The Short-Term/Long-Term Dichotomy and Investment Theory: Implications for Securities Market Regulation and for Corporate Law

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Managers of publicly held corporations in the United States face increasing pressure to maximize their companies' near-term earnings. This pressure emanates in part from the financial markets, which have in recent years experienced a period of unprecedented change and innovation. In this Article, Professor Thomas Lee Hazen examines the current state of American financial markets. Professor Hazen presents a thorough overview of investment theory, market forecasting techniques, developments in state corporate law, and current federal regulatory policy. He also discusses many of the new derivative instruments and innovative trading techniques that investors currently utilize. Professor Hazen contends that markets have become more volatile in recent years, causing investors to focus increasingly on near-term performance. He further asserts that the proliferation of short-term derivative instruments has exacerbated this problem. As investors demand superior near-term results, corporate managers feel compelled to shore up current earnings, often at the expense of investing for the future. Professor Hazen proposes reforms to reverse this situation that, if left unchecked, may pose dire consequences for the health and competitiveness of the American economy.

I. Introduction and Overview

During the past decade, financial markets have experienced unprecedented volatility resulting in many wide price swings within very short periods of time. This volatility has coincided with two major developments. First, the current regulatory philosophy of the Securities and Exchange Commission (SEC) and of the Commodity Futures Trading
Commission (CFTC) has fostered the development of an increasing array of options, futures, and other derivative investment vehicles. Second, the hostile takeover and leveraged buyout movements of the 1980s emerged as major market forces. These developments have shifted investor attention away from long-term gain and towards day-to-day market performance and, according to some, have encouraged corporate managers to focus on short-term goals for their companies.

In managing an enterprise or in establishing a strategic plan, managers must decide the extent to which they will focus on short-term rather than long-term goals. It is a popularly held belief that managers of publicly held companies in the United States are preoccupied with the current value of the company and its shares, thereby neglecting the long-term interests of the firm.

Over the past twenty years, academic commentators have increasingly stressed the importance of economic analysis in establishing corporate norms and legal parameters. This development has not gone unnoticed by market regulators. The SEC's Chief Economist, for example, has wielded considerable influence upon that agency's decisionmaking process. Much of the current wave of economic analysis focuses on shareholder wealth maximization. This in turn pressures corporate managers to promulgate programs and policies which favor maximization of near-term earnings at the expense of the company's long-term interests. Adding to this pressure are a number of recent developments in both state and federal law that have shifted the balance even further in the direction of short-term goals.¹

This Article begins by defining and examining the nature of the current overemphasis on short-term performance. Part II of the Article examines the market's pricing mechanisms and the various investment theories used to explain market performance. In Part III, the Article analyzes the extent to which the proliferation of derivative investments (options, futures, and index-related investments) in financial markets have affected share pricing and have contributed to the narrowing of investor time horizons. Part IV examines the conflicting empirical evidence concerning the question of whether corporate managers are in fact unduly emphasizing near-term performance. In Part V, the Article considers the market for corporate control and the extent to which the takeover movement of the 1970s and 1980s has forced managers to focus on short-term profit maximization. The Article concludes that both the SEC's current regulatory philosophy and state corporate law encourage

¹ For a discussion of these developments, see infra notes 163-79, 274-96 and accompanying text.
an undue emphasis on the near term. Rather than continuing their jurisdictional turf battle, the SEC and CFTC should rethink the underpinnings of their regulatory philosophies, which currently favor the proliferation of derivative investments. State law, which traditionally governs corporate managerial norms, has, since its inception, tried to balance the inherent tension between shareholder control and managerial autonomy. State legislators should be mindful of this tension when considering proposals to relax fiduciary principles, as such proposals may have detrimental effects on the health and viability of American business.

A. Defining the Problem

In recent years the increased volatility of the stock and other financial markets has shifted investors' goals from the long term to the short term. The best evidence of this is the increased use of derivative investments such as options and futures, which by their nature have short expiration periods.

The takeover movement of the last two decades has shown that publicly held shares trade at a minority discount below the asset, takeover, or break-up value of the firm. The best anticipatory defense to a hostile takeover is for management to keep the company’s stock trading at a high price in order to minimize the lure any control premium may offer. This, in turn, may shorten management’s time horizon when making corporate and strategic decisions.

Throughout this Article a distinction is drawn between short-term shareholder interests and long-term corporate interests. Management’s obligation to optimize long-run firm value may well conflict with its desire to maximize gains in the short term. For example, the prospect of huge research costs or expansion expenses can result in a high takeover or break-up value in comparison to the present discounted value of the going concern. Managers of a company that has been profitable over the past several years often have to decide whether and to what extent gains will be distributed to the shareholders or reinvested in the business.

It is not only the shareholders and optionholders who have an interest in the short-term performance of a company’s shares. The ability of a


3. See James A. White, Giant Pension Funds’ Explosive Growth Concentrates Economic Assets and Power, Wall St. J., June 28, 1990, at C1. Short-term interests generally, but not always, focus on shareholder wealth maximization. Defining short-term goals in this manner may oversimplify the issues to some extent, but it will suffice when analyzing the effects that an undue short-term outlook has on financial markets and on corporate law.
business to raise additional capital, whether by way of equity or debt, depends largely upon the market's current valuation of the company's shares. By focusing on current earnings, management may be able to maintain a higher share price, thus facilitating their ability to raise cash as needed. Accordingly, managers may tend to employ accounting practices and promote business and investment policies that enhance current earnings, even though such policies might diminish profitability over a longer time horizon.

Of course, short-term and long-term interests can coincide. Consider, for example, the case of a company engaged in the manufacture of phonograph records, a rapidly declining industry. Assume that the company's plant and other assets have considerable value. Because vinyl phonograph records are becoming obsolete, the company's shares are valued significantly below its liquidation value. Management could decide to expand the business beyond record manufacturing (much as the tobacco companies embarked into other fields in anticipation of declining tobacco markets). Alternatively, the firm could close its doors and liquidate. Short-term shareholder wealth maximization would call for liquidation in such a scenario since it is highly likely that any shift in the company's business would not be reflected immediately in the share value. The long-term interest of the firm might also favor liquidation over entry into industries where management has no experience.

Although short-term and long-term interests do not invariably diverge, they are in conflict most of the time. Investors and corporate decisionmakers should take into account both time horizons when making their investment and business decisions. Unfortunately, today's market environment inhibits rather than encourages such a balancing of considerations. The investment markets, fueled by the proliferation of options and futures, are largely driven by short-term forces. Market regulators have not been sufficiently attuned to this development, and the resulting lack of oversight has contributed to the problem. While federal regulators scramble to catch up to events, state legislators have been struggling to balance their desire to allow corporate directors and officers wide discretion to run their businesses with the competing and seemingly conflicting demand of investors that short-term share value be maximized. This struggle implicates important questions regarding the duties of directors and officers to their shareholders and to the corporation itself.

**B. The Nature of Directors' Obligations**

It is a well-established axiom of corporate law that corporate man-
agers owe a fiduciary obligation to the corporation and its shareholders. The structure of the corporate enterprise, however, contains an inherent tension between managers' fiduciary obligations to the shareholders and management's own self-interest. The divergence of managers' and shareholders' interests has been described in terms of differing risk preferences with regard to their respective stakes in the enterprise of the firm. Identifying what is in the best interest of the corporation can be a function of the many different ways of viewing the interests of its shareholders. For example, a shareholder in a publicly held corporation is often viewed primarily, if not exclusively, as an investor. Alternatively, one might consider a shareholder a proprietor of the business. In considering the shareholders' perspective, one should take into account both their investment and their proprietary interests in the corporation. As an investor, a shareholder probably is interested primarily in short-term profit maximization, especially in today's volatile markets. In contrast, the proprietor of a business is likely to have a longer time horizon.

The impact of varying time horizons is even more acute when considering the perspective of corporate managers. Managers with a longer-term view are likely not to worry about daily stock price fluctuations and can pay attention to maximizing firm value in the long term. Conversely, a manager obsessed with share prices may resist proposals to invest in beneficial but costly projects for fear that near-term earnings may suffer.


The tension between long-term and short-term goals appears vividly in the takeover context. Proponents of corporate takeovers assert that, in launching a hostile tender offer, the bidders are helping to maximize shareholder value. Target management typically responds by resisting, claiming that it is looking out for the long-term interests of shareholders. This explanation, however, probably does not represent the target management’s underlying motive. While the long-term interests of the firm may be furthered by something other than shareholder wealth maximization, one must remember that the corporation consists of an aggregation of various constituencies or stakeholders. When observers speak in terms of interests other than short-term wealth maximization, they are referring to these non-shareholder constituencies.

Shareholder wealth maximization as a guiding principle for corporate managers is not limited to the takeover context. Some observers have suggested that managers should focus on maximization of shareholder wealth in making investment decisions generally with regard to corporate assets. At least one commentator believes that this approach offers more managerial guidance than does “shabby” fiduciary duty principles.8

C. Market Performance

The obsession many managers currently have with near-term earnings results partly from a perceived vulnerability to takeover resulting from the tendency of financial markets to “discount” stocks.9 In an efficient market, the price of shares reflects the discounted present value of the company’s future as determined, among other ways, by analysts’ and investors’ collective evaluation of the total mix of publicly available information.10 If the price is discounted below that level, the market’s undervaluation must be attributable to some other factor(s). There are a number of possible explanations.11 One possibility is that investors be-

7. As discussed more fully below, the Delaware rule is that once a company is “for sale,” the directors’ sole obligation is to maximize shareholder wealth. Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 182 (Del. 1986); see infra text accompanying notes 276-78.
10. See infra text accompanying note 67.
11. See, e.g., Kraakman, supra note 9, at 894-901. In the face of a wide variety of explanations, it has been suggested that there has yet to be a satisfactory answer to the “riddle of takeover premiums.” Lynn A. Stout, Are Takeover Premiums Really Premiums? Market Price, Fair Value, and Corporate Law, 99 YALE L.J. 1235, 1259-68 (1990).
lieve that current management is not in the best position to realize the
firm’s potential. Others have suggested that target company shares are
not undervalued at all; instead, bidders offer unduly high control
premums.

Many observers and current SEC policymakers view takeovers as
“value creating” and therefore as a positive economic force. Some
economists, especially those representing the view of the Chicago School,
believe that takeover premiums provide strong evidence that takeovers
permit corporate assets to be employed in the most efficient manner. However, no consensus has yet been reached on the riddle of takeover
premums.

If the current price adequately takes account of a company’s long-
term prospects, then it would make little sense to talk of long-term share-
holders’ interest as distinct from their short-term interest. The mar-
et’s assessment of the future, however, does not reflect the interests of
other constituencies, such as employees, that have a stake in the corpora-
tion’s future. To this extent, price is not an accurate reflection of the
long-term interests of all corporate stakeholders.

As valuation is central to the discussion of the short-term/long-term
dichotomy, one must possess a basic grasp of how prices of investment
instruments are determined in modern financial markets. This requires
an inquiry into the various theories of valuation and market behavior.
Part II attempts this task.

II. THEORIES OF INVESTMENT ANALYSIS EXPLAINING STOCK
PERFORMANCE

Three basic approaches have been used to predict and explain the
behavior of stock prices: fundamental analysis, technical analysis, and
those investment strategies that flow from the Efficient Capital Market

13. See, e.g., Bernard S. Black, Bidder Overpayment in Takeovers, 41 Stan. L. Rev. 597, 599 (1989). In auction theory this is referred to as the “winner’s course.” See Paul R. Mil-
grom, Private Information in an Auctionlike Securities Market, in AUCTIONS, BIDDING, AND
CONTRACTING: USES AND THEORY 140 (Richard Engelbrecht-Wiggans et al. eds., 1983).
14. See, e.g., Kraakman, supra note 9, at 894.
15. See, e.g., Barry D. Baysinger & Henry N. Butler, Antitakeover Amendments, Managerial
Entrenchment, and the Contractual Theory of the Corporation, 71 Va. L. Rev. 1257, 1302
(1985).
16. This analysis is flawed insofar as it fails to take transaction costs into account. For
example, the tax consequences to shareholders that would result from a sale at a high price
may make it preferable for low-basis investors to keep rather than sell their shares.
Hypothesis. Fundamental analysis involves following the performance of particular companies and attempting to identify securities whose prices do not fairly reflect the analyst's evaluation of the company's financial condition. Technical analysis is based purely on the past market performance and other "key indicators." Technical analysts employ various systems and strategies to identify securities (or other investment media) whose past performance indicates that they are likely to be strong or weak in the future. Traditionally, research analysts have adhered to the fundamental theory of investing, although an increasing number are incorporating or relying primarily upon the technical approach.

The efficient market theory basically posits that the market price accurately reflects currently available information about a company and thus is a good indication of "value." The Efficient Capital Market Hypothesis has generated a number of corollaries and variations, including the "random walk" theory which holds that stock market prices cannot be predicted. The random walk theory is often used to denote the whole concept of an efficient market. It defines market efficiency as the lack of dependence between successive price movements. Adherents to this theory assert that, since price fluctuations are essentially random, fundamental and other forms of market analysis are of limited predictive value in selecting stocks. Not surprisingly, this theory does not have a wide following in the professional investment community.

A. Market Pricing

Before examining the three basic approaches to investment strategy, it is worth summarizing the leading theories relating to factors that affect the market's pricing mechanism. Under classical investment analysis, the current price reflects the discounted value of future returns. In the case of investment securities, future returns traditionally were viewed in

17. See, e.g., Charles V. Harlow, An Analysis of the Predictive Value of Stock Market 'Breadth' Measurements 6-30 (1968); see infra notes 67-75 and accompanying text.

18. Key indicators include not only the price performance of particular securities but also the trading volume, insider selling, short interest, interest rates, market averages, unemployment figures, and other economic data that can be charted over time. These figures may be compared to the market as a whole as well as to other indicators.


20. See, e.g., Malkiel, supra note 19, at 151-55, 177-85.
terms of dividend streams. The same evidence also supports the view that dividend changes, combined with the market's assimilation of information, do not adequately explain price movements. Some observers have explained the excessive volatility as a result of investors' "irrational judgments about uncertainty." Other explanations include what Keynes dubbed the "animal spirits" of investors in overreacting to information. As volatility increases, the herd instinct causes many investors to follow, which in turn magnifies price movements. To the extent that investors overreact, the markets are focusing on the short-term rather than long-term view, and astute analysts can take advantage of the overreaction by short-term trading strategies.

Some recent studies contend that, beginning in the 1980s, the financial markets have become excessively volatile. Skeptics of this claim have argued, however, that these studies are based on efficiency models.

21. Id. at 28-30.
24. Kleidon, supra note 22, at 998 (quoting KENNETH J. ARROW, STANFORD UNIV. CTR. RESEARCH ORGANIZATIONAL EFFICIENCY, TECHNICAL REPORT NO. 399, BEHAVIOR UNDER UNCERTAINTY AND ITS IMPLICATIONS FOR POLICY (1983)).
28. See, e.g., Lawrence Harris, S&P 500 Cash Stock Price Volatilities, 44 J. FIN. 1155, 1155 (1989) (comparing the volatility of the Standard & Poor's Composite 500 Stock Index
that incorrectly assume that investors are risk neutral, when in fact most investors are risk averse. Proponents of the efficient market theory assert that the efficiency models still work and that exchange trading with risk averse investors merely results in higher volatility than trading with risk neutral investors.

Another response to criticisms of the market's excessive volatility has been to assert that prices are not in fact excessively volatile when considered in light of investors' rational expectations. It is claimed, for example, that the percentage movement in financial markets has not increased significantly, but that it only appears to be so because of the higher price of shares and stock averages. Some observers are of the view, however, that studies supporting the efficiency and rational expectation paradigms are based on volatility tests marred by statistical problems and that unbiased tests continue to cast doubt on the Efficient Capital Market Hypothesis.

If one thing is clear from the foregoing overview of pricing theory, it is that many proponents of the hypothesis have come to recognize the difficulty in reconciling theory with the existing evidence of excess volatility. In the words of one observer:

One obvious route of reconciliation [of the disparity between efficiency models and volatility] is to maintain that expectations are not rational. If investors driven by "animal spirits," over-react to current information, it would explain the surprising volatility of asset prices. Such an explanation not only violates neoclassical tenets, it also clashes with the evidence which has been adduced in favor of the efficiency of asset markets. Hence the challenge to economic theory is clear. Theory must provide a model of asset pricing consistent with (1) rational expectations and optimizing behavior, (2) the empirical martingale property of stock prices, and (3) the high volatility of stock prices.

Thus, much debate continues over market pricing mechanisms. For

between 1975-1983, a period of time before index options and futures were utilized, and the post-1983 era, when use of these instruments became widespread).


30. Id.

31. Kleidon, supra note 22, at 971-72, 996-98.

32. N. Gregory Mankiw et al., An Unbiased Reexamination of Stock Market Volatility, 40 J. Fin. 677, 686-87 (1985). In presenting their conclusions, the authors concede that the unbiased samples on which they rely may not be statistically significant. Id.

33. Ronald W. Michener, Variance Bounds in a Simple Model of Asset Pricing, 90 J. Pol. Econ. 166, 167 (1982). "Martingale" is a term used to describe a gambling system in which the stakes are doubled after each loss.
the purposes of this Article it is not necessary to resolve the debate, but merely to acknowledge that it exists. Regulation (or nonregulation) of the securities and other financial markets must be framed with acknowledgment of the debate’s existence. The foregoing claims denying excess volatility are based on market activity prior to the proliferation of options, futures, and index trading. As discussed more fully below, it is this writer’s contention that the excessive volatility that currently exists is at least in part the result of a laissez-faire regulatory stance and that this approach cannot be justified in light of the current evidence. Before discussing such conclusions, however, it is necessary to investigate the methods that investors use in attempting to forecast market movements, because the predictions and expectations of investors as reflected in stock prices play a prominent role in the short-term/long-term debate.

B. The Basic Approaches to Investment Strategy

1. The Fundamental Approach

A securities analyst or investor employing a “fundamental” strategy of investing is seeking to discover a security’s intrinsic value. Fundamental investment analysis theory holds that when market prices fall below (or rise above) this intrinsic value a buying (or selling) opportunity arises, because the fluctuation will be corrected eventually.

The obvious problem with fundamental analysis is the difficulty of determining intrinsic value. The fundamentalist hopes that a thorough study of industry and individual firm conditions will produce valuable insights into factors that may reflect future performance of the company, but which are not yet reflected in market prices. An analyst relying on fundamentals will examine, among other things, the firm’s balance sheets, income statements, investment plans, and management records in hopes of finding information previously undiscovered. From this data, he will attempt to estimate the company’s future streams of earnings and dividends. A basic premise of the fundamental theory is that the intrinsic value of stock is equal to the present or discounted value of future dividends. When valuing a stock, the fundamentalist generally takes the perspective of a long-term investor. Long-term investors do not anticipate an imminent sale of their holdings; thus, the only direct benefit
they can expect is the payment of cash dividends.\textsuperscript{38} Traditional fundamental analysis generally involves the examination of four specific factors in order to estimate a security's intrinsic value.\textsuperscript{39} These four factors are: (1) the expected dividend payout (both level and duration); (2) the expected dividend growth rate; (3) the degree of risk; and (4) the market interest rates.\textsuperscript{40} Other things being equal, a rational investor should be willing to pay a higher price for stock that has a high expected growth rate or a high expected dividend payout.\textsuperscript{41} In addition, a security with a low degree of risk or a relatively high rate of return compared with lower prevailing rates should generate a higher price from investors.\textsuperscript{42}

\textsuperscript{38} Id. The takeover movement of the 1970s and 1980s, however, has prompted increasing emphasis on a firm's asset value rather than its dividend value. This trend, among other things, has helped lead many scholars to rely on the Capital Asset Pricing Model (CAPM). Stout, \textit{supra} note 11, at 1241 ("The CAPM incorporates portfolio theory into efficient market theory to predict that, because investors value stocks according to their risk-adjusted returns, stocks with identical estimated levels of market risk should trade at prices that imply an identical estimated rate of return.").

The Capital Asset Pricing Model assumes that demand is elastic and that pricing is determined by investors' collective assessment of the firm's potential. Hence, if a stock is undervalued in investors' eyes, increased buying demand will push the price upwards. Conversely, with an overvalued security, selling pressure will force the stock down to its appropriate level. Under the Capital Asset Pricing Model, it is assumed that an elastic demand exists and that investors operate on a series of homogeneous assumptions in valuing the shares known as the assumption of "homogeneous beliefs." The assumption of homogeneous beliefs has been attacked as unrealistic, and it has therefore been suggested that we consider an alternative "heterogeneous beliefs" model under which each investor's process of information sifting and price valuation varies. \textit{Id.} at 1238-39.

Opponents of the Capital Asset Pricing Model further posit that rather than an elastic demand that rises and falls in accordance with the current market, stocks have a naturally downward sloping demand. Given a downward sloping demand, the market becomes skewed by large block transactions which then are said to have an inordinately significant impact on market pricing. \textit{Id.} at 1239-41.

\textsuperscript{39} MALKIEL, \textit{supra} note 19, at 82-88.

\textsuperscript{40} \textit{Id.} at 87-94. The fundamentalist is aware that the actual price of a stock is dependent on factors such as the economy and events within the company; these four specific factors, however, supposedly will enable one to calculate correctly the stock's true value in order to compare it to the actual price.

\textsuperscript{41} Dean Malkiel notes:

The theory stresses that a stock's value ought to be based on the stream of earnings a firm will be able to distribute in the future in the form of dividends. It stands to reason that the greater the present dividends and their rate of increase, the greater the value of the stock. \textit{Id.} at 21.

\textsuperscript{42} Most investors prefer a stable stock, one that has smaller price swings relative to the market as a whole. \textit{See, e.g., id.} at 92-93. Low risk stocks, then, can command a premium because of the demand for them. This assumes, however, that the investor is risk averse.

Market interest rates also influence the demand for stocks and, therefore, the price of stocks. \textit{Id.} at 94. If interest rates go up, investors will put their money in the bond market to
Fundamental analysis obviously is not a true science. No one can consistently and accurately predict the future. Even after a thorough analysis, the security analyst's valuation is still only an educated guess. Moreover, "[p]recise figures cannot be calculated from undetermined data." Because much of the underlying data is itself guesswork, an analyst's predetermined bias can influence his or her calculations. Thus, a security analyst often is able to obtain the figure she wants by consciously or unconsciously manipulating the determinants. Some combination of growth rate and growth period will produce any specific intrinsic value desired.

Despite these caveats, a study conducted in 1970 suggests that the four-factor approach of fundamental analysis is valid. The study measured the actual price of stock in terms of the stock's price/earnings ratio. The results indicate that high price/earnings multiples are associated with a high expected growth rate. In fact, the study concluded that market prices tend to behave just as the four-factor approach suggests. This implies that a logical connection does exist between a security's intrinsic value and its market price. Thus, it is contended that any current deviation from a stock's intrinsic value should correct itself. This study appears to support the validity of the fundamentalist's approach to predicting stock prices. If an analyst or investor accurately estimates the four determinants and then correctly calculates a security's intrinsic value, she just has to compare it with the stock's actual price to know whether to trade.

Observers have identified three possible problems with the fundamental theory. First, the information and analysis may be incorrect. The information the analyst collects from studying the firm and the industry may not fairly reflect present or potential financial condition. And even if the information obtained is correct, an unskilled analyst may fail to estimate accurately the impact of the four determinants. Second, the analyst's ultimate valuation may be incorrect. Many factors affect the price of stock in addition to the four specific determinants. Trans-

obtain the higher rate of return, thereby causing the price of stocks to fall. See, e.g., id. Alternatively, when interest rates drop, money will flow back into the stock market, thereby causing stock prices to rise.

43. Id. at 90.
45. MALKIEL, supra note 19, at 98, 100.
46. Id. at 124-26; HARLOW, supra note 17, at 14-16.
47. Other factors affecting a stock's value include the economy, takeover bids, management skill, and news events such as a discovery within the company or a natural disaster. MALKIEL, supra note 19, at 28-45.
lating all the factors into one single estimate of intrinsic value is extremely difficult. Even if the estimates of growth, dividends, and other factors are correct, any difference between the actual market price and the intrinsic value may simply represent a faulty estimate. Third, the divergence between the market price and the perceived intrinsic value may never be eliminated. The market may correct its "mistake" by revaluing all stocks downward, instead of raising the price of the "undervalued" stock. If the analyst is correct in his determinant analysis, his clients would still suffer if the market revalued downward its estimates of what stocks were generally worth.

Consider the following example: Suppose that XYZ Company has a price/earnings ratio of twenty to one. Suppose further that the analyst estimates that XYZ can maintain a long-term growth rate of twenty-five percent and that, on average, stocks with an anticipated growth rate of twenty-five percent are selling at thirty times their earnings. Based on these projections, the analyst reasonably concludes that the stock is a "buy" because it is undervalued and recommends that her clients purchase the stock. However, a few months after this recommendation, the market, rather than correcting the perceived undervaluation of XYZ stock, revalues stocks with an anticipated growth rate of twenty-five percent to sell at twenty times earnings. As a result of this unanticipated downward adjustment, the price drops and the investor suffers a loss even though the analyst's prediction of future performance was correct.

As the foregoing discussion demonstrates, the success of a fundamental approach to market analysis depends on an analyst's ability to outguess the market. Ironically, the analyst may be correct in predicting certain events, only to find that the market makes an adjustment that wipes out the profit that otherwise would have accrued.

2. The Technical Approach

Technical analysis refers to the study of the performance of the market itself rather than external factors that affect supply and demand for securities. Although there are many variations on the technical approach, the discussion that follows describes what is perhaps the most common variety of market technician—the chartist. The chartist makes and interprets stock charts of past movements of common stock prices and trading volume for clues to future price movement. The technician graphs past stock movements in hopes of identifying a pattern.

48. Id. at 110-11.
49. To construct a chart the technician simply draws a vertical line with the bottom being the stock's low for the day and the top being the stock's high. A horizontal line is drawn
ists believe that stock prices tend to move in trends: a stock that is rising will continue to rise until it meets its resistance level; a falling stock will continue to fall until it reaches its support level. Resistance and support levels are determined in part by observing a stock's performance over time and identifying cycles. Technical analysts claim that investors all contribute to and are influenced by mass psychology. Therefore, the best investment strategy is to anticipate how other investors will react. The charts tell the technician how investors have reacted in the past with the hope that he can predict their future actions. An upward trend is ordinarily interpreted as a bullish indication that the stock will continue to rise. The technician then awaits the signal that the market has peaked. This is called a resistance level; it is reached when the stock begins to turn downward because of insufficient buying interest to generate a further price rise. When the stock reaches this level the technician will sell, anticipating that a prolonged downward trend will follow as it has in the past.

Technical analysis generally results in trading strategies geared to the short term. Unlike the investor relying upon fundamental analysis, the technical analyst tends to be a trader rather than a long-term investor. Technicians expect that an investment's rate of return is a function of timing trades. They buy when the trend looks positive and sell when the trend turns negative or when a security approaches its resistance level.

Three assumptions have been offered to justify an investment strategy based upon technical analysis. One such assumption is that stocks perform in predictable patterns based in large part upon market psychology. For example, one pattern that the chartist believes clearly depicts a bearish signal is a "head and shoulders" formation. In this pattern, the stock first rises and then falls slightly, forming a shoulder. It then rises a little higher and drops back to the original low, forming the head. Finally, it rises again, but not as high as the head, and falls forming the second shoulder. If the stock then falls below the previous two lows or "pierces the neckline," the chartist will sell, believing the market is be-

50. Id. at 118.
51. Technical analysts frequently rely on a "moving average" charted over time.
52. MALKIEL, supra note 19, at 113.
53. Id.
54. Id. at 113-14.
ginning a downward trend.\footnote{Id. at 113-15.}

A second assumption of technical analysis is that informational advantages exist within the market. As a practical matter all investors do not have equal access to information about any particular company. When an event occurs within a company, insiders will be the first to find out and to trade on the information, causing the stock price to either rise or fall.\footnote{See, e.g., id. at 119.} Gradually, the information is disseminated down to professional traders and the public. This filtration process results in a slow increase in the price of stock following favorable news and a decrease when the news is bad. The technician hopes to identify these patterns early in the filtration process. In this way, technical analysis depends upon the market as an efficient but relatively slow mechanism for filtering information.

A third assumption upon which technical analysis is grounded posits that investors remember what they paid for a stock.\footnote{Id. at 117.} If the price of a stock declines after a number of investors have bought in, they will want to sell when the stock goes back to its original purchase price in order to break even. This price will become a resistance area because the selling will prevent the stock from going any higher.\footnote{Id. at 120.} The same logic lies behind the notion of support levels. If a number of investors fail to buy when the market is low, they will feel deprived when prices rise. Consequently, when the market drops to the original low level, investors will buy.\footnote{Id. at 120.} That price then becomes a support level since the buying prevents the market from falling any further.\footnote{Technicians believe that by identifying resistance and support levels they will be able to identify the signals to trade. When a stock declines to a support level and then begins to rise, technicians will buy, believing the stock is beginning an upward trend. Alternatively, if a stock reaches a prior resistance level and goes no further, the technician will sell, believing the stock has reached its peak. Another bullish signal is sent when the stock breaks through a prior resistance level. The former resistance level then becomes a support level and the stock is believed to have begun an upward trend.}

The principal arguments against technical analysis are threefold. First, technicians trade only after prices begin to move.\footnote{HARLOW, supra note 17, at 27-29; Malkiel, supra note 19, at 118-20.} It is not always possible to react in a timely manner and anticipate market movement.\footnote{MALKIEL, supra note 19, at 118-20.} If investors fail to react quickly, they may be too late to take advantage of the movement.\footnote{Id. Furthermore, if the market is truly efficient in the "strong" sense, there in fact
erating the aggregate effect of transactions. If all technicians are anticipating that prices will rise tomorrow, they will act today. Consequently, prices will increase today and any advantage the technician hoped to gain will vanish because the market will adjust. No buy or sell signal can be successful if a large number of investors attempt to act on it simultaneously. Third, and perhaps most importantly, empirical studies reveal that no correlation exists between yesterday's price and today's price. The stock market has no memory, these studies claim, and therefore, past movements in stock prices do not foretell future movements. Coin flipping provides an apt analogy in that the results of each flip are independent of any previous results. Sometimes a long string of heads may occur, but that does not mean the next flip will result in heads. Mathematicians call this a “random walk.”

3. The Efficient Market and the Random Walk Theory

A third major approach to investing is the Efficient Capital Market Hypothesis. The hypothesis is concerned with “how successful the market is in establishing security prices that reflect the ‘worth’ of the securities, success being defined in terms of whether the market incorporates all new information in its security prices in a rapid and unbiased manner.” Proponents of the hypothesis note that a primary consequence of true efficiency should be that most investors, if not all, are precluded from being able to systematically outperform the market. This in turn has evolved into the random walk theory, which holds that since price movements of particular stocks are random, no effective systematic way exists to predict which stocks will be the winners and which will be the losers.

may be no time to act. For a discussion of strong form efficiency, see infra text accompanying note 75.

64. Malkiel, supra note 19, at 118-19.
65. See id. at 133-34.
66. See id. at 134-36.
The Efficient Capital Market Hypothesis is firmly entrenched in the law of securities regulation. Consider, for example, the fraud-on-the-market presumption of reliance. When a material misrepresentation or omission is made with regard to a publicly traded security, courts presume that the price has been affected. The fraud-on-the-market presumption is derived from the judicial belief in the hypothesis. In an efficient market, stock prices reflect the total mix of available information; if someone injects material misinformation into that mix, it follows that the price should be adversely affected. Accordingly, in a suit charging securities fraud, once materiality is shown the burden rests with the defendant to show that the price was not so affected.

Scholars have developed three forms of the efficient market theory. The market is "weakly" efficient if prices fully reflect the information implied by all prior price movements. In a weakly efficient market, a change in price would be triggered only by new information or a new economic event. The "weak" form of the efficiency has, thus, been explained as follows: "The history of stock-price movements contains no useful information that will enable an investor consistently to outperform a buy-and-hold-strategy in managing a portfolio."

The market is "semi-strong" efficient if prices respond instantaneously and accurately to newly published information. In a semi-strong efficient market, the price implicitly has already taken into account any public information about the economy or the company, such as the fac-


69. See, e.g., Levinson, 485 U.S. at 241-42.

70. As one court has summarized the efficient capital market hypothesis: "[E]conomists have now amassed sufficient empirical data to justify a present belief that widely-followed securities of larger corporations are 'efficiently' priced: the market price of stocks reflects all available public information—and hence necessarily, any material misrepresentations as well." In re LTV Sec. Litig., 88 F.R.D. 134, 144 (N.D. Tex. 1980); see, e.g., Levinson, 485 U.S. at 247 (applying fraud-on-the-market presumption of reliance); 2 HAZEN, supra note 68, § 13.5, at 700.

71. Levinson, 485 U.S. at 241-42.

72. KEANE, supra note 67, at 10.

73. Malkiel, supra note 19, at 137.

tors generally considered by fundamental analysts. It follows that professional analysis of this data to discover deviations from the stock’s intrinsic value is futile because the stock’s price supposedly equals its intrinsic value.

Under the “strong” form of the efficient market theory prices instantaneously and accurately reflect not only all publicly available data but all relevant information that can be known. In a strongly efficient market it would not be possible, even for insiders, to trade profitably on their information because the insider’s usual advantage—unique access to information—does not exist.

A majority of scholars accepts the efficient market and random walk theories, although some have voiced their reservations. While much of the empirical evidence to date indicates that markets are not strongly efficient, empirical support does exist for the weak and semi-strong forms of the efficient market theory. While studies and anecdotal experiences support the claim that by using various trading strategies, investors can make short-term profits, many observers assert that these strategies do not perform consistently.

Critics of the Efficient Capital Market Hypothesis point out weaknesses in some of the theory’s underlying assumptions. First, all investors do not play by the same ground rules when picking investments, which itself hampers market efficiency. Many investors ignore or are not aware of the hypothesis and utilize fundamental and technical analysis in selecting securities that they expect to outperform the market. According to adherents of the hypothesis, fundamental and technical analysis are not rational investment strategies because they do not take into account investment risks that are already factored into the market.

A second criticism is that the hypothesis is based on the premise that the market values securities based on all publicly available information. It is difficult to believe that all information is immediately disclosed to everyone. Furthermore, the efficient market theory assumes that

75. KEANE, supra note 67, at 10.
76. See, e.g., Wang, supra note 67, at 341; see also Malkiel, supra note 19, at 183-85 (expressing reservations about the strong and semi-strong forms of efficiency); Stout, supra note 11, at 1259-68 (implying that the efficient market theory cannot explain large takeover premiums).
77. HARLOW, supra note 17, at 32; Malkiel, supra note 19, at 137.
79. See supra notes 61-66 and accompanying text.
80. Even if one argues that this is true for the large publicly traded corporations, it would
“no one possesses monopolistic power over the market and that stock recommendations based on unfounded beliefs do not lead to large buying.” With the proliferation of institutional investors, however, it is quite possible that an erroneous belief about a stock can lead to large amounts of cash flowing in and out of the market. To that extent, the self-fulfilling prophecy explanation maintained by the technicians may be credible.

Critics also contend that, insofar as the efficient market theory depends on the quick and accurate dissemination of information, it is possible, at least in theory, for an analyst with exceptional intelligence to evaluate the information and form superior predictions about a stock’s prospects.

Finally, opponents of the Efficient Capital Market Hypothesis assert that the theory ignores the psychology of investors. One can hardly doubt the significance of investor psychology on the market in light of what might be dubbed the “October syndrome.” The stock market’s worst and most volatile performances have occurred during the month of October. On the fiftieth anniversary of the 1929 Wall Street crash, the Dow Jones Industrial Average over five days suffered a 58.62 point decline, a loss of seven percent in value. Eight years later, on October 19, 1987, the market experienced its worst day ever, with the Dow Jones Industrial Average declining by almost one-third. Then, just two years later, on Friday October 13, 1989, the Dow average dropped 190 points not follow for the many small companies that, although publicly traded, are not actively followed by professional investors.

81. MALKIEL, supra note 19, at 184.
82. See, e.g., Lowry, supra note 26, at 23-35.
83. See, e.g., MALKIEL, supra note 19, at 117.
84. Id. at 185.
85. Although economists would scoff at it, additional evidence of irrationality can be found in behaviorist literature. See, e.g., Michael Klausner, Sociological Theory and the Behavior of Financial Markets, in SOCIAL DYNAMICS, supra note 19, at 57. For example, under cognitive dissonance theory, investor behavior is likely to be affected by the stress that results for the investor who buys a stock with the hope of gain but watches the price drop (or the investor who sells a stock and then watches it rise). Id. at 71-75. It has thus been suggested that not all of the answers to stock market performance lie in economic analysis. See, e.g., DAVID N. DREMAN, PSYCHOLOGY AND THE STOCK MARKET 102-13 (1977); Baker, supra note 26, at 107.

A significant body of literature suggests that markets are not as rational as many economists assume. See, e.g., Charles R. Plott, Rational Choice in Experiment Markets, in RATIONAL CHOICE 117, 139-41 (Robin M. Hogarth & Melvin W. Reder eds., 1986). For example, even proponents of the rational choice theory have acknowledged that not all market activity is rational. Id. at 141.

87. For a discussion of recent market volatility, see infra text accompanying notes 142-59.
(nearly seven percent) with most of the loss occurring in the last ninety minutes of trading.\textsuperscript{88} Many economists might argue that these precipitous declines revealed an efficient filtering of investors' fears. Given the rapidity of the declines, however, it is difficult to characterize these downturns and the corresponding investors' fears solely in terms of rational economic behavior.

What then is the effect of irrational investment decisions on market price? Economists refer to irrational investment behavior as "noise" which interferes with efficiency.\textsuperscript{89} It appears to be a given in efficiency analysis that markets are noisy.

Noise may be defined in various ways.\textsuperscript{90} "Noise traders" make the market attractive for those who trade on information.\textsuperscript{91} However, noise traders may overreact to information, thus forcing inordinate attention on short-term performance and increasing volatility.\textsuperscript{92} By causing the market to depart from the direction in which quiet efficiency otherwise would lead it, noise presents the opportunity to correct market inefficiencies by entering into corresponding transactions. Proponents of the Efficient Capital Market Hypothesis contend that noise is treated like any other information—that is, it is factored into market prices.\textsuperscript{93}

As a footnote to the discussion of efficient market theory, some mention should be made of the random walk theory. This theory does not, as some critics have claimed, state that stock prices move aimlessly and erratically and are insensitive to changes in fundamental information. On the contrary, it maintains that the market is efficient, with prices moving so rapidly in response to new information that investors cannot consist-

\textsuperscript{88} For a discussion of the "Friday the 13th" and the rebound on the following Monday, see infra text accompanying notes 152-54.

\textsuperscript{89} See, e.g., Fischer Black, \textit{Noise}, 41 J. FIN. 529, 529-30 (1986).


\textsuperscript{91} Black, supra note 89, at 530-32.


ently buy or sell fast enough to benefit.\textsuperscript{94} Hence, the only profitable investment strategy is to buy and hold randomly selected stocks over a long period of time.\textsuperscript{95} Although the random walk theory was built on acceptance of efficient markets, the random walk is not an inevitable consequence of efficient markets, at least for markets that are only weakly efficient.

While efficient market proponents assume that information filters into the market in a smooth and orderly fashion and that resulting price moves are gradual, some evidence shows that this is not the case; therefore, it has been suggested that securities prices may be “excessively sensitive to current information,”\textsuperscript{96} while another study concluded that “stock markets behave as if they have a finite time horizon.”\textsuperscript{97} If these conclusions are accurate, such overreaction to short-term information presents opportunities for profit.\textsuperscript{98} This phenomenon is an additional indication that in the current market climate, investors are focusing unduly on the short term. It also means that long-term investors whose timing is wrong can be whipsawed by the market’s wide swings.

4. A Random Walk to Chaos?

Before leaving the random walk theory, an emerging theory de-

\textsuperscript{94} See, e.g., James M. Poterba & Lawrence H. Summers, Mean Reversion in Stock Prices: Evidence and Implications, 22 J. Fin. Econ. 27, 29-31 (1988).

\textsuperscript{95} Modern portfolio theory postulates that individual stock selection cannot beat the market and that the best strategy is to buy and hold a large diversified portfolio. Acceptance of the buy and hold strategy suggests that there is no economically rational way to invest in the short-term market. Nevertheless, there has been a proliferation of derivative investments that by their nature are short term. Does the acceptance of the random walk and modern portfolio theories by many economists mean that the authorities should limit the availability of futures and options in order to minimize the skewing of the market toward short-term events? This certainly is not the tenor of the current literature, nor is it the force driving current regulatory philosophy. Most of the economic literature maintains that options and futures increase market efficiency. If the options and futures markets focus on the short-term, how can this supposed efficiency be compatible with the random walk and modern portfolio theory?

\textsuperscript{96} Joerding, supra note 27, at 72.

\textsuperscript{97} Id. at 80. The study examined four particular stocks—Exxon, General Electric, International Telephone & Telegraph, and Texaco—and found that, even when taking a very optimistic basis of predicting future value, the market’s time horizon never exceeded 196 months and in many cases was much shorter. For example, the price history of General Electric stock for the period studied was found not to be a rational predictor of future value beyond 37 months. Id. This does not comport with the market as an efficient discounter of present value unless one assumes that the market believed General Electric would no longer be in business after three years.

\textsuperscript{98} See, e.g., David D. Dreman, Contrarian Investment Strategy: The Psychology of Stock Market Success 153-54 (1979). The profit would be captured by identifying the overreaction and investing in such a way as to capitalize on the market’s eventual return to the “proper” valuation.
serves mention: chaos theory. Chaos theory holds that close analysis will reveal order in patterns which otherwise appear to be disorderly or random. Adherents to the chaos theory speak in terms of the "strange attractor"—the phenomenon that transfers disorder into some underlying theme or pattern.

Chaos theory is gaining popularity in the hard sciences, and some economic theorists are now utilizing it to support their belief that market activity may be explained as chaotic rather than random. Several recent studies suggest that the financial market's performance over time may be patterned in ways that elude standard statistical tests. As one authority explains: "In chaos theory, an emerging field in the science of nonlinear dynamics, one finds a hidden pattern in seemingly random events, order in what appears to be disorder, predictability in apparent irregularity." Accordingly, some have suggested that in the financial

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101. In a scientific world that was once thought to be based on orderly systems, complex systems are now viewed as chaotic by many scientists. When used in this sense, chaos does not mean that there is no pattern present.


104. Burr, supra note 102, at 3.
markets, as with any complex system, performance lies somewhere between order, which is predictable, and randomness, which is not. The fact that patterns can be identified in prices that at one level seem random does not necessarily contradict a belief in the weak form of market efficiency.

In contrast to the random walk theory, which posits that stock prices are random and that movement is determined by systematic risk with individual securities fluctuating according to their volatility (or "beta"), chaos theory maintains that what appears to be random is not, and that patterns may be discerned. However, these patterns may not be predictable in advance. Thus, chaos theory may not provide any basis for investment selection since future movements may be as unpredictable as they would under the random walk theory. Nonetheless, adherence to the chaos theory necessarily undermines belief in the randomness of stock prices. If stock prices are not in fact random, then investment strategies that flow from the random walk theory must be reconsidered.

C. Responses to Criticisms of the Efficient Capital Market Hypothesis: Portfolio Theory and the Capital Asset Pricing Model

The academic community has attempted to confront some of the criticisms hurled at the efficient market theory. Proponents of the hypothesis concede that selecting individual securities has proved a successful strategy for many investors. Others contend, however, that this method of beating the market does not depend on superior intelligence, information, or charting, but instead is a result of incurring greater risk. As Dean Malkiel explains, "[r]isk, and risk alone, determines the degree to which returns will be above or below average, and thus decides the valuation of any stock relative to the market."

Modern portfolio theory developed from the idea that only a willingness to take greater risk will earn investors greater returns. An inves-

105. See Bruce I. Jacobs & Kenneth N. Levy, The Complexity of the Stock Market, J. PORTFOLIO MGMT., Fall 1989, at 19. For example, a cyclical pattern was identified in a collective study of the performance of five stocks which, on an individual basis, appeared to perform randomly. See Marlene Cherchi & Arthur Havenner, Cointegration and Stock Prices: The Random Walk on Wall Street Revisited, 12 J. ECON. DYNAMICS & CONTROL 333, 345 (1988).

106. Frankfurter & Lamoureux, supra note 78, at 399. The finding of weak efficiency is based on the assumption that investors are risk neutral. Others have suggested that investors are, in fact, risk averse. See LeRoy & LaCivita, supra note 29, at 538-39, 546.

107. See infra note 114 and accompanying text.

108. Malkiel, supra note 19, at 216.

109. Id.
The theory posits that investing in a diversified portfolio reduces total risk and allows investors to earn consistent returns. True diversification is achieved by having in the portfolio stocks that are not all controlled by the same economic variables. In reality, minimizing risk through diversification is often difficult because stocks tend to move in tandem. Some risk can be limited through application of the theory underlying the Capital Asset Pricing Model.

The Capital Asset Pricing Model asserts that the total risk of a stock is actually the sum of two different types of risk. One type is systematic risk, or beta, which arises from the basic variability of stock prices and the tendency for all stocks to move with the market to some extent. While all stocks are affected by systematic risk in the same way, some are affected more than others. This accounts for some stocks having high betas while others have low betas.

The remaining variability is called unsystematic risk. This risk results from factors peculiar to an individual company or industry. Unsystematic risk can be eliminated through diversification. Unsystematic risk factors that negatively affect one company may positively affect another. For example, securities issued by oil companies may increase with the price of crude oil while airline stock prices will simultaneously decrease because of higher fuel costs. Since unsystematic risk can be eliminated through diversification, modern portfolio theory holds that the market will not compensate investors for that risk.

Systematic risk, in contrast, cannot be eliminated through diversification.
cation and thus will command a risk premium. Investors will not benefit by assuming risk that could have been eliminated by portfolio diversification. Thus, an investor need only invest in a large diversified portfolio with a high beta to earn higher rates of return.

Modern portfolio theory and the Capital Asset Pricing Model first evolved in the 1970s and gained instant popularity. As additional evidence on beta was collected, however, it became apparent that the actual relationship between beta and rate of return is not precisely what the theory had predicted. In addition, the relationship between beta and investment return has proven undependable in the short run. Finally, beta itself does not appear stable from period to period.

The foregoing evidence suggests that no easy method is available to assess risk and predict future returns with any certainty. Hence, many observers conclude that until a better approach is proven, the most profitable investment strategy is to buy and hold a randomly selected portfolio over a long period of time—in other words, the random walk theory. In light of this conclusion, the following question arises: To what extent, if any, does the proliferation of short-term trading strategies affect this lesson?

119. As Professor Haskell explains:

A fundamental principle of contemporary economic thinking is that the marketplace compensates the buyer for systematic risk but does not compensate the buyer for specific risk. Systematic risk is unavoidable; almost all stocks covary positively, albeit in different degrees, in relation to that risk. Expected return is the riskless rate (short-term U.S. government debt) plus a rate determined in accordance with the degree of systematic risk.

120. See Haskell, supra note 110, at 102 ("The larger the portfolio, the closer the specific risk factor of the portfolio can approach zero."). The beta calculation is a comparison between the movements of the individual stock (or portfolio) and the movements of the market as a whole. If the stock has a beta of two, for example, this means when the market goes up 10% the stock will go up 20%. If the stock is perceived as having a high beta, its price will adjust to provide higher returns. Investors would not buy securities with higher risk without the expectation of higher returns.

An individual investor who purchases only high beta stocks cannot gain the same advantage unless she can achieve the same measure of diversification as the large portfolios of institutional investors. See id. at 102-03.


122. Malkiel, supra note 19, at 242-55.

123. Id. at 245-48.

124. Id. at 222.
III. DERIVATIVE INVESTMENTS AND THEIR IMPACT ON MARKETS
AND REGULATORY PHILOSOPHY

A. The Rise of Derivative Instruments and Their Effect on Market
Volatility

Over the past ten years, a major shift in the investment community
has taken place. Although the futures markets have for a long time pro-
vided various hedging opportunities for both commodities merchants and
investors, it is only within the past ten years that such strategies have
become commonplace in capital and other financial markets. Similarly, a
veritable explosion of options and other derivative investment vehicles
has reverberated throughout financial markets. These instruments
have contributed significantly to shifting the markets' focus from long-
term to short-term strategies.

The most straightforward of these derivative investment vehicles are
“put” and “call” options on individual securities. These instru-
ments enable investors to enter into an option contract to either buy or
sell a security at a designated exercise price (or “strike price”) prior to a
designated expiration date without buying the security outright. In
purchasing a call option, the option holder has taken a “bullish” position
in the underlying security—he or she is hoping that the price will rise;
conversely, the seller of a call option is betting that the price will not rise.
Similarly, the purchaser of a put option is hoping that the price of the
security will fall. Since options cost only a fraction of the price of the
underlying security, they can be used as a vehicle for leveraged investing
with a limited amount of up-front capital. Options also are useful for
various hedging strategies.

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125. See, e.g., 1 HAZEN, supra note 68, § 1.5.1, at 43.
126. A “put” option is a contract under which the option holder (the purchaser) has the
right to sell the underlying stock to the option writer (the seller of the option) at the designated
exercise price any time prior to the expiration date. A put option is “in the money” when the
exercise price is at or above the current market price for the underlying security.
127. A “call” option is a contract between the writer of the option (the seller) and the
option holder (the purchaser) under which the holder of the call option has the right to “call”
the underlying stock away from the option writer at the exercise price at any time prior to the
expiration date. A call option is priced based on the relationship of the underlying security’s
current market price to the exercise price on the option, and is “in the money” when the
exercise price is at or below the current market price of the underlying security.
128. Consider the following example:

[A]n investor owning 1000 shares of ABC Co. stock which is currently trading at $12
In the 1970s, the trading of "put" and "call" options on individual securities became more widespread, leading several of the national securities exchanges to specialize in options rather than equity and debt securities. The options (and now the futures) markets have expanded beyond options on individual securities to index options and futures. These relatively new instruments permit investors to take investment positions in baskets of securities as represented by a particular grouping.

Stock options, index options, and index futures may have increased per share may want to limit the risk of a price decline. In such a case, an appropriate hedge strategy would be to buy put options with a strike price of $10 per share. This would guarantee that at any time until the expiration date the investor could sell the stock for $10 per share. Buying the puts will cause the investor to incur the cost of the premium that the market has placed on the put and thereby the investor increases his or her total cost but limits the risk of loss.

1 HAZEN, supra note 68, § 1.51, at 43.

129. The Chicago Board Options Exchange is a national securities exchange registered under § 6 of the Securities Exchange Act of 1934, 15 U.S.C. § 78f (1988), and trades exclusively in options. The Philadelphia and Pacific Stock Exchanges trade relatively few stocks but list many options. Additionally, the American Stock Exchange has many active options listings. For a discussion of the history of the securities options market, see REPORT OF THE SPECIAL STUDY OF THE OPTIONS MARKETS TO THE SECURITIES AND EXCHANGE COMMISSION 1-9 (1978). Since options are contracts between two people, they cannot be traded in the same manner as equity and debt securities. Publicly traded options involve the listing of the various put and call options on a national securities exchange, with the Options Clearing Corporation acting as a clearinghouse that matches the purchasers and sellers of the options.

130. An index option operates much like an option on a particular security. While an option on a security involves the right to purchase or sell that particular security, an index option involves the right to purchase or sell a basket of stocks; the aggregate price of the stocks in the basket determines the price of the option. An index future is similarly based on a basket of stocks. However, an index future does more than give the holder an option to purchase or sell; it creates an actual contractual delivery obligation, much the same as a futures contract on an agricultural commodity. The delivery obligation is illusory, since investment positions in futures contracts are generally "closed out" by purchasing an off-setting contract.

Futures contracts traditionally have existed for agricultural commodities, crude oil and derivatives, and precious metals trading, but more recently have expanded into government securities, foreign currencies, stock indexes, and other financial futures. See generally 1 PHILLIP M. JOHNSON & THOMAS L. HAZEN, COMMODITIES REGULATION § 1.01, at 3-6 (2d ed. 1989) (tracing the expansion of the definition of "commodity" from specific agricultural products to any tangible or intangible subject of futures trading). The mechanics of a futures contract are as follows: A June gold future contract obligates the seller of the contract to deliver a designated amount of gold to the purchaser on a specified delivery date at the market price on that date. Futures contracts are priced with reference to the current price of the underlying commodity and the investment community's prediction as to the likelihood of price increases at the time of expiration.

Originally, futures contracts were envisioned as a way for farmers and other merchants to hedge their positions—for example, by selling corn futures against the crops in the ground. Today, however, the futures markets are dominated by investors. Through the market process known as "offset," a technique under which investors purchase (or sell) an off-setting futures contract prior to the delivery date, more than 95% of delivery obligations are extinguished. Stock index futures operate the same as future contracts on hard commodities, except that the
market volatility. Moreover, the prevalence of these investments and various trading strategies has caused investors to focus more on short-term rather than long-term investments. As a general rule, the longest publicly traded option lasts for nine months. Most options and futures trading is done on an even faster basis. For example, many futures or options trading strategies include quick turn-around trades, frequently taking place on the same day.131 Many of these strategies involve hedging, straddling, or spreading an option or futures contract against the underlying security or basket of securities. These factors make it clear that short-term strategies not only dominate the options and futures markets; they have also come to play a major role in, if not dominate, the equity securities markets.

Many observers claim that the availability of derivative investment vehicles enhances market efficiency.132 In fact, a number of studies conducted during the early and mid-1980s indicated that stock market volatility did not increase with the introduction of futures and options.133

delivery obligation is not defined in terms of the underlying basket of securities. Rather, it is for an amount of cash to be determined by reference to the applicable index.

Although stock index futures involve risks normally associated with securities and securities options, they are regulated by the Commodity Futures Trading Commission. Repeated jurisdictional battles have occurred between the SEC and the CFTC over the regulation of derivative financial investments. See, e.g., Chicago Mercantile Exch. v. SEC, 883 F.2d 537, 539, 543-45 (7th Cir. 1989), cert. denied, 110 S. Ct. 3214 (1990). See generally 1 HAZEN, supra note 68, § 1.4.1, at 17-20 (discussing SEC and CFTC jurisdictional disputes, as well as subsequent jurisdictional accords and legislation); 2 JOHNSON & HAZEN, supra, § 4.37, at 265-75 (same).

131. See, e.g., 3 JOHNSON & HAZEN, supra note 130, § 5.45, at 127.
132. E.g., Franklin R. Edwards, Stock Index Futures and Stock Market Volatility: Evidence and Implications, COMMOD. L. LETTER, Nov.-Dec. 1986, at 3, 4-5. As other commentators have explained:

Countering this general perception that the stock market has become more volatile in recent years, certain empirical analyses tend to indicate that, on balance, stock market volatility has not been particularly high over the last two years when stock index futures and option activity has increased dramatically. Further, significant reversals in actual stock index levels have not occurred in the one- or two-day periods following sharp changes in the indices on several non-expiration days in 1986. This suggests that such changes have not been aberrations relative to market fundamentals. Some analysts have thus characterized stock index derivative markets as more finely tuned and quickly responsive measures of overall stock market sentiment rather than as independent causes of changing stock market prices.


133. FEDERAL RESERVE BD. ET AL., A STUDY OF THE EFFECTS ON THE ECONOMY OF TRADING IN FUTURES AND OPTIONS 207-209 (1984); see also REPORT OF THE PRESIDENTIAL TASK FORCE ON MARKET MECHANISMS II-1, II-5 (1988) [hereinafter BRADY REPORT] ("[I]t is difficult to argue that the recent increases in volatility represent anything more significant than normal cyclical fluctuations. . . . The conclusion is that prior to October 19, [1987,] there was no systematic evidence to suggest that volatility was at a historical peak."); W. Gary
Since volatility is considered a sign of inefficiency, these studies would seem to confirm that the increase in derivative investments has not undermined the markets.

Stock index futures and options were introduced in 1982 and 1983. As the 1980s progressed, an increasing number of traders had access to more sophisticated computer technology than had been available in the past. Concurrently, the markets experienced the development and rapid increase in the use of various new trading strategies such as program trading and index arbitrage. It was not until 1986 that observers began to worry about the impact that computerized trading would have on the market.134

Program trading involves the use of computers to track price discrepancies between index futures contracts, index options, and the cash value of the stocks underlying the indexes. When a discrepancy appears between the option or futures premium and the cash value of the index, the trader will lock in a profit by arbitraging one against the other. For example, if the futures price is discounted below the cash value, then the trader who is long in stocks will begin a "sell program" in which she will sell the stock and buy the discounted futures contract. Conversely, when the futures are trading at a premium above the cash value, the trader will begin a "buy program" which consists of selling the futures contract and buying the stocks that comprise the index.135

134. See David Sanger, Wall Street's Tomorrow Machine, N.Y. TIMES, Oct. 19, 1986, § 3, at 1. Prophetically, this article was published exactly one year before the 1987 market break.

Some commentators claim that new trading techniques, such as program trading and portfolio insurance have contributed to increased volatility.\textsuperscript{136} A number of studies support this contention.\textsuperscript{137} Others reject this notion, denying the existence of any causal connection between increased volatility and derivative investments\textsuperscript{138} and claiming that other factors are to blame. One such commentator has suggested that "synthetic" stock\textsuperscript{139} and other "dynamic hedging strategies" increase volatility whereas index arbitrage does not.\textsuperscript{140} The explanation for the differing

\begin{itemize}
  \item \textsuperscript{136} See, e.g., Hobson & Tosini, supra note 132, at 13 ("Portfolio insurance programs, which resemble classic hedging techniques, may exacerbate market swings since such programs signal a sale of stocks following a decline of a specified index and purchases of stocks when the value of the index is rising."); see also Hazen, supra note 2, at 801-02 (discussing views of two influential commentators).
  
  \item \textsuperscript{137} See, e.g., Harris, supra note 28, at 1155.
  
  \item \textsuperscript{138} Franklin R. Edwards, \textit{Does Futures Trading Increase Stock Market Volatility?}, \textit{FIN. ANALYSTS} J., Jan.-Feb. 1988, at 63. Compare the opinion of these observers with the contrary conclusion reached by Professor Hans R. Stoll in a study commissioned by the National Association of Securities Dealers. See Hans R. Stoll & Robert E. Whaley, \textit{Volatility and Futures: Message Versus Messenger}, J. PORTFOLIO MGMT., Winter 1988, at 20; Elias Crim, \textit{Just How Volatile is This Stock Market}, FUTURES, May 1986, at 68, 70. Stoll, however, does not point to all futures activity, simply to futures/cash arbitrage. See Stoll & Whaley, supra, at 20. Furthermore, Stoll does not believe that the evidence warrants major regulatory intervention. \textit{Id.} at 22.
  
  \item \textsuperscript{139} Synthetic stock is an investment strategy utilizing options whereby an investor can take the same investment position as if he bought the underlying stock, but on a significantly more leveraged basis than is possible by merely purchasing the stock on margin. Sanford J. Grossman, \textit{An Analysis of the Implications for Stock and Futures Price Volatility of Program Trading and Dynamic Hedging Strategies}, 61 J. Bus. 275, 276-78, 290-92 (1988). Synthetic stock is achieved by selling a put option on a security while simultaneously purchasing a call option with the identical exercise price and expiration date. For example, if ABC stock is trading in January at $35 per share, an investor may be able to sell 10 June 35 puts (covering 1,000 shares of ABC stock) for $2,000 and buy 10 June 35 calls with the same $35 exercise price for $3,000. The investor thus has paid $1,000 for her position. Her investment will increase $1,000 for every one dollar per share increase in ABC stock and will decrease $1,000 for every per share dollar decline. This lets the investor receive the same profit or loss as she would had she paid $35,000 to purchase the 1,000 shares of ABC stock instead of the 10 call and 10 put options covering 1,000 shares.
  
  The difference in premium in the ABC example between the put and call options is due to the market's perception that the ABC stock is more likely to rise than fall between January and June. Synthetic stock can also be used when the market puts an equal premium on each or when the market is predicting a decline and places a higher premium on the call but the investor is willing to take a contrary position. Also, investors might want to take synthetic stock positions at an exercise price either above or below the current market value for the underlying stock.
  
  \item \textsuperscript{140} The Federal Reserve Board's margin rules prohibit the extension of credit for more than 50% of the price of the securities to be purchased. Banks and Banking, 12 C.F.R. § 220.18 (1991). The rules of the exchanges and the NASD prohibit maintaining a credit account when the margin or collateral falls below a certain level calculated on the basis of the types of securities owned. In no event may the margin drop below twenty-five percent of the securities owned. \textit{See N.Y. STOCK EXCH. R. 431(c), N.Y.S.E. Guide (CCH) ¶ 2431 (1990); AM. STOCK EXCH. R. 462(d), Am. Stock Ex. Guide (CCH) ¶ 9472 (1987); NASD R. OF FAIR
impact on overall market volatility between index arbitrage and synthetic stock is that index arbitrage is based on the valid assumption that price is independent of volume; this assumption, however, does not hold when trading synthetic stock.\textsuperscript{141}

The volatility issue has prompted numerous studies over the past few years. An SEC study examining the market decline in September 1986 concluded that the downturn was "a result of changes in investors' perceptions of fundamental economic conditions, rather than artificial forces resulting from index-related trading strategies."\textsuperscript{142} The events leading up to and following the market crash of October 1987 led to numerous studies of the effects of index arbitrage and computerized trading on the stock market.\textsuperscript{143} In contrast to the results of the SEC's 1986 study, reports by a Presidential Task Force and the SEC established that program trading contributed significantly to the stock market decline on October 14-16 and subsequent crash on October 19, 1987.\textsuperscript{144} These two

\textsuperscript{141} Grossman, supra note 139, at 292.


\textsuperscript{144} BRADY REPORT, supra note 133, at 69; SEC 1987 MKT. BREAK STUDY, supra note...
studies of the 1987 "market break" found that, although the declines were caused in part by fundamental factors, the decline was enhanced by program trading.

Both the Presidential Task Force and the SEC study proposed various regulatory reforms. The Presidential Task Force report called for a single regulatory agency that would have oversight responsibility with regard to the various agencies (including the SEC and CFTC) that currently have overlapping jurisdiction over the securities markets. The Task Force suggested that the Federal Reserve Board perform this oversight function. Other proposals included the creation of unified clearing and credit mechanisms, the imposition of unified margin requirements, and a uniform circuit breaker across the various markets.

143, §§ 3-9 to -17. Consequently, mounting evidence indicates that program trading and stock index arbitrage increase market volatility. See also David Wilson, *Industrials Drop 23.27 on Selling Linked to Stock-Index Arbitrage*, WALL ST. J., July 11, 1990, at C2 (describing how industrial stocks fell as a result of futures related trading). But see infra text accompanying notes 150-51 (discussing the results of a recent study commissioned by the New York Stock Exchange). Nevertheless, it is not surprising that conflict exists over the results of the various studies. See, e.g., Kevin G. Salwen, *CFTC Rakes the SEC's Findings On Mini-Crash as Turf War Flares*, WALL ST. J., June 28, 1990, at C1; *SEC Chief Accuses CFTC of Distortion in Mini-Crash Probe*, WALL ST. J., June 29, 1990, at C16.


146. *BRADY REPORT*, supra note 133, at 69.

147. *Id.* at 64.


The New York Stock Exchange is also seeking answers to explain high volatility. A June 1990 study commissioned by the Exchange concluded that program trading was not a factor in wide market fluctuations. The report recommended that instead of regulating program trading, the New York Stock Exchange could control market volatility through circuit breakers. In light of this recommendation, the New York Stock Exchange has implemented a pilot program that restricts the execution of index arbitrage orders on days that the Dow Jones Industrial Average moves fifty points or more from the previous day's close.

The SEC issued yet another report in 1990 analyzing the markets' unprecedented volatility on October 13 and 16, 1989. As described in the report's executive summary:

On October 13, 1989, the nation's securities markets experienced extraordinary price volatility, losing $190 billion in value, $160 billion of which was lost in the last [ninety] minutes [when the Dow Jones Industrial Average experienced 87% of its daily 190.58 decline]. This decline continued into the opening on Monday, October 16, 1989, when the Dow Jones Industrial Average fell an additional 63.16 points (2.46%) in a steep sell-off in the first 40 minutes of trading, followed by an even sharper up-swing to close up 88.12 points (3.43%) from the October 13 close. Servers have questioned the wisdom of circuit breakers. See, e.g., Circuit Breakers May Be Counterproductive, NASAA Says, SEC. WEEK, May 23, 1988, at 12; Unilateral Circuit-breaker Mechanisms Could Destabilize Markets, GAO Warns, 20 Sec. Reg. & L. Rep. (BNA) No. 17, at 656 (Apr. 29, 1988).


151. The new rules provide that once the fifty point limit has been reached, individual transaction orders are to be given priority in execution over those orders entered in connection with index arbitrage. See SEC Approves NYSE Pilot to Restrict Index Arbitrage if DJIA Moves 50 Points, 22 Sec. Reg. & L. Rep. (BNA) No. 30, at 1089-90 (July 27, 1990). These rules were invoked on August 3, 1990, shortly after the adoption of the New York Stock Exchange's restrictions on index arbitrage. See George Anders, Circuit Breakers Help Keep Order In Market Route, WALL ST. J., Aug. 7, 1990, at C1.

October 13 close. The price volatility was accompanied by hourly trading volume levels that rivalled those of the 1987 market break. Even more violent price swings were experienced in the stock index futures markets on both days.153

The recovery by the Dow Jones Industrial Average of 46.24% from its 190.58 point decline on the previous trading day was much greater than the relatively weaker performance of the broader market.154 This indicates that the bounce-back was limited to a relatively narrow universe of stocks, and thus, was not indicative of overall market performance.

In contrast to the conclusion reached in its report of the events of September 1986,155 the SEC report on the October 1989 decline concluded that excessive volatility was attributable to the presence of derivative investments. The report identified the following contributors to the decline: futures trading in speculative accounts; futures trading by options market makers and major broker dealers, who use futures to hedge; put writing by large institutions; and the inability of floor traders of index futures to provide liquidity. The report also found that “[i]ndex arbitrage and other program selling significantly accelerated and exacerbated the market decline.”156 Although some continue to disagree,157 an increasing amount of reliable evidence indicates that many trading strategies employing derivative instruments have added to stock market volatility.

An interesting contrast to the volatile market swings discussed above can be found in the reaction to Iraq's invasion of Kuwait in the summer of 1990. In mid-July, the Dow Jones Industrial Average flirted with the 3000 level. Shortly thereafter, increased fears of inflation and the invasion of Iraq precipitated a decline to the 2700 level. In the first four days following the invasion, the Dow Jones Industrial Average fell nearly 190 points. The declines of August 1990 were relatively steady; the markets were not plagued by the wild gyrations described above.

153. Id. at ES-1.
154. Id. at 1.
155. See supra text accompanying note 142.
Similarly, the market's reaction on January 17, 1991 to the perceived success of the initial Allied attack on Iraq was orderly. The market had its second best day in history, with the Dow average rising more than 114 points. Following this initial rise, the market continued to climb consistently (subject to some minor pull-backs) through mid-February, with the Dow exceeding the 2830 level by February 7, 1991. As in August 1990, the market did not experience the wide fluctuations and volatility associated with the 1987 and 1989 market breaks. The market's orderly reaction to the progress of the Gulf War and increasing prospects that the recession in the American economy would be relatively short contrasts sharply with the type of volatility that marks trading triggered primarily by speculative investments in derivative instruments. One might well conclude that the market reacts in a relatively orderly fashion to developments relating to market fundamentals. Market performance during this period was not plagued with the volatility that many observers attribute to a significant amount of index arbitrage. While the contrast between these market declines is merely anecdotal and thus may not "prove" anything, it provides an inference supporting the growing consensus that investment strategies involving derivative investments have increased market volatility.

Although to date regulators have taken no significant action to curb program trading, many of the major brokerage firms have voluntarily limited or eliminated program trading, at least for their own accounts. How should regulators respond to market performance over the past sev-

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158. Even during the more orderly market rise following the Allied military response to Iraq's occupation of Kuwait, on the few occasions that observers identified a significant amount of program trading activity, the market was more volatile. See, e.g., Robert J. Cole, Zigzagging Dow Up 20.05 to 2,830.69, N.Y. TiMEs, Feb. 9, 1991, at A32 (pointing out that heavy program trading waves contributed to volatile session).

159. By the summer of 1990, a number of regulatory controls were in effect. Circuit breakers had been instituted in a number of markets. Furthermore, the New York Stock Exchange implemented its pilot program requiring that individual orders take priority over index arbitrage orders when the Dow Jones average moves 50 points or more during a single trading day.

In addition to the New York Stock Exchange's limits on arbitrage orders and its circuit breaker mechanism, the decline on August 6 triggered the Chicago Mercantile Exchange's circuit breaker for the Standard & Poor's 500 index, which is called into play by a five point move in the futures contract for that index. It is premature to conclude that these market controls were effective. It is worth noting, however, that on the same day that the Nikkei Index lost more than three percent of its value, the Dow Jones' 93 point decline represented about the same percentage drop. See Anders, supra note 151, at Cl; Marcus W. Brouchli, Tokyo Stocks Reel From Iraq Invasion: Some Expect Repeat of Earlier Plunge, WALL ST. J., Aug. 7, 1990, at Cl.

160. Efforts have been made, however, to limit the effect that index arbitrage can have in contributing to market volatility. See supra note 151 and accompanying text.

ERAL YEARS? Little doubt remains that areas of the futures and the securities markets overlap, resulting in a single market for securities and derivative instruments. It follows that regulation of these overlapping markets should be coordinated. Both the SEC and CFTC have pursued policies favoring proliferation of derivative investments. Although there have been some regulatory reforms, triggered primarily by the major market disruptions discussed above, these reforms have been piecemeal and are not part of a coordinated, well-conceived reevaluation of current policies.

B. CURRENT REGULATORY STRUCTURE—THE JURISDICTIONAL DISPUTE

Both the SEC and CFTC have focused on preventing volatility over the short term and have been increasingly vigilant in policing fraud and manipulation. At the same time, these two agencies, as well as the securities and commodities exchanges, have been engaged in a vigorous turf battle over who will regulate various types of derivative investments. This, in turn, has resulted in continued proliferation of derivative investments. An agency interested in establishing its supremacy over derivative instruments will naturally look favorably upon exchanges’ applications for listing of additional contracts. Rather than focusing on the jurisdictional battles, regulatory philosophy should center on a coordinated approach to restoring the integrity of the markets. Unfortunately, the jurisdictional dispute has thusfar eclipsed the need to get at the root of the problem.

162. It is unclear whether these policies result from a coordinated effort to make the market more efficient. It may well be that the policies of these agencies were prompted by a desire of each to regulate derivative securities.

163. See, e.g., Ruder Seeks Expanded SEC Authority Over Equity-Related Futures Products, 20 Sec. Reg. & L. Rep. (BNA) No. 5, at 171 (Feb. 5, 1988). The turf battle is not merely one between two administrative agencies; it carries over to important Senate and House committees. The CFTC and the Commodity Exchange Act generally are subject to oversight by the agriculture committees while securities regulation and the SEC fall within the purview of the banking committees.

164. See, e.g., U.S. GENERAL ACCOUNTING OFFICE, REPORT ON SECURITIES AND FUTURES MARKETS, [1990-1991 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 84,612 (Aug. 1, 1990) (noting that the CFTC and SEC have been giving differing interpretations of the causes of various market disruptions). While the SEC has determined that index arbitrage has contributed to market volatility, the CFTC disputes this conclusion. Compare Staff Report Says Circuit Breakers Did Not Hurt Markets In '89 Declines, 22 Sec. Reg. & L. Rep. (BNA) No. 22, at 821 (June 1, 1990) (SEC study concluding that circuit breakers had positive effects on the market) with Shock Absorbers Did Not Curb Volatility In Oct. 1989 Market Swings, Report Says, 22 Sec. Reg. & L. Rep. (BNA) No. 20, at 774 (May 18, 1990) (CFTC study stating that futures exchange trading restrictions implemented after the 1987 stock market break did not lessen volatility in October 1989) and Gramm Says SEC Crash Report Selectively Omitted Key Data, supra note 157, at 1013-14 (challenging SEC reports that claimed that circuit breakers adopted by the Chicago Mercantile Exchange had positive effects on the market). See, e.g.,
The SEC initially took the position that futures contracts on securities were subject to its jurisdiction because such instruments clearly fell within the statutory definition of "security." However, the commodities exchanges, recognizing the business that could be derived from listing financial futures contracts, wanted to list futures contracts on government securities.

In 1981, representatives of the SEC and CFTC met in hopes of eliminating the confusion concerning the jurisdictions of the two agencies. The resulting Johnson-Shad Accord was incorporated into the Commodity Exchange Act, the Securities Act of 1933, and the Securities Exchange Act of 1934. Under the terms of the Accord and resulting legislation, the SEC retained jurisdiction over options on securities while the CFTC was granted exclusive jurisdiction over futures contracts and options on futures contracts if the underlying commodity is either (1) a government security that is exempt from registration under the securities acts or (2) an index based on a group of securities.

The CFTC currently has jurisdiction over futures contracts on individual government securities, on indices of stocks and municipal bonds, and options on such futures contracts. The SEC has jurisdiction over stock index options while the CFTC presides over stock index futures. Although options on foreign currencies are conceptually commodities instruments, the SEC has jurisdiction over them if they are traded on a national securities exchange; the CFTC regulates foreign currency futures and options that are not traded on a national securities exchange.

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Eben Shapiro, Circuit Breakers: Maybe They Work, Maybe They Don’t, N.Y. TIMES, July 29, 1990, § 3, at 7.

The ability of the CFTC to stand its ground in the current jurisdictional turf battle is dependent in large part on a view that more stringent regulation and coordination of derivative investments is not necessary.

165. "Security" is defined in § 2(1) of the Securities Act of 1933 and § 3(a)(10) of the Securities Exchange Act of 1934, 15 U.S.C.A. §§ 77b(1), 78c(a)(10) (West Supp. 1991), to include "any note, stock, [or] investment contract." The courts generally have given a broad reading to the term "investment contract." See, e.g., Reves v. Ernst & Young, 110 S. Ct. 945, 955 (1990) (holding demand note to be a security); SEC v. W.J. Howey Co., 328 U.S. 293, 300-01 (1946) (holding orange grove interest and management contract to be a security); see 1 HAZEN, supra note 68, § 1.5, at 43.


167. See supra note 166.


The 1981 jurisdictional accord now is being reconsidered in light of the various market disruptions discussed above coupled with some highly publicized charges of manipulation in many of the commodities markets. Unfortunately, the commodities and securities industries and their respective regulatory agencies seem to be more concerned with waging a turf battle than in seeking a well-reasoned solution to any existing problems.

As mentioned above, several proposals for regulatory reform have been proffered. The Presidential Task Force recommended the institution of circuit breakers that would cause automatic trading halts in the face of excessive volatility. Under this proposal, the futures markets would not be permitted to reopen until the underlying markets are restored to relative equilibrium. This is one hopeful sign of support for increasing regulation of short-term trading strategies—at least when such strategies become excessively volatile. Similar recommendations emanated from a study commissioned by the New York Stock Exchange.

Circuit breakers certainly help deal with the snowball effect triggered by panic reaction to news or major market movement. Nevertheless, these types of controls merely address the symptoms without attempting to cure the disease. If, in fact, the markets are excessively volatile, then appropriate action should be taken to get at the root of the problem. With the increasing evidence of a correlation between the proliferation of derivative investment vehicles and market volatility, the time has come to reconsider the current laissez-faire policy in granting new listing applications. Perhaps the SEC and CFTC should consider delisting of some of the current options and futures contracts.

Other proposals that go more directly to the root of the problems than the imposition of circuit breakers include separating the expiration dates for options on individual securities, stock index options, index fu-

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68, § 1.4.1, at 19; 2 JOHNSON & HAZEN, supra note 130, §§ 4.31-4.43, at 257-86; cf. Robert B. Hiden & Donald R. Crawshaw, New Instruments, Foreign Currency Warrants and Section 4c(f) of the Commodity Exchange Act, COMM. L. LETTER, Apr.-May 1988, at 11, 12 (comparing the jurisdictional boundaries of the SEC and the CFTC).

170. See BRADY REPORT, supra note 133, at 69.

171. See supra notes 145-49 and accompanying text.

tures, and the like. By avoiding the perils of triple witching hour, the markets are more likely to proceed in an orderly fashion.

Another potential reform measure would be to centralize federal regulatory control of the financial markets. However, this would cause a turf battle between the securities and commodities exchanges and the SEC and CFTC. While regulatory coordination may help, it is not the ultimate solution. What is needed is a well-balanced approach to meeting the desires of investors to have alternative investment vehicles while at the same time discouraging the unchecked proliferation that has exacerbated an already volatile market environment. Another type of coordination that has been suggested is the return to the concept of a national market system which would replace the current fragmented environment with several exchanges and over-the-counter markets. As is the case with regulatory consolidation, market unification may increase efficiency but it would not address the primary problems. Consolidation and unification simply do not tackle the problem of the market's hypersensitivity to short-term factors, nor do they address the question whether to continue the proliferation of derivative investment instruments.

Many current investment strategies involve options and futures that by their nature have short-term investment goals. Participants in the options and futures markets tend to be large investors who take large positions. With many large block transactions in stocks reflecting various hedging and straddle strategies, stock prices stand to be affected by participants in the options and futures markets.

173. "Triple witching hour," which occurs four times per year, is the last hour of trading on those days when all the options on individual stocks, index options, and index futures expire. Substantial evidence indicates that the markets are more volatile on these days. See, e.g., Steven P. Feinstein & William N. Goetzmann, The Effect of the "Triple Witching Hour" on Stock Market Volatility, ECON. REV., Sept.-Oct. 1988, at 2. Other studies show that prices are also more volatile on other expiration days. Theodore E. Day & Craig M. Lewis, The Behavior of the Volatility Implicit in the Prices of Stock Index Options, 22 J. FIN. ECON. 103, 122 (1988); Robert A. Strong & William P. Andrew, Further Evidence of the Influence of Option Expiration on the Underlying Common Stock, 15 J. BUS. RES. 291, 300-01 (1987).


175. Chiappinelli, supra note 143, at 144. In the mid 1970s, there was a big push for replacing the current multi-exchange/over-the-counter marketplace with a single, unified national market system. Congressional action spurred SEC studies. Aside from a more efficient over-the-counter system and more coordinated efforts in clearing agency operations, however, not much change resulted from these efforts. See 1 HAZEN, supra note 68, § 10.13, at 584.

176. See supra notes 131-35 and accompanying text.
Current regulatory philosophy is based on the assumption that derivative investments may improve the market by providing increased opportunity for arbitrage and, thus, keeping share prices, both individually and in terms of the major stock indexes, in line with their fair value. This explanation, however, is counterintuitive when one considers the amount of trading volume associated with index arbitrage and other forms of options and futures trading. If one accepts the downward sloping demand model, the market is overreacting to the effects of large block transactions. Such overreaction provides additional fuel to the shortening of investors' time horizons. To the extent that the market overreacts, opportunities are presented whereby astute investors can take advantage of the overreaction. This result is one of several factors in the current market pushing towards focus on the short term.

Trading of index options and futures exacerbates the problems created by large block transactions. Since many trading strategies involve hedging derivative instruments against underlying stocks, "sell" and "buy" signals trigger a large volume of transactions.\(^{177}\) It follows that index trading, like other option strategies, does affect share pricing. This makes the market a dangerous place for longer-term investors, which in turn may dissuade corporate managers from managing for the long term.

Coordinating the regulation of derivative instruments does not necessarily require radical alteration of the current regulatory structure. Nevertheless, in June 1990 the Bush administration introduced legislation that would have transferred jurisdiction over stock index futures from the CFTC to the SEC.\(^{178}\) What then would happen to the futures contracts that are currently traded on commodities exchanges? One possibility would be to have CFTC regulation of traditional commodities futures, but have SEC supervision with regard to index futures. This could prove extremely difficult in terms of the different regulatory structures of the two agencies. Alternatively, all derivative instruments relating to stock could be required to take place on a securities exchange. If the current system of dual regulation is deemed inappropriate, then a better decision would be to eliminate stock index futures as commodities and to allow the securities exchanges to trade comparable investment vehicles. Such an approach doubtless would be opposed vigorously by the commodities exchanges, which derive a substantial amount of their reve-

\(^{177}\) For a discussion of the effects of options and futures contract expiration on the equity markets, see *supra* note 173.

nue from index futures. In addition, limiting the transfer of jurisdiction to stock indexes may not be sufficient to establish the goal of uniform regulation for similar instruments. Interest rate and currency futures markets, as well as precious metals markets, have attributes similar to stock indexes. It might not be feasible to transfer all of these contracts to securities exchanges and the SEC’s jurisdiction.  

The short-term nature of options and futures contracts necessarily draws investor attention to short-term concerns. While hedging and other option strategies can be a helpful counterpart to an investor’s long-term investment strategy, problems arise when the market becomes excessively driven by short-term rather than long-term concerns. A continued lack of coordination in regulation of the options and futures markets will likely lead to an unbridled increase in derivative instruments, thereby adding further fuel to the short-term direction of the equity markets. The time has come for regulators to reconsider their laissez-faire approach to options and futures.

IV. THE EFFECTS OF CURRENT INVESTMENT STRATEGIES ON CORPORATE MANAGEMENT

A. Role of the Investment Markets

Managers and directors of publicly held companies in the United States properly have identified shareholder wealth maximization as one of their goals. Many executives, however, focus primarily on this goal, to the neglect of longer-term considerations. Some observers feel that this results partly from a desire on the part of institutional investors to “dress up” their portfolios. In today’s investment climate, a number

179. One possibility for line drawing would be to adopt a functional approach in allocating jurisdiction between the CFTC and the SEC over hybrid investment vehicles. The Futures Trading Practices Act of 1991 as adopted by the Senate would allocate jurisdiction to the CFTC if more than 50% of the overall value or expected change in value of the instrument is attributable to the commodity component. See Senate Comm. on Agriculture, Nutrition and Forestry, S. Rep. No. 22, 102d Cong., 1st Sess. 166-67 (1991). It is highly questionable whether this represents anything more than an attempt to arrive at a truce in the turf battle between the SEC and CFTC. Furthermore, it is doubtful that the functional test as proposed is workable.


181. Many mutual funds engage in “window dressing,” purchasing blue chip and growth stocks to present a more attractive quarterly or annual report. Frequently, the “window dressing” will be removed once the reports are disseminated. Surveys of public pension fund managers reveal that although they claim to be concerned primarily, if not exclusively, with long-term issues, they appear to be “endlessly” looking at short-term indicators. John M. Conley &
of mutual funds engage in short-term trading strategies rather than focusing on the market or on particular stocks for the long haul. Institutions that trade in options and futures tend to justify their activities as hedging rather than short-term speculating. Nevertheless, observers have noted that institutional money managers make their portfolio selections based on comparisons of immediate returns. Accordingly, institutional investors' portfolio turnover has increased significantly since the 1960s. This turnover adds to market volatility by encouraging short-term swings in reaction to these institutions' large block transactions.

Although not all observers agree, many have suggested that corporate managers' obsession with short-term shareholder wealth maximization has, in many cases, diverted their attention away from the efficient operation of their companies. By focusing on market performance over a short time horizon, corporate managers necessarily are reacting to the trading patterns of institutional investors.

The close relationship between corporate managers and investment bankers in this country may be further exacerbating the excessive short-term focus of corporate managers. Some commentators have claimed that this has harmed America's competitive position in relation to Germany and Japan where there is a much stricter separation of commercial and investment banking operations. They suggest that the close relationship between investment bankers and the commercial community encourages corporate managers to be more concerned with the short-term investment concerns than the longer-term concern for the business enterprise.

William M. O'Barr, *The Culture of Capital*, HARV. BUS. REV., Mar.-Apr. 1991, at 110, 111. In the case of five of the seven funds studied, short-term investments accounted for from five to ten percent of their assets. Id. While this might seem like a reasonable percentage, it amounts to billions of dollars.


185. See, e.g., Hu, supra note 8, at 332-47.


187. See Ellsworth, supra note 180, at 179. However, as pointed out below, there is evidence of increasing institutional ownership in Japan. See infra notes 212-13 and accompanying text.
Other commentators believe that market forces have not interfered with management's ability to focus on the long term.\(^8\) That companies continue to make long-term financial commitments by investing in new plants and equipment as well as research and development demonstrates that they have not completely forsaken long-term concerns. Nevertheless, it seems abundantly clear that most corporate managers are focusing too much on short-term considerations.

**B. Managerial Compensation and Takeover Threats**

While much of the foregoing discussion has highlighted the role of the investment markets in shrinking the time horizons of corporate managers, managerial compensation is another likely culprit. Compensation packages often are structured so as to keep managers more concerned with day-to-day operations and profitability than with long-term planning. High level corporate managers generally receive a generous annual salary, but this forms only part of the typical compensation package. Stock option plans, bonus plans, and other forms of profit-sharing plans add significantly to the total compensation. A number of observers have suggested that tying management compensation to indicia of company performance, such as quarterly sales, earnings, or price per share, further encourages decisionmaking with short-term horizons.\(^9\) When compensation is tied to stock performance, little correlation may exist between good day-to-day, long-term management and well-compensated management.\(^1\)\(^9\)

The generally accepted view has been that profit-sharing is an effective way of motivating corporate managers to maximize the value of the company.\(^1\)\(^1\) Others have observed, however, that such a compensation

\(^8\) See, e.g., Gary Hector, Yes, You Can Manage Long Term, FORTUNE, Nov. 21, 1988, at 64. Hector gives three anecdotal examples of companies that are making management decisions by focusing on the long term: Coca Cola, Walt Disney, and Hillebrand Industries. Id. at 65-74. For example, he points to Walt Disney's expansion into foreign markets by building a two billion dollar theme park in France that will take more than ten years to recoup its investment. Id. at 68; see also Hu, supra note 8, at 355-66 (asserting that managers should focus on shareholder wealth maximization). Professor Hu further argues that corporate managers' time horizons include a proper balancing of short-term and long-term factors. Id. at 360-61.

\(^9\) Jacob Noar, How to Motivate Corporate Executives to Implement Long-Range Plans, MICH. ST. BUS. TOPICS, Summer 1977, at 41, 42.

\(^1\)\(^9\) These problems were recognized long ago in a series of cases involving the American Tobacco Company, whose key employee compensation was tied to stock performance, a practice that was out of line with comparable businesses. See Rogers v. Hill, 289 U.S. 582, 590-92 (1933); Heller v. Boylan, 29 N.Y.S.2d 653, 664-92 (Sup. Ct.), aff'd without opinion, 263 A.D. 815, 32 N.Y.S.2d 131 (1941). Quite properly, courts rarely if ever interfere with management compensation plans.

\(^1\)\(^1\) See, e.g., Amin H. Amershi & Shyam Sunder, Failure of Stock Prices to Discipline Managers in a Rational Expectations Economy, 25 J. ACCT. RESEARCH 177, 178 (1987); Rick
system is dependent upon the manager's ability to evaluate correctly investors' beliefs and to predict accurately investor reaction to the manager's decisions.\textsuperscript{192}

It is typically assumed that in an efficient market, stocks are valued in large part on the discounted future value of cash flow, earnings, and dividends.\textsuperscript{193} To the extent that this assumption is true, managers will be encouraged to focus on short-term performance to secure their own compensation.\textsuperscript{194} Tying management compensation to stock price is an effective reward system when the stock price bears a relationship to managers' efforts.\textsuperscript{195} Such compensation plans, however, encourage long-term planning only if the stock price accurately reflects the discounted value of cash flow, earnings, and dividends well into the future. If the stock price unduly emphasizes near-term returns, then such a compensation scheme would discourage a manager from instituting policies that entail capital expenditures geared to a longer view of future returns. Because of these shortcomings, tying management compensation to stock performance is not the optimal way in which to encourage management to engage in value-maximizing strategies.

Some studies have indicated that the value of successful bidder firms in corporate acquisitions correlates positively with the extent to which the bidder firm's shares are owned by its managers.\textsuperscript{196} This correlation may indicate a belief that the greater the stake managers have in their own companies, the more their interests match those of the shareholders. It follows that when corporate managers' compensation is tied to their company's stock performance, many managers may evaluate acquisitions more in terms of the short-term effects on their investment than on the long-term consequences for the constituent companies.

There is considerable evidence that stock prices do not accurately discount the future.\textsuperscript{197} One explanation is that not all investors act homogeneously in valuing shares. Economists describe irrational or "aber-
rant” investor behavior as market “noise” that interferes with efficiency. To the extent that corporate managers focus on the fundamental factors that are traditionally accepted as affecting stock prices, they are ignoring the “noise” and therefore may not be making decisions consistent with the market’s perception of what is needed for the company to maximize value.

Many observers contend that the threat of takeover keeps management focusing on value-maximizing strategies and that management’s failure to maximize value will result in a bidder for control offering a substantial premium. However, the costs of proxy fights, tender offers, or other control mechanisms for ousting management are high. Therefore, they do not provide an efficient mechanism for bringing management policies into line with value maximization. Moreover, there seems to be a growing belief that corporate takeovers are not value-creating, but instead merely transfer existing value to the shareholders of the target company. If true, then managers’ attempts to replicate the effects of a takeover through a management buyout would be equally ineffective in maximizing value.

Corporate takeovers may encourage value maximizing decisions in other ways. For example, if management can prevent its company’s stock from being undervalued, potential acquirors will not be willing to pay a large takeover premium. Thus, the ever-present threat of takeover may encourage corporate managers to make decisions that they believe will make the stock attractive to investors and thereby create a buying demand that will support the stock price. Evidence persists, however, that managers do not accurately perceive the factors that will enhance

198. Economists accept that markets are “noisy,” but adherents to the Efficient Capital Market Hypothesis argue that the effect of noise is factored into the market price. See supra text accompanying notes 89-93.

199. See Amershi & Sunder, supra note 191, at 185-93.

200. Id. at 190.

201. Id. at 190-91 (relying on Jan Mossin, The Economic Efficiency of Financial Markets 143 (1977) and F.M. Scherer, Industrial Market Structure and Economic Performance 37-38 (2d ed. 1980)).

202. See supra notes 7-8 and accompanying text.


Despite the criticisms of management buyouts (MBOs), it has been suggested that they may be the only viable response to a hostile bid that would prevent breaking up the company. Coffee, supra note 5, at 10. However, many leveraged buyouts (LBOs) and MBOs also will eventually result in some break-up because of the necessity of raising funds to pay off the debt obligations incurred as a result of the buyout.
value. Thus, the takeover threat, as well as the current practice of tying management compensation to the stock price, may be ineffective in encouraging managerial decisionmaking that maximizes the firm's value. In fact, when management compensation or the fear of takeover drives decision making, long-term planning may be neglected.

C. The Role of Institutional Investors in Corporate Governance

Institutional investors today dominate shareholder rolls throughout the nation's largest corporations. Earlier, this Article considered the effect of increased institutional trading upon market volatility. Institutional investors also have a significant and growing impact on corporate governance, which prompts an examination as to whether institutional investors are contributing to the excessive short-term focus by corporate management.

Until recently, institutional investors tended to side with incumbent corporate management. It was commonly assumed that institutional investors, with their generally conservative investment goals, did not want to be involved with companies in the throes of turmoil. The best way to avoid turmoil was to side with management. If management was not performing satisfactorily, institutional investors typically responded by selling their shares.

In the past several years, however, institutional investors have become far more active in corporate affairs. Not only have institutional

204. See Amershi & Sunder, supra note 191, at 178-79.
205. Id.
207. See supra text accompanying notes 181-86.
208. Some have expressed concern about the effects of so much power being concentrated in the hands of a few. See, e.g., Peter F. Drucker, The Unseen Revolution—How Pension Fund Socialism Came to America 1-46 (1976).
investors become active voters, they also have taken the initiative through shareholder proposals designed to bring corporate managers more in line with the goals of institutional money managers. In sharp contrast to their earlier support for management, institutional shareholders in recent years have opposed management entrenchment devices such as the poison pill. Such opposition to anti-takeover devices is designed to retain an active market for corporate control which, as discussed earlier, leads to increased emphasis on short-term maximization of shareholder wealth. Thus, the growth of institutional investing may be yet another factor in influencing management to focus on near-term performance.

D. Empirical Evidence on the Length of Managers' View

Measuring empirically the time horizon managers of American corporations use in planning is obviously difficult. Although several studies relating to these issues have been undertaken, the results, perhaps not surprisingly, are in conflict.

In 1985 the Office of the Chief Economist of the SEC published a study addressing the issue of whether the threat posed by hostile tender offers “preoccupies corporate executives with propping up short-term earnings, at the expense of investing in long-term projects, such as research and development.” The Chief Economist found that market forces are not the cause of chronic short-termism on the part of American corporate managers. The study notes that many critics of the supposedly short-term focus of corporate managers point to the long-term view taken by Japanese companies. In reality, the study found, there has been a dramatic increase in institutional ownership of shares of Japanese companies during the past forty years. Rather than encouraging Japanese managers to focus on short-term goals, however, increasing institutional ownership of Japanese companies apparently has induced that country’s managers to focus on the long term. Thus, concludes the

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(Stating that increased concentration of capital in institutional investors has led to a more short-term view).

210. OFFICE OF THE CHIEF ECONOMIST, SEC, INSTITUTIONAL OWNERSHIP, TENDER OFFERS, AND LONG-TERM INVESTMENTS 1 (1985) [hereinafter CHIEF ECONOMIST STUDY]. I do not refer to this as the SEC's study because the study begins with the following disclaimer: "The views expressed herein are those of the Chief Economist only. The Commission has expressed no view on this study." Coverpage to id.

211. Id. at 2 n.2.

212. Id. The study relied on another Japanese research project which points out that from 1950 to 1982, institutional ownership of Japanese companies rose from 38.6% to 71.9%. JAPANESE SECURITIES RESEARCH INSTITUTE, SECURITIES MARKETS IN JAPAN 1984 (1983).

213. CHIEF ECONOMIST STUDY, supra note 210, at 2 n.2 (quoting C. CARL PAGELS, JAPAN VS. THE WEST 13 (1984)). Mr. Pagels observes:
study, market forces such as institutional ownership are not a factor in the differing time horizons of Japanese and American managers.

The Chief Economist's study is not based on hard data but, nevertheless, notes that "there is an abundance of indirect evidence that is inconsistent with the short-term argument." For example, the study points to evidence that stock prices reflect time-discounted cash flows rather than reported earnings. Cash flow certainly has become increasingly important in share pricing as it relates to the market for corporate control. The market for corporate control that flourished in the 1980s was based in large part on leveraged financing. As such, a company's cash flow became important as a measure of the amount of debt that could be serviced. In the Delaware case *Smith v. Van Gorkom* management's valuation of the company in a buyout context was based on the amount of debt that could be serviced in connection with the acquisition. The fact that cash flow may be an important factor in share pricing, however, does not undermine the argument that in making decisions affecting earnings and cash flow, corporate managers have been concerned with the threat of takeovers and, thus, have focused primarily on the short-term. The Chief Economist's study is not terribly convincing in refuting this argument.

Robert Buzzell and Mark Chussil conducted a study similar to the Chief Economist's. This study evaluated the performance of 178 companies based on their discounted cash flow and market value. The authors concluded that most of the companies achieved results significantly

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"In Japan, where virtually all equity is held by banks and large investment firms, the concern for short-term performance is not nearly as acute [as] for longer-term prospects. As a result, Japanese firms are not as concerned as Western firms about short-term profits or, for that matter, profits in general."

*Id.* (quoting Pagels, supra, at 13).

214. *Id.* at 3.


216. *Id.* at 865. This was not based solely on cash flow since the target company had investment tax credits which functioned as the equivalent of cash to an appropriate acquiror. Ironically, the court held that the valuation was not protected by the business judgment rule because, among other things, the directors acted precipitously within a two-hour meeting and did not shop the company around. *Id.* at 871, 893.

217. The study also points to the fact that price-to-earnings ratios vary widely as further evidence that corporate managers are not preoccupied with beefing up earnings in the short-term. However, the mere fact that the market may take other factors into account does not detract from the claim that earnings can be significant. CHIEF ECONOMIST STUDY, supra note 210, at 3.

below their potential.\textsuperscript{219} The authors surmise, in contrast to the Chief Economist's study, that corporate managers in fact are concentrating too much on short-term earnings and are unwilling to make the up-front capital investments necessary to help achieve the long-term growth potential.\textsuperscript{220}

The Chief Economist's study also examined the relationship of institutional ownership to research and development expenses and concludes that institutional ownership does not lead to a decrease in such expenditures.\textsuperscript{221} The absence of a correlation between institutional ownership and research and development expenditures does not refute the short-term argument, however. First, many of the glamor stocks during the 1980s were high-technology companies that thrive on research and development. Thus, not surprisingly, the study found that the capital market positively valued companies embarking on research and development projects.\textsuperscript{222} Furthermore, recent anecdotal evidence conflicts with the study's conclusions: one outgrowth of the leveraged buyout of R.J. Reynolds Industries, Inc. was the suspension of expenditures on development of a smokeless cigarette.\textsuperscript{223} Furthermore, at least one recent study did find an inverse relationship between institutional holdings of computer stocks and an increase in research and development expenditures.\textsuperscript{224} On the other hand, a 1989 study found a direct correlation between research and development expenditures and institutional ownership for large firms involved in research-intensive industries.\textsuperscript{225}

Because the available studies on research and development expenditures reached such contradictory conclusions, they do not shed much light on the extent to which corporate managers are paying attention to long-term concerns. Moreover, since these studies focus on research intensive industries, they may well be more dedicated to research and development than American industry taken as a whole.

Even after devoting careful attention to the studies of managerial

\textsuperscript{219} Less than one third of the companies studied achieved more than 60\% of their potential. \textit{Id.} at 8-10.

\textsuperscript{220} \textit{Id.} at 10-11.

\textsuperscript{221} \textbf{CHIEF ECONOMIST STUDY}, \textit{supra} note 210, at 4-8; see Buzzell & Chussill, \textit{supra} note 218, at 10-11.

\textsuperscript{222} \textbf{CHIEF ECONOMIST STUDY}, \textit{supra} note 210, at 6-7; see Buzzell & Chussil, \textit{supra} note 218, at 12-13.

\textsuperscript{223} \textit{Safer Cigarettes}, \textit{N.Y. TIMES}, March 3, 1989, at A38.


time horizons, one is likely to feel no closer to an ultimate answer to the question whether American management has an undue short-term bias in its business outlook. Factors such as cash flow and research and development spending are subject to so many varying influences that one can always conjure up an alternate explanation for a seemingly correlational relationship. Moreover, deciding if managers focus "too much" on near-term performance requires a conclusion that is ultimately subjective. Nonetheless, an examination of executive behavior in a particular context—a threatened or actual takeover—may shed some further light on the issue of managerial time horizon.

V. CONTROL-RELATED TRANSACTIONS AND THE SHORT-TERM/ LONG-TERM DEBATE

A. Taking Advantage of Discounts—The Market for Control

Over the past several years, observers of American business have witnessed a dynamic market for corporate control. The proliferation in the 1980s of hostile takeovers raised a number of questions, not the least of which is the extent to which target company managers should be permitted to use defensive tactics.\(^{226}\) The trend in recent case law has been to focus corporate managers' concerns, not in terms of the best interests of the company in terms of the long-term maximization of shareholder profits, but rather in terms of short-term maximization of shareholder wealth.\(^{227}\) Having management focus on short-term shareholder wealth

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\(^{227}\) See, e.g., Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 182 (Del. 1986). Short-term maximization of shareholder wealth also has been said to be the only issue when dealing with management buyouts. See, e.g., Dale Oesterle & Jon Norberg, Management Buyouts: Creating or Appropriating Shareholder Wealth?, 41 VAND. L. REV. 207, 251 (1988); Hazen, supra note 203, at 2.

Few would doubt that encouraging multi-bidder takeovers helps maximize shareholder wealth. A recent study found that premiums in multi-bidder offers range from 42-46%, while premiums in single bidder offers range from 26-30%. Michael Bradley et al., Synergistic Gains
maximization is contrary to what many would describe as the sounder policy of focusing on long-term goals. 228

The market for corporate control as embodied in the proliferation of corporate takeovers, management buyouts, and corporate restructuring has brought a great deal of publicity to the wide disparity between market price and asset value. This disparity results in a discounted public market for securities. A number of explanations have been offered for the disparity between market price and asset value. Some observers claim that the discount reflects the market's assessment of the performance of current management. 229 At first blush this explanation seems appealing. It is almost intuitive that an effectively managed company should have a going concern value that is greater than its asset value since it is up to management to use the company's assets efficiently. While management inefficiency might explain some takeovers, however, it clearly does not explain all of the takeover activity that occurred in the 1980s. 230 Many well-managed companies succumbed to high-premium, control-related transactions. 231 Furthermore, many takeovers are management-led; if the explanation for the discrepancy between a company's market value and its take-out value is that it is being run by inefficient management, then a management-led buyout reflects management's concession that it has been managing the company inefficiently. 232

from Corporate Acquisitions and Their Division Between the Stockholders of Target and Acquiring Firms, 21 J. FIN. ECON. 3, 21-25 (1988).

228. See, e.g., Robert J. Haft, Business Decisions by the New Board: Behavioral Science and Corporate Law, 80 MICH. L. REV. 1, 5 (1981) ("There is growing recognition by the corporate establishment in America that its priorities should be reordered to achieve profit maximization in the long-term rather than in the short-term."). One commentator has suggested that equating shareholder wealth maximization with the proper outcome is based on a "crude sort of utilitarianism." Christopher D. Stone, Corporate Social Responsibility: What It Might Mean, If It Were Really to Matter, 71 IOWA L. REV. 557, 570 (1986).


230. The suggestion that discounts reflect the market's assessment of management has been disputed in many quarters. See Kraakman, supra note 9, at 904.

231. See, e.g., SEC ADVISORY COMMITTEE ON TENDER OFFERS, REPORT OF RECOMMENDATIONS 34 (1983) ("[W]hile in certain cases takeovers have served as a discipline on inefficient management, in other cases there is little to suggest that inefficiency of target company management is a factor . . . .").

232. There might be some truth in this claim. Managers might argue that their desire to take the company private is motivated by their desire to maximize shareholder wealth in the face of a market that is undervaluing the firm's shares. Managers' willingness to pay for the company presumably also is motivated by a belief that they and their financial backers will profit from the transaction. Thus, those backing a management buyout must believe that they will receive a favorable return on their investment. Considering the costs of a leveraged transaction, it probably is anticipated that the expected return will exceed any profits from alternative investments. The question then becomes whether managers should offer existing shareholders the choice of participating in the future returns on this basis.
Apart from the inefficient management rationale, another explanation for the discrepancy between market value and take-out value is that trading in the public market reflects a discount for minority shares and it is only in a control-related transaction that the premium emerges.\textsuperscript{233} Because minority shares do not have the power to transfer control of the company, the market gives them a control premium only when the company has been put in play by controlling shareholders or management who are willing to put the company up for sale. Someone desiring to take control of the company can, by offering the premium to minority shares, make it attractive for them to sell. When sold, these shares that were formerly widely dispersed become concentrated in the hands of the bidder, who may be able to take control or at least get representation on the board of directors by voting the shares together.

The ability to enter into control-related transactions has increased as a result of the availability of huge amounts of debt financing from financial institutions or from high-yield high-risk debt financing, more popularly known as "junk bonds." The availability of debt financing increases the number of potential buyers, thus narrowing the gap between a firm’s market value and its takeover value.\textsuperscript{234} With the decline of the high-yield "junk bond" bond market, however, many companies formerly identified as potential takeover targets have lost some of their value. Over the past year, hostile take-over activity has decreased while the number of friendly business combinations correspondingly has risen. In the absence of debt financing, hostile takeovers must be conducted through proxy machinery, thereby coercing management to go along on a friendly basis.\textsuperscript{235} Thus, although the mechanics have changed and the level of activity has declined, corporate combinations and restructuring remain a factor in valuing companies' shares.\textsuperscript{236}


\textsuperscript{234} The nearly two-hundred point decline in the Dow Jones Industrial Average on October 13, 1989 may have been due in large part to the decreasing liquidity of junk bonds. Accordingly, many stocks, their price reflecting the potential for a takeover premium, lost a portion of that premium.

\textsuperscript{235} This, for example, has been the case with AT&T's recent acquisition of NCR Corp. See \textit{A.T. & T. Deal for NCR Final}, N.Y. TIMES, Sept. 20, 1991, at D4.


\begin{quote}
Several studies show indications of systematic reductions in stock prices of bidding
As another possible explanation for the disparity between a company's market value and asset value, some observers claim that the corporation cannot be explained in terms of simple concepts of ownership, since a corporation consists of a nexus of contractual relationships and that this, in turn, partially explains the market's pricing of securities. Proponents of this theory postulate that the discount reflects the fact that corporate managers and shareholders have differing risk preferences. To the extent that investors are more risk averse than corporate managers, their risk aversion will result in a more conservative investment and, thus, may depress the value of the stock. Assuming that corporate managers, as owners of the business, are less risk averse, they will be willing to pay more for the company in light of the potentially higher returns that may ensue from their greater risk-taking.

Professor Coffee has suggested that the discount also is explicable as a failure in the managerial compensation system. While corporate managers generally seek deferred job security, shareholders ordinarily bear such business risks as insolvency. Some observers claim that the hostile takeover movement can be seen as a way of shifting this risk to management. Management buyouts can similarly be viewed as a result of the conflicting risk-taking strategies of corporate managements and shareholders.

B. Post Acquisition Evidence

If acquisitions are, in fact, value-enhancing transactions, then it can fairly be said that they are consistent with long-term interests. On the other hand, if acquisitions are proven unsuccessful, this would show that bidders are paying too much and that the ultimate price paid for realizing the short-term goal of shareholder-wealth maximization will be decreased productivity or efficiency in the long term.

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237. See, e.g., Harold Demsetz & Kenneth Lehn, The Structure of Corporate Ownership: Causes and Consequences, 93 J. POL. ECON. 1155, 1176 (1985) (asserting that the "structure of corporate ownership varies systematically in ways that are consistent with value maximization").

238. Coffee, supra note 5, at 9.

239. Id. at 8-9.

240. "[T]he hostile takeover can be seen not simply as a mechanism that compels a management to accept that level of business risk that shareholders deem appropriate, but as a means by which shareholders outflank the safeguards managers obtained to protect the promises of deferred compensation and job security." Id. at 24.
A number of studies have analyzed the effect of mergers and other business combinations on the value of the target company. Studies in the 1970s and 1980s assessed post-takeover returns and revealed that takeovers increased the value of target company stock. Such studies have led some commentators to conclude that “[f]inancial markets reward well-managed firms.” Many proponents of the law and economics movement share this view. Many target companies, however, were well-managed prior to being taken over. This fact has persuaded some observers that management ineffectiveness does not explain many of the takeovers of the 1980s.

One important article concludes that, although the shareholders of target companies generally fare well as a result of a takeover, the shareholders of bidder firms do not do as well. The target company stock rises in anticipation of the increased efficiency resulting from the merger and, thus, the bidder may not participate fully in the gains from these


242. When evaluating the studies dealing with post-merger value, it is important to remember that they focus on share value—that is, shareholder wealth maximization. These studies are valid indicia of a firm’s long-term health only when present value represents discounted future value rather than other factors, such as discounted cash flow.

243. Larry H.P. Lang et al., Managerial Performance, Tobin’s Q and the Gains from Successful Tender Offers, 24 J. FIN. ECON. 137, 139 (1989). These authors reach their conclusion by analyzing target companies in successful takeovers in comparison with the ratio of the firm’s market value to its replacement value (Tobin’s Q). Id. at 140-41. It was assumed that high Q firms represent well-managed companies, while a low Q is indicative of a poorly managed firm. Id. at 145. It also is suggested that low Q firms typically suffer from management entrenchment. Randall Morck et al., Do Management Objectives Drive Bad Acquisitions?, 45 J. FIN. ECON. 31, 34 (1990).


245. See, e.g., SEC ADVISORY COMMITTEE ON TENDER OFFERS, supra note 231, at 34; see also Hazen, Persona, supra note 6, at 274 (“[B]ecause the leveraged financing boom made takeovers much easier, corporate raiders shifted their focus from poorly managed companies to companies with a sufficient cash flow to support the large financing costs.”).

One alternative explanation for the takeover activity of the 1980’s is that the ways in which corporate shares are valued have changed. See James LeBaron & Christopher J. Speidel, Why are the Parts Worth More than the Sum? “Chop Shop,” A Corporate Valuation Model, in THE MERGER BOOM 78, 80 (Lynn E. Browne & Eric S. Rosengran eds., 1987) (concluding that replacement cost of corporate assets is playing an increased role in the valuation process). Some commentators have pointed to external events as explaining the increase in takeovers during the 1980s. See, e.g., David J. Ravenscraft, The 1980s Merger Wave: An Industrial Organization Perspective, in THE MERGER BOOM, supra, at 17, 31-37 (pointing to deregulation and relaxation of the antitrust laws).

246. Jensen & Ruback, supra note 236, at 20-22. As pointed out by another article, the bidding firm’s shareholders often see their share values diminish. Michael Lubatkin, Value-Creating Mergers: Fact or Folklore?, 2 ACAD. MGMT. EXECUTIVE 295, 295 (1988).
This conclusion is based on the fact that as the pre-acquisi-
tion price rises, so must the takeover premium, thus causing the bidder
to pay more for the target company. Observers increasingly accept the
view that returns to shareholders of bidders are not terribly
impressive.  

Acquisitions that increase managerial benefits at the expense of re-
ducing the shareholder wealth of a bidder would not be permitted if
shareholders closely monitored managers' investment decisions.  

A philosophy of pursuing growth through acquisitions, therefore, may be
evidence of a strategy that seeks to assure the survival of the corporation
as an independent entity over the long term. Acquisitions, although
reducing short-term bidder wealth, may nevertheless help entrench bid-
der management. When poor performance threatens management job se-
curity, managers may decide to have the firm enter a new business,
hoping that they might be able to manage more successfully. In fact,
these acquisitions also may be part of a longer-term strategy that not
only benefits management, but benefits the acquiring firm as a whole.

Some authorities maintain that post-merger performance has been
disappointing, while others claim that bidder firms benefit signifi-
cantly. Most of the studies dealing with post-acquisition performance
have been based on relatively short-term data. Evidence in longer-
term studies suggests that post-acquisition firms are not able to maintain

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248. Michael Bradley et al., Synergistic Gains from Corporate Acquisitions and Their Division Between the Stockholders of Target and Acquiring Firms, 21 J. FIN. ECON. 3, 31 (1988); Roll, supra note 241, at 209-10.


252. Lubatkin, supra note 246, 298-99; see, e.g., Steven Kaplan, The Effects of Management Buyouts on Operating Performance and Value, 24 J. FIN. ECON. 217, 251 (1989); Frank R. Lichtenberg, Productivity Improvements from Changes in Ownership, Mergers & Acquisi-

pre-acquisition levels of profitability.\textsuperscript{254} These studies also conclude that a longer-term view of shareholder returns seriously questions those shorter-term studies that find value enhancement resulting from corporate acquisitions.\textsuperscript{255}

The anecdotal evidence is equally inconclusive. Consider, for example, the \textit{Business Week} cover story that listed its choices for the ten best and ten worst acquisitions of the decade.\textsuperscript{256} Drawing any conclusions from the twenty deals ranked in this list is difficult.\textsuperscript{257} Some industries appeared on both lists,\textsuperscript{258} which probably indicates that some combinations are value-enhancing while others are not. One of the combinations involved a target company that had previously been purchased and then spun off when the first acquisition was deemed unsuitable.\textsuperscript{259}

While generalizations can be made from the \textit{Business Week} list, it is important to realize that many transactions can be found that do not fall in line with these conclusions. Furthermore, these generalizations simply may be tautological with the benefit of hindsight.\textsuperscript{260} One lesson of the

\textsuperscript{254} Id. at 971.

\textsuperscript{255} Id. For other commentators questioning the long-term success of corporate acquisitions, see Gershon Mandelker, \textit{Risk and Return: The Case of Merging Firms}, 1 J. FIN. ECON. 303, 304 (1974).

On the other hand, some evidence suggests that productivity increases following an acquisition. Lichtenberg, supra note 252, at 48 (analyzing results in 19,000 plants).


\textsuperscript{257} The \textit{Business Week} cover story identified the following as the best deals of the decade: Dow Chemical/Merrill, Textize (1981, 1985; $517 million value); General Electric/RCA (1986; $6.1 billion); Grand Metropolitan/Heublein (1987; $1.1 billion); May Department Stores/Associated Dry Goods (1986; $2.4 billion); News Corp./Metromedia (1986; $2 billion); Quaker Oats/Stokely-Van Camp (1984; $220 million); Triangle Industries/National Can, American Can (1985, 1986; $1 billion); UAL/Pan American pacific routes (1986; $750 million); Unilever/Chesebrough-Ponds (1987; $3.1 billion); Wells Fargo/Crocker National (1986; $1.1 billion). The story identified the following as the worst deals of the eighties: Baldwin United/MGIC (1982; $1.2 billion); Beatrice Foods/Borden (1984; $2.7 billion); Blue Arrow/Manpower (1987; $1.3 billion); Campeau/Allied Stores, Federated Department Stores (1986, 1988; $10.1 billion); Fluor/St. Joe Minerals (1981; $2.3 billion); Honeywell/Sperry Aerospace (1986; $1 billion); LTV/Republic Steel (1984; $714 million); Pan American/National Airlines (1980; $374 million); Republican Bank/Interfirst (1987; $387 million); Sohio/Kennecott (1981; $1.8 billion). Id.

\textsuperscript{258} These twice-listed industries included airlines, food, retail stores, banks, and manufacturing. Id.

\textsuperscript{259} Perhaps ironically, Grand Metropolitan's acquisition of Heublein followed RJR's acquisition of Heublein and its subsequent disposition by RJR/Nabisco. Assuming the \textit{Business Week} value estimates are correct, the history of the Heublein deals tends to show that if the proper strategy is used, takeovers can be value-enhancing. Id. at 57.

\textsuperscript{260} The article identifies the following elements of the value-enhancing combinations that were absent in the others: "Have a strategic purpose, Know the business, Investigate thoroughly, Make realistic assumptions, Don't pay too much, Don't borrow too much, Integrate carefully and fast." Id. at 54.
twenty deals Business Week considered is that acquirors typically fare better when they acquire a business with which they are already familiar.\textsuperscript{261} This conclusion has garnered academic support\textsuperscript{262} and is certainly consistent with the now widely accepted wisdom that the conglomerate craze of the 1960s and 1970s was ill-conceived. Diminution in shareholder wealth as a result of diversifying acquisitions may be viewed as a cost to the shareholders of reducing managers' job loss risk.\textsuperscript{263} Academic support also exists for the implication that better managers make better acquirors.\textsuperscript{264}

Many of the combinations identified as "the worst" in the Business Week survey were highly leveraged and failed because of their inability to service the debt charge. On the other hand, many analysts argue that leveraging forces firms to rid themselves of unwanted assets and, therefore, become "lean and mean."\textsuperscript{265} Other commentators have identified bidder misinformation\textsuperscript{266} and bidder overpayment resulting from bidder management hubris as explanations for unsuccessful acquisitions.\textsuperscript{267} It further has been suggested that one result of bidder overpayment or poor post-acquisition performance is to make the firm more attractive as a target for firms that do not have a history of making bad acquisitions.\textsuperscript{268} The Business Week article is not alone in questioning the success of the takeover movement. Others have likewise suggested that "the track record of corporate strategies has been dismal . . . . Only the lawyers, investment bankers, and original sellers have prospered in most of these acquisitions, not the shareholders."\textsuperscript{269}

These observations are further evidence that concern for short-term maximization of shareholder wealth has led to transactions that are unproductive in the long run. The willingness to generate high control premiums has resulted in the sacrifice of long-term growth and success. It

\textsuperscript{261} Id.
\textsuperscript{262} See, e.g., Morck et al., supra note 243, at 42-43 (reporting findings based on a sample of 326 acquisitions from 1975 through 1987).
\textsuperscript{263} Yakov Amihud & Baruch Lev, Risk Reduction as a Managerial Motive for Conglomerate Mergers, 12 Bell J. Econ. 605, 606 (1981).
\textsuperscript{264} Lang et al., supra note 243, at 139; Morck et al., supra note 243, at 45.
\textsuperscript{265} See, e.g., Morck et al., supra note 243, at 47.
\textsuperscript{266} See id. at 39 (citing Paul Asquith et al., Merger Returns and the Form of Financing, (Harvard Business School Working Paper, 1987)).
\textsuperscript{267} Roll, supra note 241, at 212-14.
thus appears that the acquisition movement of the past two decades generally has not been a satisfactory substitute for long-term planning.

C. The Market for Corporate Control and Managers' Obligations

The structure of corporate America has changed rapidly during the past fifteen years. Hostile acquisitions, friendly takeovers, corporate restructurings, and management buyouts have contributed to the considerable realignment of American private industry. These realignments of corporate ownership necessarily affect various constituencies, including shareholders, employees, consumers, and creditors. Frequently, management must react to unexpected hostile takeovers—real or threatened. Corporate managers may believe that a hostile takeover attempt would sacrifice the long-term future of the company in favor of short-term profit maximization. Rather than permit a hostile bidder to buy the company and then split it up in order to finance the acquisition, management might well prefer to preserve the corporate culture and keep the company independent. Permitting managers to defend against takeovers allows them to preserve the status quo in hopes that the company can continue to pursue its long-term objectives. It also permits managers to keep their own jobs.

The courts and commentators have realized that, in defending against a hostile takeover, the interest of target company managers in preserving their own jobs may conflict with the best interests of the company. This realization has led many courts to invalidate defensive tactics unless they have an independent business purpose, such as defending the corporation from a perceived threat, and therefore can be upheld under a variation of the business judgment rule. The difficulty with a rule that permits management to defend against hostile bidders is that it may allow managers to entrench themselves rather than encourage them to act in the best interests of the company. Some commentators have suggested that managers should not be permitted to engage in any defensive tactics, claiming instead that shareholders should be permitted to make their own choices. This solution, however, goes too far. While prohibiting defensive tactics eliminates target managers' conflict of interest, it also...

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270. Other constituencies include suppliers and the communities where a company's major operations are located.

271. See, e.g., Moran v. Household Int'l, Inc., 500 A.2d 1346, 1356 (Del. 1985) (upholding poison pill rights plan); Unocal Corp. v. Mesa Petroleum Co., 493 A.2d 946, 955 (Del. 1985) (upholding target management's use of exclusionary tender offer to purchase its own stock, not including the shares owned by the hostile bidder); Cheff v. Mathes, 41 Del. Ch. 494, 499, 199 A.2d 548, 554 (1964) (upholding "greenmail" transaction wherein target company funds were used to repurchase shares held by hostile bidder).

272. See Gilson, supra note 226, at 52. A variation on this proposal was adopted by the
prohibits managers from doing their job—making decisions in the corporation's best interest. Because of this conflict, the courts and many state legislatures have continued to permit managers to act in the company's best interest while scrutinizing defensive tactics in an attempt to prevent corporate managers from unduly favoring their self-interest. Such a balanced approach permits managers to focus on their company's long-term interests while providing some protection against managers' acts of self-interest. The following section examines this approach in more detail.

D. State Corporate Law and the Short-Term Versus Long-Term Debate

Although no longer fashionable in many circles, including some state legislatures, the general rule remains that corporate managers owe a fiduciary duty to their corporation and to the shareholders. The validity of protecting shareholder ownership rights has been challenged by some commentators who view the corporation as merely a contractual nexus of various constituencies which control the firm through the contracting process. These observers assert that it is not meaningful to talk in terms of shareholder ownership. But this simply is not a satisfactory conclu-


273. For a listing of representative state statutes, see infra note 301.

274. As explained by one commentator:

In this model, the firm is a "nexus of contracts" or a marketplace where various constituencies contract for their own protection. The entrepreneurial concept of the firm is rejected. Ownership of the firm disappears as a meaningful concept under this model because no one can own a "nexus". Shareholders are merely parties to one contract that comprises the firm. Moreover, control of the firm is shared among various constituencies. Control is reflected in the terms of various contracts entered into by individuals. According to this model, it makes little sense to focus upon shareholders' "ownership" and control when various constituencies share control. It also makes little sense to speak of "corporate" social responsibility because the firm is only a "nexus." Various constituencies can obtain the protection they need by bargaining for contract terms.

sion in light of traditional norms of corporate governance.

The tension between maximizing shareholder wealth and protecting non-shareholder constituencies shifted in favor of the former in a 1986 Delaware case. In Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., the Delaware Supreme Court narrowed the availability of the business judgment rule. This watershed ruling held that unless management has decided to try to keep the company independent, management’s sole obligation when faced with an offer is to maximize shareholder profits. The Revlon court reasoned that once a company’s management has decided that the business is for sale, the directors’ focus must shift from the best interests of the corporation to the best short-term investment interests of the shareholders. Presumably, the court in Revlon decided that once target company management has decided that it no longer can keep the company independent, it no longer has any say in the future of the business. Therefore, target management’s role is reduced to that of mere auctioneer obtaining the highest possible price for the shareholders who then can decide for themselves whether to accept the offer. The problem with such a result is that it clearly favors the short-term interests of shareholders over the interests of others in the

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275. Professor Eisenberg contends that “managing the corporation in the interest of the shareholders is socially desirable, in that their interest coincides with the social interest in efficiency.” Melvin A. Eisenberg, Corporate Legitimacy, Conduct, and Governance—Two Models of the Corporation, 17 CREIGHTON L. REV. 1, 5 (1983). Professor Bebchuck suggests that corporate law treats the public corporation as if all of the shares were held by a single owner. Lucian A. Bebchuck, Toward Undistorted Choice and Equal Treatment in Corporate Takeovers, 98 HARV. L. REV. 1693, 1700-06 (1985).


277. Id. at 182 (striking down “lock-up” option whereby target manager agreed to sell corporate assets to a “white knight” in order to rebuff a hostile bidder); see, e.g., Ronald J. Gilson & Reinier Kraakman, What Triggers Revlon?, 25 WAKE FOREST L. REV. 37, 45 (1990).

278. Revlon, 506 A.2d at 182.
corporate community. While forcing target management to take a hands-off approach may be appropriate in some takeover battles, it may not be proper when the long-term interests of other constituencies conflict with short-term maximization of shareholder wealth.

The following example demonstrates the problem with interpreting the Revlon ruling as an absolute proposition. Assume that management has been negotiating a friendly corporate combination under which it is believed the company will merge into a larger enterprise, and the target company's shareholders will receive the surviving company's shares, thereby continuing to receive proceeds of the enterprise. Assume further that, under the terms of the merger, the shareholders would enjoy the benefits of the synergism resulting from the combination of the target company's assets with those of the surviving enterprise. Finally, assume that the planned merger would provide the target shareholders with stock in the new company worth $50 per share. But, prior to the signing of the merger agreement by the directors of the respective companies, a South American dictator decides to invest his illegal drug profits in the target company and thereby offers $65 cash per share. This proves to be the highest offer. Under a strict application of the Revlon rule, target management can do nothing to interfere with the shareholders' receiving the highest price for their shares, notwithstanding the fact that they may well choose to sell to the dictator, an outcome clearly repugnant to the interests of all non-shareholder constituencies. Target managers can act only if the company is not for sale.

In subsequent decisions the Delaware Supreme Court explained that the auction duty is not absolute and only comes into play when the company is for sale. In a case involving the proposed merger of Warner Communications and Time, Inc., the court wrote:

[A]bsent a limited set of circumstances as defined under Revlon, a board of directors while always required to act in an informed manner, is not under any per se duty to maximize shareholder value in the short term, even in the context of a takeover. In our view, the pivotal question presented by this case is: "Did Time, by entering into the proposed merger with Warner, put itself up for sale?"

If the corporation is not for sale, then target company managers may


280. Paramount Communications, Inc. v. Time, Inc., 571 A.2d 1140, 1150 (Del. 1990). The court went on to observe in a footnote: "[W]e endorse the Chancellor's conclusion that it is not a breach of faith for directors to determine that the present stock market price of shares is not representative of true value or that there may indeed be several market values for any
invoke the business judgment rule to implement defensive measures as long as the directors are able to prove: (1) that a reasonable basis existed for perceiving a threat to corporate policy and effectiveness; and (2) that the defensive measures adopted were reasonable in relation to the threat so posed.\textsuperscript{281}

Legislation in many other states has given directors more leeway in fending off takeover attempts\textsuperscript{282} and reflects the desire of these legislatures to preserve jobs and economic growth within their respective states. This type of legislation indicates the recognition that some corporate constituencies have interests other than the shareholders' ownership interest. The dichotomy between the Delaware case law and legislation in other jurisdictions is based on the question of whether management's only obligation is to maximize shareholder wealth.

Another recent transaction that raised questions of what constitutes an appropriate management paradigm can be found in the background of Time's acquisition of Warner Communications.\textsuperscript{283} Warner approached Time with a merger proposal. Time management appeared receptive to the proposal, but Paramount Communications intervened by offering $200 per share for the Time stock—a price far in excess of the estimated value of the proposed Warner/Time merger share exchange. As noted earlier, Delaware law requires managers to seek the highest price for the company if it is for sale.\textsuperscript{284} Accordingly, Time management appeared bound to accept the Paramount offer or, alternatively, to seek a higher offer. Time, however, responded by making a cash offer for Warner. Since Time had decided to remain independent (albeit a completely different company after the Warner acquisition), it was free to embark on the acquisition even though, as a result, the short-term goal of share-

\textsuperscript{281} Unocal Corp. v. Mesa Petroleum Co., 493 A.2d 946, 955 (Del. 1985) (upholding target management's use of exclusionary tender offer to purchase its own stock, excluding the shares owned by the hostile bidder); see, e.g., Mills Acquisition Co. v. Macmillan, 599 A.2d 1261, 1285 n.35 (Del. 1989). The court in \textit{Time} reaffirmed this test and explained that the directors could satisfy the first prong of the \textit{Unocal} test by "demonstrating good faith and reasonable investigation." \textit{Time}, 571 A.2d at 1152.


\textsuperscript{283} See \textit{Time}, 571 A.2d at 1149-55.

\textsuperscript{284} Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc., 506 A.2d 173, 181 (Del. 1986); \textit{see supra} text accompanying notes 276-78.
holder profit maximization was sacrificed.285

How could management justify the Warner acquisition when it resulted in a company valued approximately thirty percent below the two-hundred dollar per share price offered by Paramount? One explanation is that, in the long term, Time shareholders would fare better by holding on to their Time/Warner stock than by selling their shares to Paramount. Implicit in this argument is that short-term profits should take second chair to the long-term goals. If this argument were valid, why then did the efficient market not fairly value the Time/Warner shares? One commentator has suggested that this discrepancy represents the difference between the value of the stock as a relatively short-term investment, that is, as defined by market forces and investment objectives, and the value of the stock in the market for corporate control.286

Professors Adolph Berle and Gardiner Means long ago established a paradigm of corporate governance based upon shareholder supremacy.287 Clearly, from the perspective of the Time shareholders' short-term investment objectives, the Paramount offer was in their best interest. Does this mean that under the Berle and Means paradigm, Time management had an obligation to accept the Paramount offer or at least not to interfere with it? Perhaps. The Berle and Means model, however, was premised on shareholder supremacy and does not take into account the other corporate constituencies.288 Considering the interests of these other constituencies is not only consistent with, but necessary for the long-term health of the corporation.289

The Paramount offer and business combination that would have fol-

285. *Time*, 571 A.2d at 1151. Once it became apparent that the Time/Warner deal was a favorite to succeed, the Time stock dropped, trading a little above $140 per share. This amounted to a price 30% below what shareholders would have realized under the Paramount offer.


289. One of the various anti-takeover responses taken by state legislatures has been to permit, but not mandate, directors to take account of interests other than those of the shareholders. These statutes are frequently referred to as “stakeholder” statutes. *See infra* note 301 and accompanying text.
lowed were not necessarily best for other Time constituencies, such as employees and consumers. Is it necessarily true that short-term maximization of shareholder wealth is in the public interest? When a by-product is the sacrifice of long-term concerns and the interests of other constituencies, this writer submits that it is not.

The Delaware courts agreed with Time management’s right to determine the company’s future. The Delaware Chancery Court emphasized the fact that the new post-acquisition entity would preserve Time’s corporate culture and that Time management was properly focusing upon the company’s long-term health. The Warner acquisition properly was viewed as a publishing company’s desire to expand its presence in the entertainment industry. The Time-Warner combination was therefore seen as consistent with Time’s long-term plans. Conversely, the acquisition of Time by Paramount would have meant an end to Time and therefore would have sacrificed the long-term health of the company (as perceived by incumbent Time management) for the short-term maximization of shareholder wealth.

The Chancellor in Time recognized the dangers of focusing on the short term. The Delaware Supreme Court did not agree, however, and characterized the Chancellor’s “undue emphasis upon long-term versus short-term corporate strategy” as “unwise.” The court explained:

Two key predicates underpin our analysis. First, Delaware law imposes on a board of directors the duty to manage the business and affairs of the corporation. This broad mandate includes a conferred authority to set a corporate course of action, including time frame, designed to enhance corporate profitability. Thus, the question of “long-term” versus “short-term” values is largely irrelevant because directors, generally, are obliged to chart a course for a corporation which is in its best interests without regard to a fixed investment horizon.

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290. See Eisenberg, supra note 275, at 5 (contending that the shareholders’ interests generally coincide with efficiency). It has been suggested that equating shareholder wealth maximization with the proper outcome is based on a “crude sort of utilitarianism.” Stone, supra note 228, at 570.

291. Previously, Time had entered the entertainment industry, as evidenced by its earlier acquisition of HBO cable television.


293. Time, 571 A.2d at 1150 (citation omitted). Courts rarely have been willing to second-guess the board of directors’ balancing of long-term growth against shareholder wealth maximization. Compare Dodge v. Ford Motor Co., 204 Mich. 459, 509-10, 170 N.W. 668, 685 (1919) (compelling dividend where corporation had surplus of capital) with Sinclair Oil Corp. v. Levien, 280 A.2d 717, 722 (Del. 1971) (holding that parent corporation’s decision to pay
The court nevertheless upheld the Chancellor's decision because otherwise the court would be "substituting its judgment as to what is a 'better' deal for that of a corporation's board of directors." Other courts similarly have indicated that management has the right to favor long-term corporate interests over short-term shareholder wealth maximization. The directors nevertheless may go too far, in which case a court would be willing to second-guess their judgment.

Obviously, state legislatures and courts differ in the approaches used to balance the interests of shareholders with the often conflicting interests of other stakeholders. To the extent that states limit manager autonomy in an effort to enhance shareholder rights, however, they may inadvertently contribute to current overemphasis on near-term performance by corporate managements. The relationship between these two issues is fairly straightforward: managers want to preserve their jobs; takeovers threaten managers' jobs; state laws favoring shareholder rights and limiting management autonomy raise the probability that a takeover will succeed; therefore, managers of corporations subject to such laws will react by focusing on the company's near-term performance in order to keep the stock price high and thereby discourage any corporate raider from eyeing his company as a possible target. Some managements may decide that the best way to resist a corporate raider is by engineering their own "takeover."

high dividends rather than expand business was not self dealing and thus was protected by business judgment rule) and Davis v. Louisville Gas & Electric Co., 142 A. 654, 660 (Del. Ch. 1928) (dismissing challenge to decision to increase dividends rather than expand operations).

294. Time, 571 A.2d at 1153.

295. See, e.g., TW Services, Inc. v. SWT Acquisition Corp., [1989 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 94,362, at 92,174 (Del. Ch. Mar. 2, 1989) (directors are not required to "divert from [a] long term business plan in order to facilitate or propose an extraordinary transaction designed to maximize current share value"); Hahn v. Carter-Wallace, Inc., No. 9097 (Del. Ch. Oct. 9, 1987) (LEXIS, States library, Del. file) ("While reasonable men may disagree as to whether long-term growth objectives should prevail over short-term profit considerations, the decision to pursue a long range objective is a business decision subject to a presumption of propriety under the business judgement rule.").

296. See, e.g., Air Line Pilots Ass'n v. UAL Corp., 717 F. Supp. 575, 586-87 (N.D. Ill. 1989) (applying the Unocal test to strike down collective bargaining agreement designed to prevent takeover). On rare occasions courts have interfered in other contexts. For example, in the classic (if not aberrational) case of Dodge v. Ford Motor Corp., 204 Mich. 459, 170 N.W. 668 (1919), the court ordered the declaration of a dividend notwithstanding management's claim that the accumulation of cash was necessary to facilitate planned expansion. The court found no supportable basis for retaining idle cash notwithstanding its observation that "[i]t is recognized that plans must often be made for a long future, for expected competition, for a continuing as well as an immediately profitable venture." Id. at 508, 170 N.W. at 684.
Management buyouts provide a special case when analyzing the role of the short-term/long-term dichotomy. When management decides to enter the market for corporate control, its willingness to take the company private is unlikely to be motivated by the conviction that they themselves have been running the company inefficiently. A more likely explanation is that in proposing a management buyout, management is saying that the market is undervaluing its efficiency. The fact that managers are willing to take the company private indicates their conclusion that the price of the stock is undervalued even when inflated by the premium that will have to be paid to take the company private.297

How do management buyouts relate to the traditional fiduciary model, which says that management holds its power in trust for the corporation’s true owners—the shareholders? One can argue that in a management buyout, the managers are appropriating for themselves the future profitability of the company that properly belongs to the shareholders. Of course, this is not a proper justification. If true, it would clearly constitute a breach of management’s fiduciary duty. It seems clear, however, that management buyouts are proper transactions so long as management pays a fair price for the shares.298 Furthermore, to the extent that the market is undervaluing the company’s shares, a management buyout is one device through which managers arguably can fulfill their fiduciary obligations by maximizing shareholder wealth. The correctness of this position depends upon the legitimacy of trading long-term prospects for short-term gain.

A common trait of the vast majority of management buyouts in recent years has been the use of highly leveraged financing. As a result, the company is transformed from a firm with equity-based ownership to one of debt-based ownership. Aside from high debt levels and the consequential increase in investment risk, these companies generally have a totally different composition after restructuring. Management buyouts, like most highly leveraged corporate transactions involving fundamental organic change, frequently result in asset sales, plant closings, and em-

297. While managers might in good faith believe that they are acting out of their duty to maximize shareholder profits, they themselves are economic persons. Accordingly, it is fair to assume that their willingness to put their own funds at risk has at least a subsidiary profit motive.

298. The problem, of course, arises in trying to determine what is a fair price. Cf. Smith v. Van Gorkom, 488 A.2d 858, 878-80 (Del. 1985) (shareholder suit alleging that the board of directors failed to reach an informed business judgment in accepting a merger proposal); Weinberger v. UOP, Inc., 457 A.2d 701, 712-15 (Del. 1983) (shareholder suit alleging that the share price accepted by the board of directors was unfair).
ployee layoffs. Such moves are viewed as necessary to make the company more efficient so that it can meet its higher debt payments. These changes in turn create a different corporate culture than was present in the former publicly held firm. The vast increase in debt loads that accompany the typical management buyout means that the new owners, the former management, must place primary focus on meeting debt payments. A likely result of this burden is that the owners will gear their planning efforts to maximizing short-term earnings at the expense of longer-term considerations.

F. Considering Other Constituencies

State legislatures have taken various responses to permit corporate managers to fend off hostile takeover attempts. One type of statute permits but does not require directors to take into account interests other than the shareholders when making corporate decisions. These statutes are referred to as “stakeholder” statutes because they recognize that constituencies within the corporate community other than shareholders have a stake in corporate affairs.

299. These changes in the corporate structure, business, and culture may create an environment in which existing shareholders may not want to continue to participate. The fact that a number of shareholders may want to have their interests redeemed, however, is not in itself a justification for forcing out all public shareholders. The shareholders' desire to exit can be accommodated by providing them with a choice of whether to participate in the highly leveraged restructured company.

Mandating that the shareholders be given such an opportunity would be consistent with the equal treatment principle. See, e.g., William D. Andrews, The Stockholder's Right to Equal Opportunity in the Sale of Shares, 78 Harv. L. Rev. 505, 505 (1965); Hazen, supra note 233, at 1060-67. The equal opportunity analogy is appropriate in the case of management buyouts because managers generally own some stake in the company prior to the restructuring and as controlling managers, they are giving themselves an opportunity that is not available to the public, non-management shareholders. In other contexts, controlling shareholders' attempts to appropriate such an opportunity for themselves have been held to be in breach of their fiduciary duty to the other shareholders. See, e.g., Jones v. H.F. Ahmanson & Co., 1 Cal. 3d 93, 117-18, 460 P.2d 464, 478, 81 Cal. Rptr. 592, 606 (1969) (holders of 85% of the company's stock set up a holding company for their shares, followed by a public offering of the holding company stock with the holders of the remaining 15% unable to participate in the gains realized as a result of this public offering). By analogy, a management buyout can be viewed as a reverse situation, wherein corporate managers appropriate for themselves the fruits of a going-private transaction while forcing out the public shareholders (albeit at a price substantially in excess of the preexisting discounted market price).

300. See 1 Hazen, supra note 68, § 11.21.

Several years ago, former SEC Chairman Shad, in his "Leveraging of America" speech,\textsuperscript{302} addressed the impact that leveraged buyouts would have on this nation's economy. Among other things, he suggested that as assets were sold off in order to satisfy debt payments many businesses would be forced to close, causing widespread job loss. While a number of firms that have undergone leveraged buyouts or restructuring have succumbed to such a fate, a majority have not, at least to date.

Corporate break-ups and dispersion of corporate assets may not always be a negative economic or social phenomenon but may simply reveal that the conglomerate craze of the 1970s was based on misplaced assumptions about economies of scale in highly diversified companies.\textsuperscript{303} Jobs have been lost and communities damaged, however, in the wake of a hostile takeover or leveraged buyout; many commentators have viewed these consequences as negative outgrowths of those takeovers.\textsuperscript{304}

\section*{VI. Conclusion}

Effective corporate management requires maintaining a proper balance between short-term and long-term goals. Absent a conflict of interest, managers should have discretion to use their business judgment in formulating corporate policy. The current investment climate, however, focuses on short-term events. The proliferation of derivative investments and the advent of computerized trading strategies have magnified this focus. Market regulators have been concerned with the extent to which new investments and new investment strategies affect stock market volatility. Yet, they have not paid adequate attention to the extent to which

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\textsuperscript{303} Deborah A. De Mott, Directors' Duties in Management Buyouts and Leveraged Recapitalizations, 49 OHIO ST. L.J. 517, 536 (1988) (noting that it may not be "entirely coincidental that the present era of extensive corporate restructurings and asset sales follow an era of extensive conglomerate acquisition").

the markets are creating additional pressure for both investors and corporate managers to focus on the short term.

By necessity, corporate managers must be attuned to the pricing of their company's securities. Price is significant, not only because of the market for corporate control, but also because the marketability and pricing of a company's stock affects its ability to raise additional capital. Accordingly, corporate managers must be responsive to the short-term dictates of the investment markets. Unfortunately, this combination of forces has led to what many decry as an inappropriate focus for American business. The current trends in corporate law have been consistent with corporate managers' focus on short-term wealth maximization as opposed to the long-term health of their companies.

Most current proposals for regulatory reform of market activity have been geared to curbing problems of excess volatility. Market regulators have focused on day-to-day performance rather than upon the long-term effects of current investment strategy and market regulation. The time has come for regulators to consider not only the impact of the proliferation of derivative investments upon market performance, but also the extent to which market performance diverts the eyes of corporate managers from appropriate paths. Any astute observer would respond that the role of the SEC is investor protection, not policing corporate management. Furthermore, corporate management norms traditionally have been a question of state law, despite numerous proposals over time that there be a federal law of corporations. Nevertheless, to the extent that the markets skew share values, investor protection becomes a legitimate concern. The number of investors whipsawed in excessively volatile markets cannot be disregarded. Similarly, investors who do not have the capital to engage in computerized trading and other types of risk arbitrage cannot compete fairly in a market driven by such trading strategies. Accordingly, excess volatility and its effects on share prices are relevant regulatory concerns. To the extent that corporate takeovers contribute to market volatility, it is a legitimate federal concern to limit takeover and defensive tactics that interfere with market integrity.

The current regulatory focus has been based on the assumption that continued proliferation of derivative instruments increases market efficiency and, therefore, market integrity. Mounting evidence indicates, to the contrary, that derivative investments and new trading strategies contribute to excessive volatility in the stock and other financial markets. Unfortunately, the regulators seem to be more concerned with their turf battle. The SEC and CFTC have been struggling over who will regulate stock index and other financial futures. One unfortunate by-product of
this turf battle is that the two agencies have not built up the sense of common purpose and cooperation necessary to develop a meaningful regulatory policy.

Regulators currently concentrate on the prevention of fraud and manipulation. Their oversight of the markets has been laissez-faire, the underlying assumption of both the CFTC and the SEC being that more is better with regard to the variety of derivative investment vehicles. This proliferation of derivative investments may be as much a result of the turf battle between the two agencies, their constituent exchanges, and the legislative committees responsible for each agency as it is a reflection of well-conceived regulatory policies grounded upon sound economic theory. This Article has suggested that regulatory policy focus not so much on who should regulate various financial investments, but rather on whether the current laissez-faire regulatory philosophy is the appropriate stance. The evidence suggests that it is not. Regulators, therefore, should seriously consider limiting derivative investments and trading strategies with a view towards restoring some stability in the financial markets.

Market regulation has a significant impact on corporate managerial decisionmaking. Federal regulatory policy generally does not concern itself with corporate managerial norms because this area traditionally has been reserved for state corporate law. Many corporate law developments have had the unfortunate effect of further encouraging managers to focus on the short term. Since the inception of corporate law, a continuous struggle has been waged between management autonomy and shareholder rights. At least in the context of corporate takeovers, the law seems to be shifting too far in favor of shareholder-wealth maximization. Management discretion should not go unchecked, especially in the context of control battles where the desire for self-preservation may taint managers' objectivity. Fiduciary principles were imported into corporate law because of the wide variety of constituencies present. While some constituencies may benefit from short-term wealth maximization, others will not. Legislators, judges, and policy makers should think twice before unduly negating the role of corporate managers' fiduciary obligations.