, and it increases the demand for the services of analysts. None of these positive externalities can be realized without an analysts' market.

IV. THE CASE FOR NEGATIVE PROPERTY RIGHTS IN INSIDE INFORMATION

Given the important positive externalities generated by analysts' competition, and given that none of them would arise if insiders were permitted to appropriate and exploit inside information, we submit that efficiency dictates that insiders be banned from trading on inside information. Combining this conclusion with the property

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11 While non-U.S. companies raised only $7 billion in the American market and "of the 420 non-domestic companies registered with the U.S. SEC, most were Canadian" in 1989, "in 1998 non-U.S. issuers offered more than $200 billion in the United States," Linda C. Quinn, International Regulation of Cross-Border Offerings and Listings of Securities—A Window of Opportunity, International Securities Markets 2 (1999). In 1999, "more than 1,100 non-U.S. companies from 56 countries [were] registered with the SEC," Id.
rights entitlements framework, we posit, for the first time, that the challenge of insider trading presents a compelling case for assigning a "negative property right" to insiders with respect to inside information. The effect of a negative property right is to deny the grantee the power to appropriate a socially valuable resource—in our case, information—in order to allow a more efficient regime to develop. In the present context, the ban on insider trading accomplishes just that. Without the ban, insiders, because of their proximity to the firm, would be able to appropriate and exploit nonpublic information. This ability would adversely impact the information market and the economy on the whole. The ban on insider trading—or, as we see it, the assignment of a negative property right to insiders—is necessary to eschew the suboptimal regime that would otherwise develop. As a result of the ban, more efficient information markets and financial markets can evolve.

There remains the question of why the property right should not be assigned positively to a specific analyst. Ex ante, it is impossible to determine which analyst values the information at issue most highly. Allowing analysts to compete over nonpublic information is, therefore, the only viable way to ensure that, on average, the analyst who places the highest value on information will obtain it first. Because analysts operate in a competitive environment to maximize the return on investment in information, the analyst who first obtains nonpublic information will have to process the information to the market as quickly as possible, lest she be beaten by other analysts who seek the same information. The optimal property regime with respect to information—the quintessential public good—is one of free competition. To effect this regime, however, it is necessary to assign a negative property right to insiders to exclude them from the group of legitimate appropriators. As we

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20 For discussion of the different aspects of information as a public good and a collective good, see Kimberly D. Krawiec, Fairness, Efficiency, and Insider Trading: Deconstructing the Coin of the Realm in the Information Age, 95 NW. U. L. Rev. 443, 447, 48 (2001).
showed, the use of a negative property right in the initial stage to neutralize the insiders’ inherent advantage not only improves the efficiency and liquidity of financial markets but also generates various positive externalities that otherwise would not have come to exist.

V. EXTENSIONS OF THE ANALYSIS

In addition to providing a new efficiency justification for the ban on insider trading, our analysis sheds new light on two unresolved legal problems: selective disclosure and warehousing. Our analysis allows us to illuminate the conflicting goals and the tensions involved in these issues, as well as the parameters relevant to the policy decision that attempts to resolve these tensions.

A. Selective Disclosure

For a variety of reasons, many corporations do not attract analysts’ coverage.\(^{126}\) Analysts may overlook corporations because of their size, country of origin, or industry affiliation. In all of these cases, the cost of gathering and processing private information to the market does not guarantee any individual analyst a sufficient return to justify the coverage. The value of the information is dispersed in the market and lost without any benefit to the shareholders.

When insiders are restricted from trading, they may selectively disclose new information to analysts in order to increase the returns to the shareholders, and, indirectly, to themselves.\(^{124}\) In this way, the prohibition on insider trading fosters the practice of selective disclosure. Naturally, the analysts who receive the information enjoy a timing advantage over the market, which guarantees them

\(^{126}\) Companies that fail to attract analyst coverage are colloquially called “market orphans.” See Sanford B. Kaynor Jr. & Michael Pereira, Orphan Story, The Daily Deal (N.Y.), Aug. 29, 2001, at 22.

\(^{124}\) In light of the “personal benefit” test set forth in *Dirks v. SEC*, 463 U.S. 646 (1983), the common view was that selective disclosure to analysts does not violate insider trading restrictions as long as the insiders are not attempting to gain personal benefit from the disclosure. See, e.g., Paul P. Bruntas Jr., Note, Rule 10b-5 and Voluntary Corporate Disclosures to Securities Analysts, 92 Colum. L. Rev. 1517, 1529 (1992) (“The *Dirks* decision has been widely construed as allowing considerable latitude in corporate disclosures to analysts.”).
higher returns on their investment in information. In exchange, these analysts engage in continuous monitoring and coverage of the relevant firm and provide the firm with better liquidity and pricing for its shares. In addition, the analysts provide the firm with better monitoring of the management and a valuable external evaluation of its proposed business strategy. Finally, selective disclosure allows management to disclose to analysts pieces of sensitive information that cannot be disclosed in their pure form to the whole market. Such disclosure improves efficient pricing and reduces analysts' need to expend resources on searching for firm-specific information.

From a property rights perspective, the practice of selective disclosure temporarily puts the rights to inside information in the hands of a small group of analysts rather than immediately granting the rights to the market as a whole. In this light, selective disclosure substitutes "immediate-all-analysts'-competition" with a "temporary-selected-analysts'-exclusivity." Admittedly, the temporary exclusivity granted to the selected analysts generates the same ill effects associated with insider trading, in particular, reduced liquidity and harm to analysts outside of the selected group. Yet, for small companies whose shares are traded with low liquidity, it is a necessary step on the way to competitive analyst coverage. In this sense, the exclusivity generated by selective disclosure is analogous to that created by patent or copyright protection. In all cases, the loss associated with the grant of temporary exclusivity is presumably outweighed by the ensuing long-term benefits. The practice of selective disclosure is also advantageous to shareholders because it enables them to substitute the potential gains from insider trading in the form of lower salaries for improved analysts' coverage and superior liquidity and pricing.

Seemingly, analysts outside of the selected group would lose when trading against the selected group, and thus, would avoid trading in that stock. The SEC's newly enacted ban on selective disclosure.

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13 Id. at 141–42.
disclosure mandates equal timing of disclosure, and thus, protects the analysts who are not part of the selected group. Is the new rule desirable? This rule improves competition among analysts, and thus, its effect on large companies with wide coverage by analysts and high liquidity is clearly desirable. Indeed, with respect to such companies the new rule is consistent with our analysis.

The problem is the effect of the new rule on small companies with low liquidity, companies that fail to attract analysts' coverage. The equality of timing mandated by the SEC promotes potential access to all analysts but sacrifices actual access by a few selected analysts. It must be borne in mind, however, that the out-of-the-inner circle analysts whom the new rule protects declined to cover the stock in the first place. Thus, under the new equal timing rule, full-scale competition would not leave a sufficient return on investment for any individual analyst.

Moreover, instead of the theoretical equality that the SEC is attempting to promote, the practice of selective disclosure preserved practical equality with respect to the right to become an actual analyst of the stock since all analysts could compete over offering their services to insiders. Insiders will prefer to limit the timing advantage and increase the inner circle in order to limit the ability of the selected group to exploit its exclusivity and improve the analysts' coverage. Indeed, insiders' attempts to limit the power of the selected group can be inferred from the gradual increase in the number of corporations using "open conference calls," even before the proposed regulation that mandates equal timing. Opening a

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1 See SEC Rules 100(a), 100(a)(1), and 100(a)(2). Regulation FD, 17 C.F.R. § 243 (2001). For a view supporting the equal timing principle, see Schuman, supra note 13.

2 The SEC published the proposed FDR in Exchange Act Release No. 42259, Fed. Reg. Proposed Rule Vol. 64 pg. 72590 (2000), reprinted in [Transfer Binder 1999-2000] 1917 Fed. Sec. L. Rep. (CCH) ¶ 82,846 (Dec. 30, 1999). A 1998 survey conducted by the National Investor Relations Institute ("NIRI") of its member companies found that 83% of the companies conduct conference calls for analysts (up from 73% in 1996); 27% of the companies allow individual investors to participate and 14% invite the media to participate; 89% of the companies (up from 66% in 1996) tape their conference calls for later playback via toll-free number (59%) or toll number (34%). National Investor Relations Institute, NIRI Releases Follow-up Survey on the Growing Use of Communications Technology in the Practice of Investor Relations, at http://www.niri.org/publications/alerts/cf151898.cfm (May 18, 1998). Another survey conducted by NIRI in June 1999 found that 84% of the NIRI corporate members surveyed conduct conference calls with analysts; 55% of those
conference call to all interested investors increases dramatically the members of the "selected group" and thus erodes almost completely the exclusivity problem.\textsuperscript{15} Indeed, the proposed regulation treats an open conference call as a method satisfying the equal timing requirement.\textsuperscript{16}

Of course, even in small and illiquid companies, selective disclosure can be abused by insiders in violation of the criminal restriction on insider trading and in breach of their fiduciary duties.\textsuperscript{17} Conspiring with "fake analysts," tipping the "palace guards," rewarding analysts for favorable recommendations, and rewarding institutional investors for passivity ("vote buying") are just a few examples.\textsuperscript{18} Given that selective disclosure can either promote or diminish efficiency, the question becomes: Is it desirable to ban selective disclosure across the board as the SEC's rule mandates, or would it be preferable to exempt small and illiquid companies and let market forces regulate them?

A complete ban will minimize the occurrence of abusive selective disclosure while simultaneously destroying the benefits that could be accrued to small and illiquid companies from efficient selective disclosure. Such a result could be justified if one believes that abusive selective disclosure considerably dominates efficient

\textsuperscript{16} See Langevoort, supra note 5, at 1040–44.
\textsuperscript{17} See John C. Coffee Jr., Is Selective Disclosure Now Lawful?, 1997 N.Y. L.J. July 31, 1997, at 5 (detailing the abuses of selective disclosure).
selective disclosure. Judging from the dramatic increase in the use of open conference calls, it seems clear that for small companies, selective disclosure is merely an interim stage on the way to achieving competitive analytical coverage.

Allowing the market to regulate selective disclosure by small and illiquid companies will create a system that preserves efficient selective disclosure while discouraging abusive selective disclosure. The ability of the market to regulate selective disclosure efficiently rests on its ability to efficiently enforce fiduciary duties and insider trading restrictions. Given that enforcement is the key issue, the potential for abuse of selective disclosure is no different than that of any other fiduciary duty or illegal insider trading. For instance, insiders can buy institutional investors' passivity through many other preferential deals—for example, private placement of preferred shares—without resorting to selective disclosure. To be sure, in the case of selective disclosure, it is difficult to prove a breach of fiduciary duties due to the inherent presence of mixed motives. Yet, no complete ban is imposed on such transactions. Indeed, alongside the legal sanctions, other non-legal market mechanisms, such as the market for corporate control, the market for managers, and reputation, work to reduce such manifestations of the agency problem.  

18 There is still a risk that small firms will be abusive. We contend that selective disclosure generates important benefits for small businesses—benefits that outweigh, in our opinion, the threat of abuse. Moreover, these benefits justify relying on the market to control the potential for abusive conduct.

19 See, e.g., Edward B. Rock, Controlling the Dark Side of Relational Investing, 15 Cardozo L. Rev. 987, 989 (1994) (discussing situations where “an investor acquires a large (for example, 9.5%) interest in the firm at a discount in exchange for protecting incumbent managers from displacement or, more generally, from threats to their autonomy”).

Similarly, regardless of the possibility for selective disclosure, insiders can circumvent the prohibition on insider trading by using non-insider collaborators. This strategy is difficult to detect. The response is that as long as the legal sanctions create a sufficient deterrent to control and limit the number of violations, an analysts' market can function. Enforcement does not have to be perfect; it just has to be sufficiently effective to afford analysts a sufficient profit margin. Judging from the flourishing analysts' market in the United States, the enforcement system currently meets this standard.

B. Warehousing

Warehousing is a practice that enables bidders to gain control of a target corporation by enlisting the help of a group of related investors.\(^\text{133}\) The bidder discloses her intention to a selected group of related investors who buy the shares of the target corporation.\(^\text{134}\) When the tender offer is announced, the group tenders the shares to the bidder for the premium offered.\(^\text{135}\) This group “warehouses” the shares for the bidder in exchange for the takeover premium.\(^\text{136}\)

Warehousing increases the probability of a successful takeover by avoiding holdouts and shortening the time needed for shareholders’ response.\(^\text{137}\) Whether this kind of strategy increases

\(^\text{133}\) See Roger J. Dennis, This Little Piggy Went to Market: The Regulation of Risk Arbitrage after Boesky, 52 Alb. L. Rev 841, 879 n.204 (1988).

\(^\text{134}\) See Stephanie F. Barkholz, Comment, Insider Trading, the Contemporaneous Trader, and the Corporate Acquirer: Entitlement to Profits Disgorged by the SEC, 40 Emory L.J. 537, 561 (1991).


\(^\text{136}\) Id. at 1134 (“To the bidder, ‘warehousing’ may ‘lock up’ the target’s shares in friendly hands; to the institution, warehousing offers the opportunity for a swift premium when the shares are resold in the tender offer.’”). Given the consent of the bidder to the purchase, there is no breach of fiduciary duty towards the source of the information. Consequently, there is no fraud, and no violation of Rule 10b-5 of the SEC. However, the SEC restricts this practice through Rule 14e-3(a) of the SEC, requiring no breach of fiduciary duty. Since fraud is not required, the validity of Rule 14e-3 was challenged. The Supreme Court did not respond to the challenge. United States v. O’Hagan, 521 U.S. 642, 672 n.17 (1997) (“We leave for another day, when the issue requires decision, the legitimacy of Rule 14e-3(a) as applied to ‘warehousing’ . . . .”).

\(^\text{137}\) See MacKey, supra note 6, at 18-19; Seligman, supra note 135, at 1134; Barkholz, supra note 134, at 561 n.146 (“Warehousing lessens the number of possible hostile
efficiency in the market for corporate control is subject to great debate. To allow us to analyze the more difficult case, we will assume, arguendo, that this strategy promotes efficiency in the market for corporate control.

Liquidity traders who follow the buy and hold strategy will not be harmed by warehousing. Since liquidity traders do not react to information and changing prices, they will not sell to the selected group. Rather, they will continue to hold until the tender offer is announced. It is the analysts who are harmed. As prices rise due to the buying of the selected group, analysts, being ignorant about the potential takeover and being unable to differentiate noise trading from warehousing, will interpret the price increase as overvaluation. Analysts will then sell the shares only to discover that they are losing takeover premiums. Analysts will not receive a normal return on their investment in information, and they will routinely underperform the market.

In other words, the analysts' market is in danger from a different kind of "insiders"—"outsiders," who hold valuable private information about the corporation. The "outside private information" is not produced within the corporation but has an effect on the valuation of the corporation. From the analysts' point of view, it makes no difference whether these "insiders/outsiders" trade in violation of a fiduciary duty to the bidder or with the bidder's blessing; in both cases, the analysts will lose. To the extent that takeover premiums constitute a substantial part of a normal market return,
consistently losing these premiums will drive the analysts out of the market. Only if takeover premiums constitute an insubstantial part of the normal market return can warehousing be tolerated by analysts.

Our analysis points to a tension between promoting efficiency in the market for corporate control and promoting efficiency in the capital market. If the selected group is composed of analysts and every analyst can compete over providing warehousing services to bidders, warehousing is not harmful to the capital market. If, however, the selected group does not include analysts, and analysts have no opportunity to compete over the provision of warehousing services to bidders, the tension must be resolved in favor of restricting warehousing. Increased takeover costs for bidders and lower returns to analysts are balanced on either side of the scale. Given the myriad benefits the analysts' market produces, the scale should tip in the analysts' favor.18

Indeed, one might ask why it matters whether the bidder herself confidentially accumulates the shares of the target or whether a group acting on her behalf does so. Since in both cases the analysts will lose, why restrict direct warehousing? True, analysts will lose in both cases. If takeover premiums constitute a substantial part of their returns, analysts will need protection from bidders' confidential accumulation of the target shares. Initial accumulation of the shares of the target, however, is important for the bidder. First, holding a block of shares, a foothold, places the bidder in a better position to succeed in the takeover. Second, a block of shares that was bought for a low price provides the bidder with a hedge on her search costs. In the case of losing the target to another potential bidder, the first bidder will make a profit when tendering the block to the new bidder.19 Indeed, here too, there is tension between

18 See Macey, supra note 6, at 20. Macey argues:
No definition of public interest explains rule 14e-3. The only conceivable explanation is the private interest explanation offered by Haddock and Macey: the rule benefits corporate insiders whose political influence within the SEC is vastly superior to the disaggregated, unorganized shareholding population harmed by the rule.

Id. (emphasis added). Our examination of the rule suggests that the focus should be on the protection of market analysts.

promoting the efficiency of the market for corporate control and the efficiency of capital markets. The Williams Act\textsuperscript{42} resolves this tension by mandating that potential bidders disclose their intention after accumulating five percent of the target shares. This rule provides bidders with some foothold while protecting analysts from losing their anticipated takeover premiums. This balance is distorted by warehousing. In this light, warehousing just circumvents the restriction on the bidder's own accumulation, and thus will be, under the conditions explained earlier, equally harmful to analysts.

**Conclusion**

Framing the question as whether to award property rights in inside information to shareholders or managers has led many commentators to call for contractual resolution of the matter. As we showed in this Article, the binary framing of the question has obscured a third, superior option: awarding the property right to market analysts. When market analysts are taken into account, it becomes apparent that the choice between insiders and market analysts embodies a broader policy choice between an inefficient and an efficient information market. Granting the property right to insiders will lead to a market with very limited inter-insider competition; conferring it upon analysts will create true competition.

We also showed that competition among analysts will provide superior efficiency and liquidity to financial markets relative to insiders. The improved efficiency and liquidity will prompt greater investment in financial markets, and they will attract international companies to invest in the United States. Furthermore, competition among analysts generates substantial positive externalities for the information market and the investment banking industry. None of these positive effects is likely to arise under a purely contractual regime. Only a vibrant analysts' markets can produce them.

Finally, the broad market perspective we developed in this Article helped illuminate two particular aspects of insider trading: selective disclosure and warehousing. In both instances, we demonstrated that any attempt to regulate these practices must take into account the impact of the proposed regulation on market analysts.

\textsuperscript{42} 15 U.S.C. §§ 78m(d)-(e) & 78(d)-(f) (1988).
and that failure to do so will undermine the efficiency of the regulatory scheme.

We believe that the novel market perspective we developed in this Article might finally bring an end to one of the longest lasting puzzles in Law and Economics scholarship: the ban on insider trading.