

TAKING DISCOUNTS SERIOUSLY:
The Implications of
'Discounted' Share Prices
As An Acquisition Motive*

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If the Acme Oil Company has 100,000 shares of stock trading at \$10 per share, no debt, and a proven oil well as its only asset, how much should an identical firm pay to acquire Acme? Businessmen might fail the quiz, but finance students would probably answer: "Not more than \$1,000,000 ($\$10 \times 100,000$), excluding synergy gains or tax savings."¹

This answer echoes a common presumption in the finance literature that informed securities prices credibly estimate the underlying value of corporate assets. Firms whose share prices fall below the market value of their assets -- for example, many closed-investment funds, holding companies, or natural resource firms -- are frequently tagged as anomalies on the force of this view.² But these "anomalous" firms happen to be the only firms whose asset values are readily visible. Here, then, is the rub: The direct evidence, as far as it goes, is more consistent with the conjecture that securities prices often "discount" -- or underprice -- expected cash flows from corporate assets than with the standard presumption that share prices fully value these assets.

1. See J. Van Horne, *Financial Management and Policy* 260 (7th ed. 1986) (discussing acquisition gains).

2. See *infra* Part II (reviewing "anomalous" firms). Of course, discrepancies between share prices and asset values would remain anomalous in a world of perfect capital markets, no matter how pervasive they were in actual markets.

If discounts are widespread, however, they may have significant consequences for many areas of corporate behavior including, above all, acquisitions behavior and the takeover market.

As the Acme hypothetical suggests, the standard presumption that share prices fully value corporate assets carries a basic implication for acquisition premia. If share prices already reflect the value of targets' assets, then takeover premia, which now average over 50% of pre-bid share prices, must reflect something else of value that bidders bring to acquisitions: for example, better management or synergy gains. An astute acquirer would never pay \$1,500,000 for Acme's shares unless it could earn at least \$500,000, on a present value basis, more than what Acme already expected to earn. By contrast, on the view that share prices may discount asset values, takeover premia have an alternative source in the existing value of targets' assets. Acme's acquirer might pay \$1,500,000 simply because Acme's oil well was reliably appraised at, say, \$1,700,000. In this case, the "premium" received by Acme's shareholders might be more accurately described as a "recaptured" discount.

The discount claim conforms to an intuition, deeply rooted in corporate law and business practice, that share

prices often diverge from asset values.³ I will argue that this intuition is plausible for important classes of acquisitions. Nevertheless, the discount claim is an incomplete account of acquisition gains absent an explanation of how share discounts arise in the first instance. Here, at least two familiar but divergent hypotheses are possible. One -- the "misinvestment" hypothesis -- holds that investors rationally expect managers of target firms to misinvest the future returns on corporate assets, and discount the value of these assets accordingly. The second hypothesis -- the "market" hypothesis -- asserts that share prices themselves may be noisy or skewed. On this view, market prices simply fail to reflect informed estimates of likely cash flows generated by target firms. Both discount hypotheses predict similar acquisition behavior and carry similar implications for other corporate behavior as well, including the influence of financial policy on share prices. Nevertheless, the distinction between these hypotheses is crucial, since the choice of a discount hypothesis will govern the regulatory implications of the discount claim.

3. See, e.g., *Smith v. Van Gorkom*, 488 A.2d 858, 875-76 (Del. 1985) (even large premia over market price may undervalue corporate assets). A basic feature of the share contract is a redemption or appraisal right, triggered by fundamental corporate changes, against the going concern value of the firms. See, e.g., *Rosenblatt v. Getty Oil Co.*, 493 A.2d 929, 930 (Del. 1985).

This Article seeks to establish the plausibility of the discount claim and assess its implications for the behavior and regulation of the acquisitions market. Part I contrasts traditional and discount hypotheses as accounts of acquisition activity. Part II presents the case for taking discounts seriously by examining their existence for specialized firms and demonstrating their congruence with much recent acquisition behavior. Part III demonstrates how discounts might survive in a competitive takeover market, even though eliminating discounts on potential takeover targets would profit both hostile acquirers and target shareholders. Part IV examines how, despite the relatively stability of discounts, they can nonetheless trigger takeovers in conjunction with other sources of acquisition gains or as a result of managerial inattention to rising discount levels. Finally, Part V sketches the divergent implications of the misinvestment and market explanations of discounts for the regulation of hostile takeovers: Acquisitions that are ultimately explained by noisy security prices may impose social costs, while explanations that arise from rational skepticism about managers' investment policies create real social gains.

I. AN OVERVIEW OF ACQUISITION GAINS

Three possibilities might occur to an observer who first learned that acquirers pay large premia over share price for the assets of target firms: 1) acquirers may be discovering more valuable uses for target assets; 2) share prices may "underprice" these assets; or, finally, 3) acquirers may simply be paying too much. These same possibilities point to a useful typology of current explanations of acquisition gains. A broad class of "traditional" hypotheses presumes that acquirers can create or claim new value to pay for acquisition premia. These explanations accord with the assumption that informed share prices fully reflect asset values, and they include all accounts in which acquirers might expect to increase the net cash flows of targets by, for example, improving management or redeploying assets. A second class of "discount" hypotheses asserts that while acquirers' bid prices reflect real private gains, these gains result because share prices discount the underlying value of target assets. Finally, a third and more troubling class of "overbidding" hypotheses questions whether bid prices and takeover premia reflect real opportunities for acquisition gains at all. Under these theories, managers of acquiring firms misperceive or mis-

value targets out of "hubris",⁴ or they may pursue distinctly managerial interests such as corporate growth at great cost to shareholder interests.⁵

The extent to which this third class of acquisition hypotheses might explain takeover premia remains a difficult issue. Nevertheless, a prosperous acquisitions market and a large empirical literature both suggest that most acquisitions do generate private gains, at least as measured by their impact on share prices. Target shareholders earn large returns in the form of premia, while shareholders of acquiring firms do not seem to suffer losses and may also register gains.⁶ Since a primary role for private gains in

4. Roll, The Hubris Hypothesis of Corporate Takeovers, 59 J. Bus. 197 (1986).

5. See, e.g., O. Williamson, The Economics of Discretionary Behavior: Managerial Objectives in a Theory of the Firm, 1964.

6. See Jarrell, Brickley & Netter, The Market for Corporate Control: The Empirical Evidence Since 1980, 2 J. Econ. Perspectives 49, 53 (1988); Jensen & Ruback, The Market for Corporate Control: The Scientific Evidence, 11 J. Fin. Econ. 5, 9-22 (1983). Recent studies provide additional evidence of aggregate gains from mergers and takeovers. See, e.g., Dennis & McConnell, Corporate Mergers and Securities Returns, 16 J. Fin. Econ. 143 (1986); Malesta & Thompson, Partially Anticipated Events, 14 J. Fin. Econ. 237 (1985). Basic ambiguities in the interpretation of these market studies, however, leave the issue of aggregate gains far from closed. See, e.g., Magenheimer & Mueller, Are Acquiring-Firm Shareholders Better Off After an Acquisition than They Were Before?, in Knights, Raiders, and Targets: The Impact of the Hostile Takeover 172 (J. Coffee, L. Lowenstein, & S. Rose-Ackerman eds. 1988); Roll, Empirical Evidence on Takeover Activity and Shareholder Wealth, in Knights, Raiders, and Targets, supra, at 241.

motivating takeovers seems likely, inquiry must turn to the traditional and discount hypotheses. The question thus becomes: What mix of opportunities can explain these gains and, in particular, the size of acquisition premia?

A. Traditional Gains Hypotheses

Most traditional accounts of motives and gains in the acquisitions literature favor active and resourceful acquirers who seek to increase cash flows from target assets through the redeployment or better management of these assets. The reorganization of assets can lead to synergy benefits, while new management may slash operating costs and increase returns in a variety of ways.⁷ In either case, ac-

7. For overviews of acquisition hypotheses, see Jarrell, Brickley & Netter, *supra* note 6, at 54-58; Roll, *supra* note 6; and Jensen & Ruback, *supra* note xx, at 22-33. The specialized literature on acquisition gains is large. The synergy hypothesis, including gains from vertical integration and economies of scale, is the most strongly supported traditional account. See, e.g., Roll, *supra*, 245-46; Bradley, Desai, & Kim, *The Rationale Behind Interfirm Tender Offers: Information or Synergy?*, 11 J. Fin. Econ. 183 (1983); McConnell & Nantell, *Corporate Combinations and Common Stock Returns: The Case of Joint Ventures*, 40 J. Fin. 519 (1985) (extrapolating from joint ventures to merger gains). However, the case for pure "financial synergies", including diversification and co-insurance gains in conglomerate mergers, is not persuasive. See Amihud & Lev, *Risk Reduction as a Managerial Motive for Conglomerate Mergers*, 12 Bell J. Econ. 605 (1981).

quisitions create both private gains for the participating parties and net social gains. In addition, there are less prominent, if no less traditional, accounts of how acquisitions might create private gains by imposing costs on third parties: for example, by exploiting monopoly power,⁸ or by breaching "implicit contracts" between target shareholders and creditors, employees, or incumbent managers.⁹

8. Indirect evidence strongly suggests that market power is not an important acquisition motive. See Eckbo, Horizontal Mergers, Collusion, and Stockholder Wealth, 11 J. Fin. Econ. 241 (1983).

9. Among the most provocative revisionist accounts of private gains in takeovers are implicit contract theories that locate private gains in the redistribution of surplus from non-shareholder factors of target firms to acquiring firms. Thus, several commentators portray takeovers as a species of shareholder opportunism vis-a-vis incumbent managers. E.g., Knoeber, Golden Parachutes, Shark Repellents and Hostile Tender Offers, 76 Am. Econ. Rev. 155, 159-61 (1986); Coffee, Shareholders Versus Managers: Strains in the Corporate Web, 85 Mich. L. Rev. 1, 24 (1986). This view suggests that acquirers profit in part by breaching implicit agreements to pay incumbent managers deferred compensation or to provide other perquisites. Schleifer and Summers generalize the implicit contract perspective to other major corporate factors including employees and creditors. A. Schleifer & L. Summers, Hostile Takeovers as Breaches of Trust (NBER Working Paper No. 2342, 1987). The implicit contract perspective obscures the consequences of seemingly straightforward changes in management policy. Lower labor or management costs no longer reflect obvious efficiencies on this view; they may also be simple breaches of implicit agreements. Thus, implicit contract theories inject an element of normative uncertainty into the analysis of operational gains that parallels the uncertain interpretation of share discounts.

Two further accounts of acquisition gains straddle the line between traditional and discount hypotheses. One of these is a "private information" theory, which assumes that the market may be uninformed about the real value of target assets. In this case, acquirers who privately learn key information can exploit true discrepancies between share prices and asset values. The possibility of such information is a traditional caveat to the identification of share prices and asset values. Yet, its practical significance seems largely limited to friendly transactions. Short of hiring informers, hostile acquirers lack access to inside information about targets. In addition, evidence that unsuccessful bids fail to increase the share prices of target firms over the longrun also suggests that hostile bids do not release key inside information.¹⁰

The second of these hypotheses concerns the import of tax savings for acquisition premia. The tax hypothesis can

10. See Bradley, Desai, & Kim, *supra* note 7 (share prices of targets fall to pre-offer levels within five years after unsuccessful bids). Share prices would presumably remain at post-bid levels if the market believed that hostile bids were based on inside information. For more recent studies replicating the Bradley, Desai, & Kim result, see Jarrell, *The Wealth Effects of Litigation by Targets: Do Interests Diverge in a Merge?*, 28 J. L. & Econ. 151 (1985); R. Ruback, *Do Target Shareholders Lose in Unsuccessful Control Contests*, in *The Economic Effects of Mergers and Acquisitions* (A. Auerbach ed. forthcoming 1988).

be either a traditional or a discount hypothesis depending on the nature of the asserted tax gain. In most instances, it is a traditional hypothesis that turns on corporate-level tax savings. Acquirers are said to garner significant tax gains by stepping up the basis on target assets, transferring valuable operating loss carryovers ("NOLs"), or increasing their interest deductions by borrowing against target assets.¹¹ These forms of the tax hypothesis resemble accounts of creating gains through better management, although here tax management is at issue and the savings are private gains made at the expense of the Treasury.¹² Recent studies suggest that each of these corporate-level tax gains has played some role in acquisitions and, more importantly, in management buyouts.¹³ Yet, apart from leveraged buyouts,

11. See, e.g., R. Gilson, M. Scholes, & M. Wolfson, *Taxation and the Dynamics of Corporate Control: The Uncertain Case for Tax Motivated Acquisitions*, Stanford Law School Law & Econ. Program, Working Paper No. 24 (Jan. 1986); A. Auerbach & D. Reishus, *The Effects of Taxation on the Merger Decision* (National Bureau of Economic Research Working Paper No. 2192, Mar. 1987).

12. This point is made most forcefully by considering that alternative transactions would permit target managers to realize most tax gains for shareholders that are ordinarily attributed to acquisitions. See R. Gilson, M. Scholes, & M. Wolfson, *supra* note 11.

13. See A. Auerbach & D. Reishaus, *Taxes and the Merger Decision*, in J. Coffee, L. Lowenstein, S. Rose-Ackerman, *supra* note 6, at 310 (tax losses and credits potentially important in 20% of mergers but fewer apparent tax benefits from stepping up asset basis or leverage); A. Auerbach & D. Reishaus, *supra* note 6, at 27-29 (use of tax losses and credits by acquiring companies appears to have "some impact" on merger activity, while interest deductions

this role seems to have been modest in the recent past; tax effect seldom appear to have been primary motives for acquisitions.¹⁴

A more controversial form of the tax hypothesis -- the so-called "trapped equity" theory -- looks to shareholder-level tax savings as a source of acquisition gains.¹⁵ On this view, share prices reflect the expectation that corporate distributions will be taxed at dividend rates to shareholders. Cash acquisitions, then, create value by allowing target shareholders to extract capital from "corporate solution" at more favorable tax rates, just as shareholders might profit from other unconventional distributions such as share repurchases or liquidations.¹⁶ This mechanism, unlike corporate-level tax gains, is a true discount hypothesis

"could not have been an important factor" during 1968-83). The evidence is more persuasive that tax gains are critical in many management buyouts. See K. Lehn & A. Poulsen, Sources of Value in Leveraged Buyouts (Working Paper) (Feb. 1987); Lowenstein, Management Buyouts, 85 Colum. L. Rev. 730, 759-67 (1985).

14. See note 13 *supra* (citing sources); Roll, *supra* note 6, at 246-48.

15. See, e.g., M. King, Takeovers, Taxes and the Stock Market (draft, London School of Economics, 1986); Auerbach, Wealth Maximization and the Cost of Capital, 93 Q. J. Econ. 443 (1979).

16. See M. King, *supra* note 15, at 5-9.

that operates through the medium of the securities market: Acquirers of corporate assets need only observe that share prices discount the asset values of target corporations. Again, however, because recent studies cut against the trapped equity theory, it is likely to remain a weak form of the tax hypothesis and a poor competitor with other discount hypotheses.¹⁷

B. Discount Hypotheses

True discount hypotheses do not rely on either the private information or the traditional inquiry into how acquirers might extract larger net cash flows from target assets. The discount claim presumes that acquisition premia reflect the existing value of target assets, a value that may be much higher than the market value of target shares. A discount hypothesis must explain why these values differ. In broad terms, two basic explanations are possible, which I term the misinvestment hypothesis and the market hypothesis.

17. See R. Harris, J. Franks, & C. Mayer, Means of Payment in Takeovers: The Results for the U.K. and U.S. 26-28 (National Bureau of Economic Research, Inc., Working Paper No. 2456, 1987) (trapped equity theory totally fails to explain tax developments in the United Kingdom); A. Auerbach & D. Reishus, *supra* note 11, at 28 (share repurchase data, although ambiguous, fail to confirm trapped equity theory).

The misinvestment hypothesis comes closest to traditional accounts of takeover gains. This account locates discrepancies between share prices and asset values in a rational mistrust of managers' future investment decisions. As such, it belongs to the broader family of agency cost theories. Unlike accounts of manager-shareholder conflict over slack and perquisites, however, the misinvestment hypothesis follows more recent analyses of manager-shareholder conflict over the distribution of corporate returns.¹⁸ On this view, managers exercise discretionary control over what Professor Jensen terms "free cash flows": that is, cash flows exceeding the investment requirements of the firm's existing projects. If managers are reluctant to distribute these cash flows and are unable -- or unwilling -- to discover profitable new investments, shareholders will inevitably price firms their asset values.¹⁹

18. E.g., Jensen, Agency Costs of Free Cash Flows, Corporate Finance, and Takeovers, 76 Am. Econ. Rev. 323 (1986); E. Jacobs, The Agency Cost of Corporate Control: The Petroleum Industry (Massachusetts Institute of Technology Center for Energy Policy Research Working Paper 86-021, 1986); Easterbrook, Two Agency-Cost Explanations of Dividends, 74 Am. Econ. Rev. 650 (1984); Coffee, *supra* note 9, at 16-24.

19. Agency cost analyses focusing on distribution policy build upon evidence that managers often seek to maximize total corporate resources including debt capacity. See G. Donaldson, Managing Corporate Wealth: The Operation of a Comprehensive Financial Goals System (1984). Maximizing resources may lead in turn to investments with a negative net present value. Managerial incentives to misinvest in this fashion are variously attributed to organizational inertia; a desire to increase size (or sales) per se; and the

Although the misinvestment hypothesis is conceptually related to traditional accounts of acquisition gains arising from improvements in the operational management of target firms, there is an important difference. Ongoing mismanagement of targets' assets reduces their cash flows. Thus, low share prices may accurately mirror the value of mismanaged target assets; there may be no discounts. By contrast, the misinvestment hypothesis permits discounts to arise even when targets' assets are already put to their best uses. These discounts, which acquirers can exploit, result from the ongoing or expected misinvestment of surplus cash flows in excess of targets' operating requirements. Acquiring firms can profit, then, merely by purchasing discounted shares at any price up to the full value of targets' assets.

The alternative discount hypothesis -- the market hypothesis -- fits less easily with standard accounts of the securities market. On this view, share prices may discount

close associations among firm size, managerial career opportunities, and managerial compensation. Jensen, *supra* note 18, at 323. In addition, misinvestment may follow from managers' relative risk aversion in comparison to that of shareholders. Coffee, *supra* note 9, at 16-24. Whatever the mix of managerial motives, however, it must be strong enough to force real prospective losses in order to generate share discounts. Neither risk aversion nor empire building alone can explain discounts unless the firm faces restricted investment opportunities.

asset values for reasons endogenous to the formation of market prices. Financial economics conventionally assumes that share prices are best estimates, given available information, of the present value of expected corporate cash flows available for distribution to shareholders.²⁰ Thus, share prices should fully capitalize the value of corporate assets in the hands of existing managers. In real markets, this assumption is an approximation; it is unlikely to be either precisely correct or, given the sensitivity of share prices to new information, wholly misguided. It is a very good approximation on the standard view. By contrast, the market hypothesis asserts that discounts arise because share

20. Professor Merton terms this core assumption the "rational market hypothesis". R. Merton, On the Current State of the Stock Market Rationality Hypothesis, M.I.T. Working Paper No. 1717-85, 1 (1985). The same assumption is sometimes termed "fundamental-valuation" or "allocative" efficiency to distinguish it from the presumptively weaker claim that the markets are "informationally" or "speculatively" efficient; that is, that share prices respond to new information too rapidly to permit arbitrage profits. See, e.g., Tobin, On the Efficiency of the Financial System, *Lloyds Bank Rev.* 5 (July 1984); Gordon & Kornhauser, Efficient Markets, Costly Information, and Securities Research, 60 *N.Y.U. L. Rev.* 761, 825-830 (1985). Most discussion of the "efficient capital market hypothesis" focuses on the informational efficiency of share prices. See generally, Gilson & Kraakman, The Mechanisms of Market Efficiency, 70 *Va. L. Rev.* 549 (1984) (examining mechanisms that permit market prices to respond rapidly to new information about corporate prospects). Note, however, that the distinction between informational and allocative efficiency is cogent only if the standard view, the rational market hypothesis, is suspect.

prices are sometimes very poor estimates of the expected value of corporate assets.

Modern objections to identifying share prices with asset values typically fall into two classes. The first class includes "valuation" challenges that question whether a single valuation model can apply across the markets for shares and firms, or even within the share market itself. Even if traders in both the asset and share markets value corporate assets similarly, share prices might nonetheless discount asset values simply because assets and shares differ in ways that matter to traders.²¹ For example, the share prices of firms holding liquid assets might discount asset values if traders placed an intrinsic value on the right to liquidate firms in the asset market -- a right that minority shareholders in these firms would necessarily

21. Professors Lowenstein and Shubik vigorously urge this point as part of their broader advocacy of the market hypothesis. See Lowenstein, *Pruning Deadwood in Hostile Takeovers: A Proposal for Legislation*, 83 Col. L. Rev. 294 (1983); M. Shubik, *Corporate Control, Efficient Markets, The Public Good, and Economic Theory and Advice*, in J. Coffee, L. Lowenstein, & S. Rose-Ackerman, *supra* note 6. A separate argument is that traders in the asset and share markets systematically differ in their valuations of underlying assets or cash flows; for example, that corporate acquirers have different risk preferences or valuation models from traders in shares. See, e.g., Gordon & Kornhauser, *supra* note 20, at 825. This argument, unlike the claim that shares and assets differ, leads back to the problematic overbidding hypothesis. See *supra* notes 4 - 6 and accompanying text.

lack.²² Alternatively, overlapping clienteles of traders within the securities market might have heterogeneous demands for timing, magnitude or tax attributes of shareholder distributions.²³ In this case, shares might sell at either a discount or a premium relative to asset values.

The second and more prominent class of objections to equating share prices with asset values challenges the price setting role of informed traders. Thus, there is a growing theoretical literature on "mispricing" behavior, which argues that uninformed traders may introduce persistent biases or cumulative noise into share prices or that speculative trading might lead to positive and negative price "bubbles".²⁴ Large-scale noise trading -- arising from misconceived strategies, erroneous valuation assump-

22. I am grateful to Bernard Black for suggesting a more developed form of this liquidity discount theory in the context of closed-end investment funds.

23. See, e.g., Thompson, The Information Content of Discounts and Premiums on Closed-End Fund Shares, 6 J. Fin. Econ. 151, 180-82 (1978) (suggesting heterogeneous demand as possible source of discounts on closed-end funds).

24. E.g., Black, Noise, 41 J. Fin. 529 (1986) (cumulative noise in price following uninformed trading); O. Blanchard & M. Watson, Bubbles, Rational Expectations, and Financial Markets, in Crises in Economic and Financial Structure, P. Wachtel, ed., 295-315 (1982) (modeling the formation of "rational" bubbles); Tirole, On the Possibility of Speculation Under Rational Expectations, 59 Econometrica 1163 (1982) (same)

tions, fashion and fads, or simple pleasure in trading²⁵ -- might distort share prices and generate discounts or premia through the sheer pressure of trading. In addition, some commentators suggest that noise trading further distorts share prices by encouraging informed traders to speculate on noise and by imposing "noise trader risk" on all traders in a noisy market.²⁶ Finally, noise theorists find evidence of mispricing in the longterm price behavior of both individual firms and the entire market.²⁷

25. Several sources of noise trading have been proposed. See, e.g., Black, *supra* note 24, at 531 (noise trading by mistake or because trading yields direct utility); R. Schiller, *Fashions, Fads and Bubbles in Financial Markets*, in J. Coffee, L. Lowenstein, & S. Rose-Ackerman, *supra* note 6 (fashions and fads); J. DeLong, A. Shleifer, L. Summers, & R. Waldmann, *The Economic Consequences of Noise Trading*, CRSP Working Paper No. 218, 4-5 (Sept. 1987) (irrational belief or cognitive bias); Trueman, *A Theory of Noise Trading in Securities Markets*, 43 J. Fin. 83 (1988) (rational noise trading by uninformed fund managers to fool investors).

26. For a model addressing both of these effects, see J. DeLong, A. Shleifer, L. Summers, & R. Waldmann, *supra* note 25. In this two-generation, two-period model, some noise traders succeed by unwittingly accepting large risks, and are copied by a second generation of noise traders. These assumptions generate mispricing and "noise trader-created risk", even when there is no uncertainty about the fundamental value of assets. The authors identify noise trader risk as the source of share discounts on closed-end investment funds. *Id.* 25.

27. Much recent evidence concerns the volatility and mean-reverting behavior of share prices. For example, several studies suggest that share prices overreact to bad news about particular firms. See DeBondt & Thaler, *Does The Stock Market Overreact?*, 40 J. Fin. 793 (1985); DeBondt & Thaler, *Further Evidence on Investor Overreaction and Stock Market Seasonality*, 42 J. Fin. 557 (1987). Additional studies indicate mean-reverting behavior on the level of the

For present purposes, however, the important point is less a particular model of noisy prices than the cumulative uncertainty, generated by a wide range of recent research, about the extent and persistence of mispricing behavior.²⁸ Few observers would assert that mispricing never occurs, just as few would deny that share prices rapidly reflect information bearing on future corporate prospects. What remains uncertain is how effectively share prices estimate the full present value of corporate cash flows as distinct from predicting near-term share prices, and how large

market. See J. DeLong, A. Shleifer, L. Summers, & R. Waldmann, *supra* note 25, at 21-24 (summarizing studies). The well-known work of Professor Robert Shiller argues that the market as a whole has exhibited too much volatility to accord with plausible models of fundamental value. See, e.g., Shiller, *supra* note 25; Shiller, Do Stock Prices Move too Much to be Justified by Subsequent Changes in Dividends?, 71 *Am. Econ. Rev.* 421 (1981). Shiller's work and related studies have attracted much methodological criticism. See, e.g., Merton, *supra* note 20. Nevertheless, the mispricing theorists seem to be uniquely well positioned to explain extraordinary events such as the October 1987 market crash. See R. Shiller, Investor Behavior in the October 1987 Stock Market Crash: Survey Evidence 21-25 (National Bureau of Economic Research, Inc., Working Paper No. 2446) (1987).

28. See *supra* notes 21 - 27 (citing sources). For additional discussion, see Summers, Does the Stock Market Rationally Reflect Fundamental Values? 41 *J. Fin.* 591 (1986); Wang, Some Arguments that the Stock Market is Not Efficient, 19 *U.C. Davis L. Rev.* 341 (1986).

residual mispricing effects are likely to be.²⁹ The market hypothesis simply asserts that recurrent discrepancies between share prices and asset values can explain major portions of at least some acquisition premia.

Stepping back from the market hypothesis, then, it is apparent that neither this account nor the misinvestment theory of acquisition gains is easily evaluated. Unlike traditional gains hypotheses such as synergy or private information, the discount hypotheses turn on far-reaching and sharply divergent narratives about the securities market. The misinvestment hypothesis implies that prices sensitively anticipate future management decisions, while the dominant market hypothesis holds that prices may be systematically depressed (or inflated) by noise trading. The fact that both hypotheses can be further particularized in diverse ways makes their evaluation even more formidable. Fortunately, however, one task does not require such an evaluation: namely, examining the discount claim in its own right as a motive for acquisitions. Evidence of discounts can support either hypothesis. But equally important, such

29. See *supra* note 20 (distinguishing speculative from allocative efficiency). Note that noisy or biased share prices are consistent with a broader perspective on market efficiency that looks to costs and returns of acquiring and processing information. See Gilson & Kraakman, *supra* note 20, at 579-588 (price noise as limit on market efficiency).

evidence can also support a unitary account of acquisition behavior that does not immediately force us to choose between discount hypotheses.

II. THE CASE FOR DISCOUNTS

In principle, market discounts must satisfy three conditions to be meaningful. First, potential acquirers and market professionals must be able to frame reliable asset or break-up values for the firm "as is"; that is, as its component assets are already managed and deployed. Asset values in this sense are particularly credible where assets can be separated from the functions of top management. Thus, natural resources or established corporate divisions may lend themselves to reliable valuation, while start-up projects or undeveloped investment opportunities might be impossible to value with confidence. Second, of course, share prices must fall significantly below asset values. And third, potential acquirers must accept appraisals within the consensus range as useful -- perhaps as minimal -- estimates of what target assets may be worth to themselves and competing bidders.

Although these conditions do not invite easy testing, the case for discounts is nonetheless persuasive. Certain specialized firms that hold easily priced assets provide direct evidence of discounting. In addition, pervasive discounting can explain much recent acquisition behavior, in-

cluding breakup acquisitions³⁰, management buyouts, and the sheer size of takeover premia. Finally, support for discounts can be found in many forms of corporate restructuring, including the wave of share repurchases and recapitalizations that swept American corporations during the mid-1980's.³¹

A. Discounts on Specialized Firms

Specialized firms whose shares clearly trade below the value of their assets provide direct evidence of discounting. Because these firms hold fungible assets that trade in separate markets and require little active management, even casual observers can locate discounts by comparing share prices with asset values. The closed-end investment fund is the best example of such a firm, and discounts on closed-end funds have long been viewed as important anomalies by finan-

30. Breakup acquisitions of multi-divisional firms rely on the pre-planned resale of target divisions to finance premia and generate gains. The asset values of such firms are the aggregate appraisal values of their constituent divisions, net of the costs of centralized management.

31. Coffee provides an illuminating overview of the sweep of the share repurchase and leveraged restructuring phenomenon during the 1980's. Coffee, *supra* note 9, at 40-60.

cial economists.³² Yet, discounts appear to be common among holding companies and natural resource companies, which are also firms that possess easily accessible and seemingly reliable asset values. Thus, even though reliable appraisals are not widely available for most firms, the suggestion is clear: Since discounts appear wherever they might be detected, we have good reason to suspect that they may be pervasive elsewhere.

Like mutual funds (or "open-end" funds), closed-end investment funds are investment companies. Like ordinary corporations, however, closed-end funds issue shares that trade publicly but are not redeemable against their issuers.³³ Many closed-end funds hold diversified portfolios of publicly traded stocks and are themselves traded on major stock exchanges. The financial press regularly publishes

32. See, e.g., Malkiel, The Valuation of Closed-End Investment Company Shares, 32 J. Fin. 847, 847 (1977); Thompson, The Information Content of Discounts and Premiums on Closed-End Fund Shares, 6 J. Fin. Econ. 151, 151-52 (1978).

33. In the wider family of public investment companies, closed-end funds are the older and less popular siblings of mutual funds. While mutual funds continuously issue shares and stand ready to redeem them at any time, closed-end funds issue a fixed number of shares at their initial organization. Thereafter, they distribute portfolio returns to their shareholders through the usual corporate devices of dividends and share repurchases. See Board of Govs., FRS v. Investment Co. Inst., 450 U.S. 46, 51 (1980).

dual market prices for both the shares of exchange-traded funds and the net asset value (per share) of their securities portfolios. The interesting feature of these dual prices is that they frequently diverge. Compared with the market value of their portfolios, funds often trade at discounts and occasionally trade at premiums. While start-up funds generally begin trading at a premium, their share prices subsequently drop relative to their asset values. Thereafter, discounts on seasoned funds of 20% or more, persisting for five years or longer, have been common in the recent past.³⁴ Moreover, sustained discounts of this magnitude also afflict the similar closed-end vehicles of dual purpose funds³⁵ and investment trust companies in Great

34. See, e.g., D. Mullins, *Managerial Discretion and Corporate Financial Management*, ch. 5, at 3-5 (unpublished Ph.D. dissertation, Harvard Business School, July 29, 1983); Sharpe & Sosin, *Closed-End Investment Companies in the United States: Risk and Return*, in *European Fin. Assn. 1974 Proceedings* 39-40 (B. Jacquillat). Historically, average discounts on closed-end funds have narrowed during long-term bull markets including 1984-1987. But discounts have reopened to historical levels since the October 1987 crash. See Herzfeld, *Closed-End Funds: Watch that Discount!*, *Personal Finance*, Jan. 20, 1988, at 16 (return of 20 - 30% discounts).

35. Dual purpose funds offer hold diversified portfolios and issue common and preferred shares. Holders of preferred stock receive dividend income from the fund portfolio and a liquidation preference on a pre-set redemption date. Holders of common stock receive capital appreciation. During the early 1980's, these funds traded at a discount relative to the combined market value of their common and preferred shares, despite fixed redemption dates. See Wang, *supra* note 28, at 387-89; B. Malkiel, *A Random Walk Down Wall Street* 344-45 (4th ed. 1985).

Britain.³⁶

Although there have been numerous investigations of discounts on closed-end funds,³⁷ none as yet has satisfactorily accounted for their origins. Discounts are certainly not due to misinformation about the value of fund assets, nor are they attributable to management expenses or trading

36. Macloed, Investment Trust Companies, 5 Brit. Tax Rev. 278, 283-84 (1985). The British investment trusts have received little academic attention, although they represent 6% of market capitalization on the London Exchange -- much more, proportionately, than their American counterparts. In Closed-End Funds, The Action is in London, Business Week, Ap. 16, 1984, at 150, 151. From 1976 through 1986, these trusts traded at 20-30% discounts, or at levels similar to American funds during the 1950's and 1970's. Up for Grabs?, The Economist, Sept. 27, 1986, at 84.

37. E.g., Brickley & Schallheim, Lifting the Lid on Closed-End Investment Companies: A Case of Abnormal Returns, 20 J. Fin. Quant. Analysis 107 (1985); Brauer, 'Open-Ending' Closed-End Funds, 13 J. Fin. Econ. 491 (1984); Leonard & Noble, Estimation of Time-Varying Systematic Risk and Investment Performance: Closed-End Investment Companies, 4 J. Fin. Res. 109 (1981); Thompson, supra note 32; R. Thompson, Capital Market Efficiency, Two Parameter Asset Pricing and the Market for Corporate Control: The Implications of Closed-End Investment Company Discounts and Premiums (unpublished Ph.D. dissertation, Graduate School of Management, University of Rochester, 1978); Mendelson, Closed-End Fund Discounts Revisited, Fin. Rev., Spring 1978, at 48; Malkiel, The Valuation of Closed-End Investment Company Shares, 32 J. Fin. 847 (1977); Roendfeldt & Tuttle, An Examination of the Discounts and Premiums of Closed-End Investment Companies, 1 J. Bus. Res. 129 (1973); Boudreaux, Discounts and Premiums on Closed-End Mutual Funds: A Study in Valuation, 28 J. Fin. 515 (1973).

costs, which are generally modest.³⁸ Tax liabilities may explain some discounting behavior, but even this is unclear.³⁹ Thus, the larger portion of the variance in discounts is fair game for informed conjecture. Not surprisingly, competing explanations divide along the familiar lines of the market-or-manager dichotomy. On the market side, discounts are usually attributed either to gross market inefficiencies or to our failure to understand the true structure of investor returns on closed-end funds.⁴⁰

38. Mendelson, *supra* note 37, at 53-56; R. Thompson, *supra* note 37, at 33.

39. Because investors are taxed directly when funds realize capital gains, discounts might arise from tax liability on unrealized capital gains. Malkiel found that unrealized capital gains and distribution policy were among the few variables that correlated with discount levels. Even so, they "explain only a small portion of the discounts that exist." Malkiel, *supra* note 32, at 857. Most other commentators are similarly skeptical of the tax explanation. See, e.g., R. Thompson, *supra* note 37, at 15-24, 99-100, 135-36; Pratt, *Myths Associated with Closed-End Investment Company Discounts*, *Fin. Anal. J.*, July-Aug. 1966 at 79.

40. Thompson terms the dominate market hypothesis "naive market inefficiency". R. Thompson, *supra* note 37, at 46. Pratt is an early proponent: "most closed-end investment companies, as compared with mutual funds, sell at a discount primarily because of a lack of sales effort and public understanding." Pratt, *supra* note 39, at 82. See also Malkiel, *supra* note 32, at 857-58 (same). Yet, sponsorship by brokerage firms appears to have little to do with discount levels. Mendelson, *supra* note 37, at 66. To muddy the waters still more, Thompson finds that it would have been possible to earn cumulative abnormal returns as high as 4%, or as low as -7.9%, per year by investing in funds with exceptionally high or low discounts over a 32-year period. These data are consistent with naive market inefficiency, but Thompson speculates that they may also arise from clientele effects which introduce heterogeneous demand for closed-end funds. Thompson, *supra* note 32, at

On the manager side, discounts are often ascribed to doubts about future performance, which are usually linked to the investment skills of fund managers⁴¹ but might relate to other risks of misinvestment or expropriation as well. As might be expected, moreover, each genre of discount explanation has significant drawbacks. In particular, the market-based accounts seem to challenge basic hypotheses in financial economics, while agency cost explanations have difficulty explaining why the past performance of funds is only a modest predictor of discounts.⁴² If there is a sig-

180-182.

41. See, e.g., Roendfeldt & Tuttle, *supra* note 37, at 129; Boudreaux, *supra* note 37, at 517. Agency-cost explanations emphasize management investment decisions because there is little room for attributing fund discounts to straightforward costs, such as management fees or churning of fund portfolios. R. Thompson, *supra* note 37, at 33.

42. Mendelson, *supra* note 37, at 55. In addition, it is difficult to explain why investors might fear that poor managers will systematically pick losing investments in an efficient securities market. R. Thompson, *supra* note 37, at 36. Yet, hot new funds often initially sell at premia, apparently because their managers are expected to pick winners. See, e.g., *Forbes*, July 28, 1986, at 123; *Business Week*, Oct. 13, 1986, at 150. Beyond this, the fact that heavily discounted funds are more likely to "open", or convert to the mutual form, when their ratios of management expenses to total assets are small also suggests a role for agency costs. Brauer, *supra* note 37, at 496-99. Large expense ratios may reflect generous compensation or other forms of slack. An agency-cost account of why managers fail to eliminate discounts, however, does not explain how discounts arise.

nificant risk of agency losses, it has not yet materialized -- or at least not since the Great Depression.

Regardless of the origins of discounts on closed-end funds, however, the market demonstrates a rational if uneven response to the existence of large discounts. Discounts rapidly disappear when closed-end funds announce plans to liquidate or merge with mutual funds.⁴³ In addition, funds with larger discounts are more likely to liquidate or "open" than those with smaller discounts, whether openings occur on management's initiative or in response to threats of proxy contests or takeovers.⁴⁴ Thus, discounts are an important stimulus for fund reorganizations and also explain in part the overwhelming market preeminence that mutual funds enjoy over their closed-end competitors. But despite the apparent advantages of the mutual form, many large closed-end funds have weathered years of steep discounts without reorganization, presumably because the costs of proxy contests or

43. Brauer, *supra* note 37, at 503-06.

44. *Id.* at 493-95. Brauer's recent work suggests that the probability of fund openings is itself not fully reflected in market price. See Brauer, Closed-End Fund Shares' Abnormal Returns and the Information Content of Discounts and Premiums, 43 J. Fin. 113 (1988).

hostile takeovers would have exceeded the gains.⁴⁵

For present purposes, the key issue is how far discounting behavior extends beyond closed-end funds. Here, there is direct evidence for at least two categories of firms. The first includes holding companies with large investments in marketable securities. Two familiar examples from the late 1970's, Kaiser Industries and the American Manufacturing Company, suggest that these firms behave much like closed-end funds.⁴⁶ Shares in both of these large corporations traded at discounts exceeding 40% of the total estimated value of their assets, which consisted largely of common stock in publicly-traded affiliates.⁴⁷ At least in

45. R. Thompson, *supra* note 37, at 136-46. Fund managers often fiercely oppose reorganization efforts that would jeopardize the size and viability of funds. Many funds now possess anti-takeover defenses, including super-majority voting requirements and even poison pills. In addition, a freerider effect works against takeover bids priced below the net asset value of funds. Shareholders who hold out to await reorganization following takeovers can receive nearly the full asset value of their shares. Mendelson, *supra* note 37, at 67.

46. More recent examples include Chris-Craft Industries, a holding company with a large stake in Warner Communications, and the Seagram Company Ltd., which currently holds 22.7% of E.I. DuPont de Nemours and Co. See J. Tinker, Morgan Stanley Research Comment, Feb. 10, 1988 (Chris-Craft shares sell for less than Warner holdings).

47. The chief assets of Kaiser Industries were common stock holdings of 56.3% of Kaiser Steel Corporation, 37.4% of Kaiser Aluminum & Chemical Corporation, and 37.1% of Kaiser Cement & Gypsum Corporation. *Umbriac v. Kaiser*, 467 F. Supp. 548, 550 (D. Nev. 1979). Immediately prior to Kaiser's liquidation announcement in 1975, Kaiser shares sold at a discount of 40% off the market value of these common stock holdings alone and 55% off the value of its total

the case of Kaiser Industries, moreover, the announcement of a liquidation and spin-off plan immediately raised the share value of the parent company and eventually eliminated any discount, just as the analogy to closed-end funds would suggest.⁴⁸

The other category of firms that are frequently cited as examples of discounting are natural resource companies. For much of the past decade, oil and timber stocks have traded at less than half of industry appraisal values for their holdings. Even allowing for appraisal errors, such dramatic numbers are difficult to dismiss. They are especially hard to ignore for the oil industry, which witnessed numerous major acquisitions during the same period and accounted for 26% of all acquisition activity between 1981 and 1984.⁴⁹ In addition, as Professor Jensen has argued, recent

assets including its operating companies. D. Mullins, *supra* note 34, ch. 6, at 4. Similarly, American Manufacturing Company, Inc., traded in 1978 at 15% less than the market price of its stock holdings of Eltra Corp. alone, and an estimated 41% less than the total values of all its holdings. M. Whitman & M. Shubik, *The Aggressive Conservative Investor* 382-83 (1979).

48. D. Mullins, *supra* note 34, ch. 6, at 5.

49. W.T. Grimm, *Mergerstat Review* 41 (1984), as reported in Jensen, *The Takeover Controversy: Analysis and Evidence*, in J. Coffee, L. Lowenstein, & S. Rose-Ackerman, *supra* note 6; see also D. Mullins, *supra* note 34, ch. 6, at 16-20 (discussing timber appraisals).

event studies strongly suggest that discounts in the oil industry may have been linked to investor disapproval of corporate investments in costly exploration and development projects.⁵⁰

After natural resource firms, direct evidence of discounts trails off in the absence of reliable appraisals. Estimates of the replacement costs of the tangible assets of public corporations are available and incorporated in "Tobin's Q", a widely-used ratio of the capitalized market value of firms to the inflation-adjusted replacement costs of their tangible assets.⁵¹ The data on Tobin's Q are suggestive. the total market value of corporate equity and debt has varied from a low of roughly 50% of the estimated replacement costs of corporate assets during the late 1940's and mid-1970's to a high of 105% during the bull market of the mid-1960's.⁵² In addition, there is a well-known

50. M. Jensen, *supra* note 49, at 329-30. See McConnell & Muscarella, Corporate Capital Expenditure Decisions and the Market Value of the Firm, 14 J. Fin. Econ. 399 (1985) (decreases in share prices associated with increases in exploration and development expenditures by oil companies).

51. J. Tobin & W. C. Brainard, Asset Markets and the Cost of Capital, in *Economic Progress, Private Values, and Public Policy* 235, 237-238 (1977).

52. D. LeBaron & L. S. Speidell, Why are the Parts Worth More than the Sum? "Chop Shop": A Corporate Valuation Model, exhibit 2 (Prepared for Federal Reserve Bank of Boston Conference on the Merger Boom, Oct. 12-14, 1987) (summarizing U.S. Treasury data and Batterymarch Financial Management estimates). Casual inspection suggests that changes in Tobin's Q for the economy roughly correlate with changes

empirical literature linking acquisitions to low Q values.⁵³ Shares of targets in hostile bids tend to be priced well below the replacement cost of their assets; that is, they have significantly lower Q values than either firms in general or the targets of friendly acquisitions.⁵⁴ If low Q values reflected share discounts, these findings would suggest that pervasive discounts were cyclic and that deeply discounted firms, like deeply discounted investment funds, were particularly vulnerable to restructuring. Unfortunately, however, the Q data may be interpreted in other ways. Low Q values for all corporations might be fully explained by a troubled economy, while unusually low Q values for individual firms might indicate operational mismanagement or the presence of assets that, although costly to replace, are simply no

in average discount levels on closed-end funds since the late 1940's. Compare *id.* (Tobin's Q) with Sharpe & Sosin, *supra* note 34, at 38-40 (average fund discounts).

53. E.g., Bartley & Boardman, Replacement-Cost-Adjusted Valuation Ratio as a Discriminator Among Takeover Target and Nontarget Firms, 38 J. Econ. & Bus. 41 (1986); Simkowitz & Monroe, A discriminant analysis function for conglomerate targets, So. J. Bus., Nov. 1971, at 1.

54. See A. Shleifer, R. Vishny, and R. Morck, Characteristics of Hostile and Friendly Takeover Targets, 17-21 (CRSP Working Paper No. 213) (May 1987).

longer valuable.⁵⁵ In short, Tobin's Q is no substitute for observing discounts directly.

Nevertheless, difficulty in observing discounts across all categories of firms does not diminish the significance of their presence on closed-end funds and natural resource firms. These examples create a presumption in favor of the discount claim. They cannot be ignored unless they can be explained or distinguished as anomalous by some still undiscovered characteristic of the securities market. This is a methodological point at bottom, for closed-end funds are corporate oddities only if the dominant conjecture -- the norm of "no discounts" -- prevails for other firms. In the absence of other data, extrapolating from the evidence at hand seems to be the only defensible course. Again, why suppose that discounts perversely exist only where they can be seen and nowhere else?

B. Acquisition Behavior

55. Additional analysis suggesting that the bulk of Q's influence is an industry-wide (rather than a firm-specific) effect lead Shleifer, Vishny, and Morck to reject an operational mismanagement hypothesis in favor of an industry-wide misinvestment hypothesis to explain the incidence of takeovers among low-Q firms. See id. at 25. If low Q values are indeed an industry-wide phenomenon, they are unlikely to correlate with the performance of particular managers. They might, however, also arise from industry-wide market dynamics.

Given a basic presumption in favor of discounts, the discount claim becomes an intuitively attractive explanation over a broad spectrum of corporate activity. In particular, it accords well with at least two aspects of acquisition behavior where traditional hypotheses falter. One is the sheer size of premia in hostile acquisitions and management buyouts. The other is the recent prominence of break-up acquisitions that exploit perceived differences between the share prices and asset values of conglomerate firms.

Consider first the size of acquisition premia. In recent years, premia have averaged about 50% in management buyouts and 50% or more in hostile acquisitions.⁵⁶ Most studies suggest that acquisitions of all kinds are either zero, or positive, net present value transactions on average.⁵⁷ Thus, on the assumption that most acquirers reasonably expect to recover their premia costs, the obvious

56. See, e.g., J. Grundfest & B. Black, Stock Market Profits from Takeover Activity Between 1981 and 1986: \$167 Billion is a Lot of Money, SEC News Release, Sept. 28, 1987, at pp. 9-13 (reporting total returns on recent tender offers and mergers of 50.1% and citing similar results from other studies); DeAngelo, DeAngelo, & Rice, Going Private: Minority Freezeouts and Stockholder Wealth, 27 J. L. & Econ. 367, 401 (1984) (total returns 59% in leveraged buyouts and freezeouts).

57. See *supra* note 6.

question is: How can they be so sure? Apart from possible tax gains, which few commentators believe to dominate premia, we are left to choose between market discounts and the usual suspects including the displacement of inefficient management, synergy gains, or the exploitation of private information.⁵⁸ Although these various sources of premia and gain are not mutually exclusive, this hardly simplifies matters. We must still learn which sources of gain dominate in which transactions and, in particular, whether discounts yield significant gains at all. In the absence of better information, our only handle is the plausibility of the assumptions that underlie each source of gain.

It is here that the discount claim shows its advantage. Large premia are easily explained if reliable appraisals of large firms can reveal the existence of market discounts. Under these circumstances, acquirers can "see" discounts with standard appraisal techniques and simultaneously learn, within the limits of appraisal error, that the bulk of their premia costs are a simple purchase of assets at their existing values. That is, acquirers learn that their premia costs largely pay for assets that are worth the price if they merely continue to perform as they have in the past.

58. See supra notes 7-9 and accompanying text.

By contrast, the synergy and better management hypotheses require acquirers to value novel and still hypothetical changes in targets' operating assets, while the information hypothesis demands that acquirers routinely discover dramatic good news relative to market expectations about targets.

This comparison becomes more pointed for particular transactions. In hostile bids for large firms, for example, a purely private information story is generally weak. Acquirers lack any unique informational edge over the market, and incumbent managers, who know their firms best, have every incentive to reduce takeover risks by keeping the market informed.

In addition, informational disabilities undermine efforts to explain hostile bids solely in terms of synergy or management gains. Without detailed information about operating assets, novel management or synergy strategies must often be very obvious or very large to be valued -- or even formulated -- with confidence before control changes hands. For example, risk neutral acquirers who are only 50% certain of realizing operational gains from hostile bids must expect gains exceeding 100% of target value to justify 50% premia.⁵⁹ Thus, even when operating changes might yield

59. It may be more realistic to presume that acquirers' managers are risk averse, in which case expected returns would have to be even larger in this hypothetical.

generous returns, acquirers who wish to rely on these changes to justify 50% premia may face an exceptionally difficult challenge. Either they must be able to value hypothetical changes reliably, or they must discover opportunities so lucrative that the uncertainties of planning and valuing wholesale changes in target assets simply cease to matter.

The key intuition, then, turns on the informational constraints confronting hostile acquirers. Generally, these acquirers need much less information to evaluate discounts than to appraise opportunities for management of synergy gains. Rough appraisals of the value of assets "as is" may be generated from aggregate financial data, reporting documents, analyst reports, and general familiarity with an industry. By contrast, valuing operational changes requires familiarity with existing projects that can only come from close study and internal records. The exchanges of information and warranties that characterize friendly acquisitions highlight the uncertainties facing hostile acquirers.⁶⁰

60. See J. Freund, *Anatomy of a Merger: Strategies and Techniques for Negotiating Corporate Acquisitions* (1975) (friendly acquisitions). Apart from this informational point, moreover, operational accounts of takeover premia also face other anomalies. For example, the better management hypothesis runs afoul of survey data suggesting that acquirers prefer well-managed targets. See Coffee, *Regulating the Market for Corporate Control: A Critical Assessment of the Tender Offer's Role in Corporate Governance*, 84 Col. L. Rev. 1145, 1212 (1984). In addition, neither management efficiencies nor synergy gains can easily explain why tender offers by controlling shareholders (who lack obvious synergy

Many commentators implicitly recognize the difficulty of valuing hypothetical changes by surmising that the costs of search for opportunities to extract operating gains is a principal determinant of takeover activity.⁶¹ But this assumption encounters institutional difficulties. Casual evidence of several kinds suggests that acquirers rely heavily upon routine appraisals of the existing value of target assets rather than farsighted assessments of their potential value.⁶² Investment bankers deploy standard valuation pro-

prospects) should reward target shareholders as generously as offers from outsiders. See Roll, *supra* note 6, at 12-13.

61. See, e.g., Easterbrook & Fischel, Auctions and Sunk Costs in Tender Offers, 35 Stan. L. Rev. 1 (1982); Schwartz, Search Theory and the Tender Offer Auction, 3 J. Law, Econ., & Org. 49 (1986).

62. Like most generalizations, this contrast between the informational requisites for evaluating operational and discount gains should not be overstated. Clearly, there are occasions when large synergy or operating gains can be estimated relatively accurately as, for example, when discrete departments or administrative units are simply disbanded, or when assets with relatively fixed costs and revenues -- such as airline routes -- are integrated. Such detailed valuations of potential operating gains do occur and may be critical, even in hostile acquisitions. The question is: How often do they occur and how much do they contribute to total premia in hostile takeovers? Casual empiricism suggests that they are much less important in hostile acquisitions than in friendly deals. Cf. A. Shleifer, R. Vishny, & R. Morck, *supra* note 54, at 26 (contrasting likely synergy gains in friendly deals with hostile bids targeted at firms in low Q industries).

grams in advising their clients, second bidders enter bidding contests on short notice, and outside analysts offer roughly similar and often accurate predictions of acquisition values as soon as firms are rumored to be "in play".⁶³ Moreover, the rapid convergence of offer prices in auctions suggests common criteria for estimating value that seem unlikely to result from operating gains.⁶⁴ Of course, consensus in the acquisitions market might also follow if first bidders fully revealed common opportunities for exploiting operating gains through their offers. But precisely because operating gains are complex and potentially unique to particular firms, this prospect seems unlikely. By contrast, the discount claim organizes many of the basic features of today's takeover market -- large premia, acquirers' "wish lists", rapid decisions, and routine bidding contests -- into a comprehensible game. It is a sporty game. Still, it is less risky than premia levels would otherwise suggest if

63. Schedule 13E-3 reports, filed with the SEC in going private transactions, document the standard valuation reports that investment bankers provide clients for pricing purposes.

64. Synergy opportunities arise from unique complementarities between firms. Thus, bidding contests between dissimilar bidders also caution against attributing premia to synergy gains. Presumably tender offerors can claim the bulk of any such unique gains for themselves. See Leebron, *Games Corporations Play: A Theory of Tender Offers*, 61 N.Y.U. L. Rev. 153, 198 (1986).

acquirers can rely on market discounts to cover the bulk of their offers, and thus limit their real risks to a fraction of their investments.⁶⁵

Similar considerations suggest that discounts may underlie premia in many management buyouts. Private information is an improbable source of premia in large management buyouts, if only because managers seem unlikely to conceal information able to support 50% premia -- and then reveal it through buyout proposals.⁶⁶ In addition, buyouts often

65. Additional evidence for assigning a major role to discounts as a motive for hostile takeovers comes from several sources. First, repeat acquirers often say that they are purchasing discounted assets. E.g., Icahn, Icahn on Icahn, *Fortune*, Feb. 29, 1988, at 54, 55; Lampert, Britons on the Prowl, *N.Y. Times*, *Business World*. Pt. II, Nov. 29, 1987, at 22, 24 (Hanson Trust's Sir Gordon White). Second, targets of hostile bids tend to be asset rich but have significantly lower Q values than firms in general -- although not firms in the same industry. See A. Shleifer, R. Vishny, & R. Morck, *supra* note 54, at 25-26. Finally, the sharp, market-wide drop in share prices since October 1987 appears to have stimulated hostile takeovers. See, e.g., Celis, *Low Stock Prices Spur Takeover Flurry*, *Wall St. J.*, Mar. 1, 1988, at 3 (crash created "bargain atmosphere"). Although the discount claim does not necessarily require an increase in bids following a market crash, the occurrence of such an increase is surely suggestive.

66. See Lowenstein, *supra* note 13, at 743; A. Shleifer & R. Vishny, *Management Buyouts as a Response to Market Pressure* 12-13 (paper prepared for the National Bureau of Economic Research Conference on Mergers and Acquisitions, Oct. 7, 1986). Disclosures to buyout investors and lenders generally become public through Schedule 13E-3 reports and informal circulation. See Lederman, Citron, & Macris, *Leveraged Buyouts -- An Update*, in *Fifteenth Annual Institute on Securities Regulation* 281, 295-99 (1984) (valuation reports circulate widely).

anticipate or respond to threats of hostile acquisitions, which hints that managers and outsiders may pursue the same sources of gains.

The traditional sources of operating gains also seem unlikely to support buyout premia. Pure management buyouts retain corporate divisions intact, but they neither displace managers nor redeploy assets. Any operating gains, therefore, must arise from the incentive effects of offering managers equity stakes in highly-leveraged firms. These effects may be large, but they are highly uncertain. It is difficult to believe that buyout syndicates or unsecured lenders -- the real sources of buyout premia -- are willing to risk large premia solely on their account. Rather, operating gains are more likely to remain inchoate until after buyouts occur. Thus, the conventional wisdom of the business press may well be correct: market discounts followed by tax gains account for the bulk of initial buyout premia.⁶⁷ The second stage in the life cycle of successful buyouts -- when erstwhile targets go public again at well above their initial buyout prices -- may be far easier to

67. Professor Lowenstein, *supra* note 13, systematically develops this position.

explain by operating gains or even private information than initial buyout premia.⁶⁸

Finally, the discount claim can help to explain breakup acquisitions. Breakup acquisitions, whether hostile or friendly, present a clear analogy to the liquidation of closed-end investment funds. Where discounted funds hold portfolios of stocks, breakup targets are typically conglomerates holding several divisions that acquirers can resell piecemeal with their managements and markets intact. Although the *prima facie* likelihood of immediate operating gains from conglomerate breakups is greater than the likelihood of similar gains from management buyouts or the acquisition of natural resource firms, conglomerates would still have to impose enormous costs on their operating divisions for acquirers to generate 50% premia merely by

68. Typical buyouts are geared to a five-year time horizon. Buyout syndicates, which include key managers as equity participants, take the firm private in a highly-leveraged, initial transaction that pays a generous premium to target shareholders. The firm then struggles to pay down its debt. If successful, it is then often resold at a second premium to public investors, private buyers, or a syndicate including a new generation of internal managers. E.g., *Many Firms Go Public Within a Few Years of Leveraged Buyout*, W. St. J., Jan. 2, 1987, at 1; 'Reverse Buyouts' Bring Riches, N.Y. Times, Ap. 2, 1987, at D1. Operating gains that seem unlikely sources of initial premia are natural sources of second-stage premia paid to buyout syndicates, since at this stage operating changes are already implemented and capable of valuation. For a similar analysis, see A. Shleifer & R. Vishny, *supra* note 66, at 9-10.

eliminating the conglomerate structure.⁶⁹ A more plausible place for operating gains in breakup acquisitions occurs -- as in management buyouts -- at the point where corporate assets are resold. Acquirers expect profits from the breakup and resale of target divisions, and these profits, in turn, may reflect the synergy or management gains that are available to the third-party purchasers of target assets. Standing alone, however, these resale profits seem unlikely to explain large initial premia paid to target shareholders.

69. The conglomerate structure does not appear to create wealth for shareholders. See e.g. Coffee, *supra* note 9, at 33-35; R. Gilson, *The Law and Finance of Corporate Acquisitions*, 341-70 (1986). In addition, the record of conglomerate acquisitions, as measured by the percentage of acquired firms that are subsequently divested, has been disappointing. See, e.g., Scherer, *Corporate Takeovers: The Efficiency Arguments*, 2 J. Econ. Perspectives 69, 74-77 (1/3 sell-off rate); Porter, *From Competitive Strategy to Corporate Strategy*, 87 Harv. Bus. Rev. 43, 50-51 (May-June 1987) (56.5% sell-off rate). Professor Porter argues that large decisionmaking costs, revealed by this high divestiture rate, are endemic to the "portfolio" structure of pure conglomerates and explain the steep "conglomerate discount" that the securities market has imposed on conglomerate share prices. See *id.* at 52. The difficulty with this argument, however, is that conglomerate assets frequently appear discounted relative to their performance within the the conglomerate structure -- and by amounts that vary by industry class. See D. Le Baron & L. Speidell, *supra* note 52, at 12-13. It is these results that suggest an independent closed-end fund effect associated with multi-industry firms. *Id.* at 15-17. On this analysis, initial premia paid in breakup acquisitions would reflect the recapture of the pure "conglomerate discount," while the decisionmaking superiority of nonconglomerate organizational structures would be capitalized in the second-step premia paid to breakup acquirers by the end-purchasers of conglomerate assets.

Acquirers and their financial backers cannot predict ex ante the synergy and management gains of end-purchasers.⁷⁰ Once again, operating gains would have to be improbably large to support prepayments of 50% premia, particularly since these gains must be divided between acquirers and end-purchasers in negotiated transactions. While breakups may ultimately generate synergy gains, then, the discount claim presents a more compelling account of initial premia.

Discounts are an appealing explanation of breakup acquisitions for another reason as well. The value of discounts to acquirers rests largely upon the reliability of appraisals. The less certain appraisals are, the larger suspected discounts must be if they are to serve as the certainty equivalents of prevailing premia levels. Aside from natural resource firms, large conglomerates may be among the easiest firms to value because random appraisal errors and informational uncertainties wash out when individual divisions are valued separately -- by, for example, looking to line of business financial data.⁷¹ Thus, dis-

70. Target assets are occasionally "pre-sold" prior to breakup acquisitions. See Investment Bankers Feed a Merger Boom and Pick Up Fat Fees, W. St. J., Ap. 2, 1986, at p. 1, 16. But here, the question is whether end-purchasers can guarantee firm prices before obtaining information to value potential operating gains.

71. See D. LeBaron & L. Speidell, supra note 52, at 6-15 (proposing valuation model).

counted conglomerates may be especially vulnerable targets partly because their discounts are more accurately estimated than those of other firms.

C. Conversion Behavior

After acquisition behavior, the discount claim can also comfortably accommodate a broad class of what might be termed "conversion behavior". The most prominent examples are shareholder distributions financed by debt or the sale of assets, which managers often initiate to raise share prices. Since virtually any form of discounting would imply that these redemptions must indeed raise share prices, their success lends support to the discount claim.

Consider first the intuitive relationship between discounts and distributions to shareholders financed by sales of corporate assets. By hypothesis, shareholders must recapture all discounts net of transaction costs when discounted firms are liquidated at their asset values. It follows that expected distributions from partial liquidations are also likely to raise share prices. If shareholders forecast constant discounts relative to the value of corporate assets before and after partial liquidations, then shareholders will merely expect to recapture discounts on those corporate assets that are actually sold at prices

reflecting "true" asset values.⁷² On the more plausible assumption that distributions may disproportionately affect discounts, fractional liquidations might even lower discount levels on assets that remain in the hands of discounted firms. This is why, presumably, discounted investment funds often liquidate securities to finance periodic redemptions of limited numbers of shares.⁷³

Equally important, however, exactly the same recapture effects should result when managers finance share repurchases by borrowing against the assets of discounted firms. Because lenders look to the cash flows and resale values of assets for repayment, such recapitalizations implicitly arbitrage between the asset and equity markets. Thus, managers should be able to redeem equity with debt -- and reduce discounts -- until the marginal costs of additional

72. Recall that asset values here are the going concern -- or discounted cash flow -- values of assets in the hands of incumbent managers. See *supra* note 3. Absent synergies, market imperfections, or unique managerial skills, however, these values should also approximate what third parties will pay for a wide range of proven capital assets.

73. See, e.g., The Japan Fund, Inc., Notice of Annual Meeting of Stockholders, Mar. 26, 1987, at 6 (share repurchases were alternative short of opening fund for reducing 30% discount); Mullins, *supra* note 34, ch. 5, at 10-12.

debt exceed marginal increases in the value of equity of discounted firms.⁷⁴

On a more theoretical level, this relationship between equity conversions and discounts follows from both major accounts of how discounts might arise. Recall first the misinvestment hypothesis, which holds that investors discount in the rational expectation that managers may misinvest future discretionary cash flows.⁷⁵ On this view, all disbursements to shareholders -- whether they are financed by divestment, debt, or cash on hand -- must reduce discounts by at least as much as they reduce managers' discretion to misinvest. The critical condition here is that disbursements must tie managers' hands; that is, managers must not be able to make the same investment decisions after redeeming shares by resorting to the capital markets to replace lost sources of internal financing. If this condition

74. The costs of additional debt include bankruptcy costs and the agency costs of leverage, i.e., of bearing or protecting against shareholder opportunism at the expense of debt holders. See Jensen & Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. Fin. Econ. 305 (1976).

75. See *supra* notes 18-19 and accompanying text (misinvestment hypothesis).

holds, as the evidence suggests that it does,⁷⁶ then disbursements limit the risks of future misinvestments and may also bolster the reputations of suspect managers who voluntarily attend to shareholder interests.

A similar conclusion follows from a market account of discounts. Recall that under the most prominent form of this hypothesis, noise trading by uninformed investors generates share prices that persistently discount informed estimates of asset values.⁷⁷ Such discounts, however, are unlikely to survive promises either to redeem equity for cash or to convert equity into low risk debt. The reason is that these proposed transactions, regardless of how they are structured, are in fact promises to arbitrage between the asset and share markets.

To see why, begin with a promise to redeem equity for cash at a price equalling a pro rata claim on corporate as-

76. See G. Donaldson, *supra* note 19, at 42-62. Managers' reluctance to seek outside debt may arise in part from a desire to preserve autonomy. *Id.* Agency theorists also suggest that internal financing avoids market scrutiny of projects and the risk of lower share prices that might ultimately threaten management tenure. See Jensen, *supra* note 18, at 323; see also Easterbrook, *supra* note 18 (dividend obligations subject managers to external monitoring). Given a reluctance to seek external financing, whatever its source, cash disbursements, existing debt, and even the soft promise of future dividends tie managers hands under the misinvestment theory, and thus protect against discretionary misinvestment.

77. See *supra* notes 24-27 and accompanying text.

sets -- as, for example, in the announcement of a self-tender offer or a statutory liquidation. In this case, shares become easily-valued claims against the firm that shareholders can shortly expect to cash out at full asset value. Shareholders no longer depend on the market for their liquidity. Nothing changes, moreover, if the issuer promises to redeem with long-term debt in lieu of cash. Low risk, publicly-traded debt is also an easily-valued claim against the firm that leaves little leeway for noise trading because its market value will depend chiefly on interest rates rather than on the firm's long-term business prospects. Finally, consider the more common case in which a discounted firm promises to repurchase, using either cash or debt, its own equity at market price rather than asset value. Here, we return to the simple arithmetic of arbitrage. As the firm buys discounted shares, the pro rata asset value, and hence the market price, of all remaining shares must increase. Indeed, market price should anticipated this effect as soon as a share repurchase program is announced. In addition, under the market hypothesis, price might increase for another reason as well: Share repurchases turn the issuer into a buyer of last resort, and thus introduce limited insurance against mispricing by noise traders.⁷⁸

78. For an amusing discussion that combines these features of the market hypothesis and the misinvestment

Given that equity redemptions can increase the share prices of discounted firms under both the market and the mismanagement hypotheses, many aspects of corporate behavior fall into place. Some of these still await exploration in the literature; for example, the puzzle of why transfers of corporate assets to limited partnerships might increase the share prices of corporations even when most partnership units remain in corporate hands.⁷⁹ But at least two forms

hypotheses into a single justification of share repurchases, see Investor Warren Buffett's 1984 annual report to the shareholders of his investment vehicle. Berkshire Hathaway Inc., Annual Report to the Stockholders, 15-17 (1984). Yet, the distinction between the market and misinvestment hypotheses matters. Although equity conversions tie managers' hands on both accounts, limiting managerial discretion is merely a byproduct of controlling mispricing behavior under the market hypothesis. Correlatively, an advantage of debt over equity is not that it constrains managers -- as under the misinvestment hypothesis -- but that debt simplifies valuation and reduces security holders' risk associated with market mispricing. See *supra* note 26 and accompanying text (noise trader-created risk).

79. E. Freier, Master Limited Partnerships: A Phenomenon in the Enhancement of Corporate Value (Mar. 1986 draft). As misinvestment theorists note, a variety of corporate restructurings besides equity redemptions raise share prices for apparently similar reasons. Thus, positive returns from divestitures, royalty trusts, and master limited partnerships might be explained by the constraints that these ownership changes impose on managers' discretion over free cash flows. See M. Jensen, *supra* note 49, at 319-22; E. Jacobs, *supra* note 18, at 22-25. However, this positive market response is also consistent with the market hypothesis, since these restructurings tend to fix payouts and reduce shareholder dependence on the market. In addition, the misinvestment hypothesis faces difficulties when structural changes raise share prices without seeming to limit management discretion -- as, for example, when corporations retain ownership over all but 10% of the units of master limited partnerships. See E. Freier, *supra*.

of conversion activity have prompted extensive comment: the growing use of financial restructuring as a takeover defense, and a broad pattern of empirical results suggesting that share redemptions and exchanges of equity for debt generally tend to increase share prices.⁸⁰ In both cases, the evidence is consistent with the discount claim.

Equity conversions financed by cash, debt, or divestitures are now routine takeover defenses. The most dramatic illustrations are self-tenders or recapitalizations made in direct response to hostile tender offers. Prominent examples include the recent recapitalization announcements of Union Carbide, CBS, Phillips Petroleum, Gencorp, Caesars World, and Harcourt Brace Jovanovich.⁸¹ In each instance, a recapitalization plan yielded gains to shareholders that approached or exceeded the value of outside offers. In ef-

80. See, e.g., Coffee, *supra* note 9, at 5 (financial restructuring); M. Jensen, *supra* note 49, at 323-27 (empirical results).

81. See M. Jensen, *supra* note 49, at 332-27 (Phillips Petroleum, CBS, and other examples); The New Way to Halt Raiders, N.Y. Times, May 29, 1987, at D1. Although share repurchases can sometimes be coercive, there is little doubt that these recapitalization plans -- which redeemed equity variously through self-tenders, open market purchases, and dividends -- generated large gains. See *id.*; cf. Bradley & Rosenzweig, Defensive Stock Repurchases, 99 Harv. L. Rev. 1377 (1986) (coercive self-tenders and open market purchases).

fect, these targets bid for their own assets and won through what amounts to a leveraged buyout of much of their own outstanding equity. In addition, other firms have earned comparable returns from recapitalizations even without the threat of a takeover.⁸²

Like premia in management buyouts, shareholders' premia in leveraged recapitalizations invite explanation in terms of the discount claim. Tax savings may account for some recapitalization gains, but the case for operating gains or returns from private information seems weak. Longrun operating gains are possible, since heavy borrowing to finance shareholder distributions may ultimately force novel cost-cutting measures on managers. Yet, leeway for belt tightening is uncertain at the outset, and neither lenders nor shareholders can anticipate its results when recapitalization plans are proposed.⁸³ The private information hypothesis is also unpersuasive for much the same reason

82. See, e.g., Cowan, N.Y. Times, May 29, 1987, at D4 (Metromedia recapitalization prompted by controlling family's desire for partial liquidation).

83. Like management buyouts, leveraged recapitalizations might be analyzed in two steps. After initial distributions to shareholders -- analogous to buyout premia -- public shareholders in recapitalized firms retain the equity "stubs", or highly-levered residual claims. The initial distributions may reflect share discounts. Later appreciation in the price of equity stubs, which has generally been substantial, may reflect operating gains. See id.

that it fails to explain premia in management buyouts. Recapitalization gains comparable to acquisition premia are simply too large to attribute to the signaling or disclosure effects of recapitalization plans, particularly when these plans are announced in response to hostile bids. Beyond this, the fact that recapitalizations often respond to hostile outsiders -- and presumably tap the same gains that outsiders seek -- undercuts the plausibility of a private information account.⁸⁴

Leveraged recapitalizations, moreover, are only the most dramatic examples of equity conversions. Many more firms have repurchased equity on a modest scale for what appear to be preemptive reasons. As Professor Coffee observes, the great wave of recent share repurchases and divestitures has followed a sharp increase in takeovers and, equally important, a dramatic expansion of the range of potential takeover targets.⁸⁵ Thus, much of this redemption activity is likely to reflect the desire of incumbent man-

84. To the extent that both recapitalizations and management buyouts are prompted by takeover threats, a private information hypothesis must also confront the evidence against information effects in hostile takeovers generally. See *supra* note 10 and accompanying text.

85. Coffee, *supra* note 9, at 40-44; cf. A. Shleifer & R. Vishny, *supra* note 66, at 4-7 (also attributing acquisition activity and equity conversions to inflation-induced decline in real debt and to improved financing techniques).

agers to reduce acquisition risks by raising share prices. For this purpose, managers have not needed to understand exactly how equity redemptions might work, only that redemptions do work to raise share prices.

A recent empirical literature confirms the price effects of these conversion policies in ways that accord well with the discount claim.⁸⁶ Event studies have found that announcements of share repurchases and equity conversions yield large positive abnormal returns to shareholders (averaging 16% for repurchases and as high as 21.9% for conversions⁸⁷); that conversions of debt to equity generate large negative returns (averaging -9.9%⁸⁸); that new issues of

86. See M. Jensen, *supra* note 49, at 323-28 (surveying studies); Smith, *Investment Banking and the Capital Acquisition Process*, 15 J. Fin. Econ. 3, 4-14 (same).

87. Smith, *supra* note 86, at 8 (Table 2) and 12 (Table 3). Smith aggregates four event studies of share repurchases to yield a two-day abnormal return of 16.2%. Positive returns of 21.9% are associated with self-tenders financed by new debt. *Id.* (citing Masulis, *Stock Repurchases by Tender Offer: An Analysis of the Causes of Common Stock Price Changes*, 35 J. Fin. 305 (1980)). Direct exchange offers of debt for common stock yield a lower two-day positive return of 14%. Masulis, *The Impact of Capital Structure Change on Firm Value: Some Estimates*, 38 J. Fin. 107 (1983). Moreover, even the exchange of preferred stock, which lacks the tax advantages of debt, for common stock generates a positive return of 8%. *Id.*

88. Smith, *supra* note 86, at 12 (citing Masulis' analysis of exchange offers of common stock for debt). Common stock issued to finance the retirement of debt generates smaller negative returns of -4.2%. *Id.* (aggregating three studies).

equity or convertible debt also decrease share prices (by roughly -3% and -2% respectively for industrial firms⁸⁹); and that announcements of new debt without equity features has little effect on share prices.⁹⁰ The apparent pattern, then, is that redemptions or conversions of equity tend to increase share prices, while new issues of equity or equity-like securities decrease share prices. This is just what we might expect if share discounts were widespread, and discounted firms opted for equity conversions and against new issues of equity in disproportionate numbers. Moreover, the fact that new debt alone has little influence on share prices suggests that the price effects of equity conversions and redemptions do not result primarily from leverage-related phenomena such as tax shields created by corporate debt.⁹¹

89. *Id.* at 5; Asquith & Mullins, *Equity Issues and Offering Dilution*, 15 J. Fin. Econ. 61 (1986).

90. Smith, *supra* note 86, at 5; Eckbo, *Valuation Effects of Corporate Debt Offerings*, 15 J. Fin. Econ. 119 (1986). Issues of convertible debt, unlike "straight" debt, are associated with negative shareholder returns on the order of -2%. *Id.* See also Mikkelsen & Partch, *Valuation Effects of Security Offerings and the Issuance Process*, 15 J. Fin. Econ. 31 (1986) (same).

91. Positive returns are also associated with exchanges of preferred for common stock, which cannot be explained by tax savings. See Jensen, *supra* note 18, at 327-28.

As with other evidence of discounts, these results are not conclusive. A competing interpretation of market responses to financing decisions looks (once again) to investor inferences about managers' private information, or what is more commonly styled as the "asymmetric information" problem.⁹² Thus, investors might infer that managers who know that shares are overvalued issue new equity, while those who know that shares are undervalued redeem old equi-

92. Information asymmetries refer to informational disparities between shareholders and managers. Several information-based accounts of capital structure have been advanced. Managers may actively signal information about firm prospects through financing decisions. See Ross, *The Determination of Financial Structure: The Incentive-Signalling Approach*, 8 *Bell J. Econ.* 23 (1977). Alternatively, investors may draw inferences about internal cash flows from managers' external financing decisions. See Miller & Rock, *Dividend Policy Under Asymmetric Information*, 40 *J. Fin.* 1031, 1038 (1985). Or, finally, investors may infer the quality of corporate projects from financing decisions if managers only issue equity when there is no danger of diluting returns to existing shareholders. See Myers & Majluf, *Corporate Financing and Investment Decisions When Firms Have Information that Investors Do not Have*, 13 *J. Fin. Econ.* 187 (1984). These models, and particularly the Myers & Majluf hypothesis, dominate recent empirical literature on financing decisions. Yet, as M. Jensen, *supra* note 49, at 320-33, demonstrates, the data are equally consistent with a misinvestment account of share discounts -- and, as I would add, with a market account of discounts. Indeed, the weight placed on seemingly fragile information effects by researchers on financial policy seems troublesome from the acquisitions perspective. Why, for example, should investors trust managers to value future prospects reliably, much less to reveal their appraisals obliquely through financing decisions?

ty.⁹³ Indeed, such information effects might operate simultaneously with discounts to produce an aggregate association between market returns and equity redemptions. As between these two explanations, however, there is much to recommend the discount claim. It reliably predicts the direction of price responses over the entire spectrum of financing decisions, and it easily extends to defensive recapitalizations where the difference between pre- and post-announcement prices seems too large to attribute to information effects alone. In addition, to return to a familiar puzzle, share repurchases are favorite devices for reducing discounts on closed-end funds, and these repurchase effects cannot stem from the release of information about asset values.⁹⁴

93. See Myers & Majluf, *supra* note 92, at 209.

94. See *supra* notes 33-38 (asset values of closed-end funds are public).

for debt or cash?⁹⁶ To survive, then, discounts must coexist with managers and evade acquirers.

On closer inspection, however, neither of these conditions seems difficult to meet below a critical discount level. Regardless of how discounts arise, managers may not attempt to eliminate discounts voluntarily because large redemptions of equity -- the only certain method of reducing discounts -- can impose costs on managers, limit growth, and may even appear to injure the interests of longterm shareholders. Below a certain threshold, moreover, acquirers will not intervene to claim discounts. Discounts must be large to prompt hostile takeovers because target shareholders rather than acquirers are likely to recapture most of the gains from discounts as takeover premia.

A. Managerial Acquiescence

Explaining why managers might tolerate discounts in the absence of takeover pressures is the easier task. Managers may resist eliminating discounts whether they act from self-interest or solely from their perceptions of shareholders' longterm interests. On one level, it is a simple agency

96. See supra notes 72-80 and accompanying text controlling discounts through equity redemptions).

problem: reducing discounts is likely to be personally costly for managers in ways that compensation arrangements do not offset. The most effective measure -- selling the firm -- is the most costly since it threatens managers' jobs. The alternative measures, such as repurchasing equity while selling assets or incurring debt, are also unpleasant. Both measures retard corporate growth and increase the riskiness of managers' human capital. In addition, divestitures may eliminate top positions or reduce managers' compensation, while debt constrains their discretion and increases their vulnerability to business downturns. None of this can be entirely welcome to managers, who, a large literature suggests, would often prefer to maximize debt capacity, personal discretion, and corporate growth.⁹⁷

Managerial acceptance of discounts, however, is likely to extend beyond a simple preference for size and safety. Even "good" managers who attend to shareholder interests will be motivated to ignore discounts, regardless of how they arise. Under both discount hypotheses, new investment and corporate growth may actually increase the expected

97. See, e.g., G. Donaldson, *supra* note 19, at 36-42, 54-56, 97-102; Marris & Mueller, *The Corporation, Competition, and the Invisible Hand*, 18 J. Econ. Lit. 32, 40-44 (1980); see also Coffee, *supra* note 9, at 17-24, 28-31 (reviewing managerialist literature).

III. WHY DISCOUNTS PERSIST

Once large discounts are plausible, the inquiry shifts to their implications for acquisition activity. Here, paradoxically, the threshold question is how large discounts can simultaneously penalize shareholders, tempt acquirers, and still survive in an active acquisitions market. The evidence from specialized firms and the acquisitions market generally favors persistent or evolving discounts over rapid price shifts that trigger immediate takeovers.⁹⁵ But under this scenario, why don't incipient discounts instantly attract acquirers, or at least prompt managers of discounted firms to limit damage to shareholders by redeeming equity

95. See supra notes 34-36, 43-45 and accompanying text (persistent discounts on closed-end funds). While many investigations of target share prices indicate negative abnormal returns over one to three year periods prior to takeovers, the declines are gradual and substantially smaller than takeover premia. See R. Gilson, supra note 69, at 377-383 (summarizing empirical results). In addition, whether this result still obtains today is uncertain. *Id.* 381-82. Discounts on closed-end funds, however, can widen rapidly under exceptional circumstances such as the October 1987 crash. See supra note 34 (post-crash discounts of 20%-30%). A sharp increase in post-crash takeover activity may indicate a similar effect for firms more generally. See supra note 65 (post-crash rise in takeovers).

value of the firm. In this case, "good" managers will expect shareholders to receive the full value of their investments eventually, either through adjustments in the share prices or through liquidations of corporate assets.

Suppose first that discounts are explained by managers' investment policies. On the misinvestment hypothesis, the market forecasts the quality of a firm's future investments on the basis of its opportunities and the reputation of its managers.⁹⁸ Most managers of discounted firms will be "bad" investors, just as the market fears. In the absence of a takeover threat, these managers will ignore discounts for the very reasons that they are likely to misinvest in the first instance. If they are empire builders, they will value growth over market value; if they are mistaken or incompetent, they will fail to recognize the costs of their investment policies. In some cases, however, the market will misjudge "good" managers who are likely to

98. Under the misinvestment hypothesis, discounts are a joint function of future cash flows, investment policy, and investment opportunities. Thus, a past history of successful investment may not protect against large discounts if managers seem to lack opportunities for successful reinvestment. See M. Jensen, *supra* note 49, at 329-31. In addition, the market carries a difficult valuation burden under the misinvestment theory. It must forecast future interactions among cash flows, opportunities, and managerial policies, while would-be acquirers need only appraise existing assets as they are presently managed.

discover profitable new investments. Good managers will suspect that the market is wrong. But absent takeover pressures, they may also refuse to increase shareholder distributions in order to maximize shareholder wealth (and managers' longterm compensation) by pressing ahead.

On a market explanation of discounts, by contrast, discounts arise from trading dynamics endogenous to the market and not from anticipated misbehavior of managers. Thus, most managers are likely to perceive the true value of their own skills and investment opportunities, and may decide to press ahead in the hope of later vindication. If discounts fluctuate, the market itself will reward persistent managers when discounted prices eventually recover. But even if discounts prove obdurate, discounted managers know that equity conversions can cash out today's successful investments at prices approximating their full asset values in the future.⁹⁹ Thus, there is unlikely to be any simple relationship between the origins of discounts and the degree of management resistance to measures that might control discount levels.

99. For this reason, even controlling shareholders of public firms may have little incentive to eliminate share discounts except as their liquidity needs require. Cf. *supra* note 82 (Metromedia recapitalization prompted by liquidity needs). Thus, the ownership structure of discounted firms is unlikely to distinguish between the misinvestment and market hypotheses.

B. Persistence in the Market

Given that managers will tolerate discounts in the absence of an acquisition threat, the question remains: At what level do discounts pose such a threat? Presumably very large discounts must always attract acquirers. Nevertheless, the size of takeover premia and the survival of heavily discounted investment funds both suggest that discounts must far exceed the transactions costs of takeovers to assure hostile bids. The most likely reason is that target shareholders will claim the larger portion of discount gains in a hostile takeover, just as they appear to do with all sources of acquisition gains that are generally available to multiple bidders.¹⁰⁰ Thus, acquirers will act only when the expected value of their portion of discount gains exceeds their prospective bidding costs. At least three factors contribute to this one-sided allocation of discount gains by pressuring acquirers to pay full value for discounted shares: resistance from incumbent managers, potential com-

100. See supra note 6 and accompanying text. Insofar as bidders do capture gains through their offer prices, these are likely to be unique gains arising, for example, from informational monopolies or synergy opportunities rather than visible and generally available discount gains. See infra notes 111-116 and accompanying text.

petition from rival bidders,¹⁰¹ and the expectations of target shareholders themselves.

The most important constraints on the ability of acquirers to capture discounts on targets are resistance by incumbent managers and competition from rival bidders. The modern defensive tactics at the disposal of target managers -- ranging from poison pills to defensive capitalizations, street sweeps, and the assistance of state legislatures -- can sometimes defeat hostile bids outright.¹⁰² More commonly, however, a determined defense forces the bidder to

101. In a competitive market, bidders can never purchase targets for much less than the values of these targets, net of bidding costs, to other acquirers. This much implies that even bidders for heavily discounted firms cannot earn more than a normal return on discounts alone. By itself, however, this does not explain why large discounts persist. First bidders enjoy a strategic advantage in auctions absent defensive tactics by incumbent managers. E.g., Bebchuk, *The Case for Facilitating Competing Tender Offers*, 95 Harv. L. Rev. 1028, 1036 (1982); Leebron, *supra* note 69, at 183 (sunk-cost paradox). Thus, absent sweetheart deals with white knights, auctions should dissipate all discounts exceeding transactions costs and modest returns to acquirers and target shareholders. This result follows because discounts, unlike operating gains, do not imply significant search costs. See *supra* note 61 and accompanying text. Note also that active managerial resistance, rather than the size of premia, is the most important deterrent to successful tender offer. Walking, *Predicting Tender Offer Success: A Logistic Analysis*, 20 J. Fin. & Quant. Anal. 461, 463 (1985).

102. See, e.g., *Panther v. Marshall Field & Co.*, 646 F.2d 271 (7th Cir. 1981) (scorched-earth defense of making unprofitable acquisitions).

choose between losing the target and raising its bid to meet either the "fair" price set by an investment banker or the counteroffer proposed by a white knight. The investment banker's appraisal will reflect or even exaggerate the target's asset value. The white knight, if one emerges, will enjoy the support of the target's managers, inside information, and perhaps other valuable inducements as well. Even without a white knight, moreover, uninvited rivals will trigger an auction if a first bidder's price falls too far below asset value less bidding costs. Either way, a victorious first bidder is likely to lose virtually all discount gains on the bid itself to target shareholders.¹⁰³

As a result, first bidders who rely on discounts alone can count on only one sure source of gain -- the target stock that the Williams Act allows them to acquire before

103. The deterrent effects of defensive tactics are developed in the now classic accounts of Easterbrook & Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 Harv. L. Rev. 1161 (1981); Gilson, *A Structural Approach to Corporations: The Case Against Defensive Tactics in Tender Offers*, 33 Stan. L. Rev. 819 (1981); and Bebchuk, *supra* note 101. But defensive tactics force bidders to raise their offers even when such tactics do not deter takeovers outright. See, e.g., Jarrell, *supra* note 10, at 157-58 (premium increases from defensive litigation); Oesterle, *Target Managers as Negotiating Agents for Target Shareholders: A Reply to the Passivity Thesis*, 71 Cornell L. Rev. 53, 64-70 (1985). Since discounts are visible and generally available, first bidders are especially unlikely to capture large discount gains by bidding under asset values.

disclosing their bids.¹⁰⁴ Thus, if these acquirers expect resistance, they are likely to pursue discounted targets only when their prospective gains from purchasing target stock on the open market approach their expected bidding costs. Applying this model, we might expect discounts to trigger relatively few hostile offers below some critical threshold: say, between 30% and 40% of asset value,¹⁰⁵ depending on the size and likely resistance of target firms. But above this threshold, increases in discounts should rapidly raise the probability of acquisition. On the more realistic assumption that there are other, marginal sources of gain besides discounts -- for example, possible synergies

104. As amended, Section 13(d) of the Williams Act requires any person who acquires more than five percent of a corporation's shares to file within ten days with the SEC. 15 U.S.C. Sec. 78n(d)(1) (1982). In practice, this permits open market purchases of roughly 10% "toeholds" of target stock at pre-bid prices. The importance of such purchases in providing a bidding incentive is widely recognized. See, e.g., Bebchuk, *The Case for Facilitating Competing Tender Offers: A Reply and Extension*, 35 *Stan. L. Rev.* 23, 31-32 (1982); M. Jensen, *supra* note 49, at 347-48. For a formal development of the role of such block holdings in tender offers and elsewhere, see Shleifer & Vishny, *Large Shareholders and Corporate Control*, 94 *J. Pol. Econ.* 461, 474-477 (1986). Note also that first bidders enjoy the limited strategic advantage of sunk costs in competing with subsequent bidders. See *supra* note 101.

105. These speculative figures assume that discounts are unlikely to be the sole source of gains in hostile acquisitions. See *infra* notes 111-116 and accompanying text (joint gains).

-- critical discount thresholds would be lower and less distinct.¹⁰⁶

Apart from management resistance and bidders, the visibility of discounts to savvy target shareholders may also limit the fraction of discount gains available to would-be acquirers can capture. An investment community that can estimate discount levels knows the lower bound on acquirers' reservation prices. In the absence of pressure to tender created by bidding rules, target shareholders would have little reason to tender for much less than the full value of target assets after acquirers have already sunk their initial bidding costs. Indeed, experience with Great Britain's investment trusts suggests that bids slightly over asset value may occasionally be necessary to acquire heavily discounted trusts.¹⁰⁷

106. See *id.* There are no reliable estimates of the size of bidding costs, which presumably include fees to investment bankers, lawyers, and lenders, as well as managers' time and the reputational and financial risks of overbidding or entering protracted bidding struggles. One author places the total transactions costs of successful offers at 13% of target value, but this estimate is based on early data and appears much too high. See Smiley, *Tender Offers, Transactions Costs and the Theory of the Firm*, 58 *Rev. Econ. & Stat.* 22, 30 (1976). However, investment banking fees alone, the largest single professional cost, may be one percent or more of target value. See *Wall St. J.*, Dec. 2, 1986, at 23.

107. See *The Economist*, Sept. 27, 1986, at 84.

The risk of monetary loss from continuing to hold shares in a discounted firm or from being frozen out at an unfavorable price creates substantial pressure to tender.¹⁰⁸ Even so, a common range of valuations shared among informed investors is likely to limit the discount fraction that acquirers can capture. The pressure to tender is a product of disaggregated decisionmaking. Insofar as informed investors share valuations -- and know that they share valuations -- the differential between successful offer prices and consensus valuations presumably declines.¹⁰⁹ In addition, shared appraisals among informed investors might also mute the bidder's advantage in other respects; for example, by increasing confidence in later bids if current bids are withdrawn, and by marginally improving the value of legal protections such as dissent and appraisal rights.

This summary of familiar arguments suffices to indicate how discounts might survive in a competitive market. Discounts are no less plausible in such a market than other ac-

108. See Bebchuk, *Toward Undistorted Choice and Equal Treatment in Corporate Takeovers*, 98 Harv. L. Rev. 1693, 1708-1713 (1985).

109. See Schwartz, *The Fairness of Tender Offer Prices In Utilitarian Theory*, 17 J. Leg. Stud. 165, 179-83 (1988). But see Bebchuk, *supra* note 108, at 1716-33. The closed-end fund is, of course, the extreme case where investors know asset values precisely and can expect acquisition gains to follow from opening or liquidation.

quisition gains that might be available to multiple acquirers, including tax or operating gains. Indeed, an account of a market driven by discounts resembles the traditional account of a market driven by operating slack in many respects.¹¹⁰ But one distinction remains: While the primary effect of takeovers prompted by slack might be to deter managers from mismanaging real assets, the chief effect of acquisitions triggered by discounts would be to encourage managers to disburse funds or otherwise limit their own discretion to reinvest corporate cash flows.

110. See, e.g., Easterbrook & Fischel, *supra* note 61.

IV. DISCOUNTS AS AN ACQUISITION MOTIVE

Given that discounts are sufficiently stable to survive in an active acquisitions market, the inquiry moves to how they might nonetheless prompt takeovers. Thus far, I have portrayed a world of stable discounts policed by vigilant managers. On the one hand, managers resist outsiders' attempts to recapture discounts through takeovers; on the other hand, managers themselves may be forced to limit discount levels through shareholder distributions in order to control acquisition risks. But this world is only relatively stable. Widespread discounts on target firms might still trigger takeovers by either combining with other sources of acquisition gains or outpacing managers' efforts to control acquisition risks. In addition, the possibility that discounts on potential acquirers might either encourage or deter acquisitions deserves scrutiny, although the evidence thus far does not seem to indicate either of these incentive effects.

A. Joint Gains

The most important way in which discounts can prompt takeovers is in combination with other sources of acquisition gains such as operating gains or private information.

Only large discounts can trigger takeovers in isolation if, as I have argued, target shareholders ordinarily capture most of the value of discounts. Nevertheless, small gains from other sources might transform firms with modest discounts into attractive targets, provided that these ancillary gains are -- unlike discounts -- uniquely available to particular acquirers. The key assumption here is that acquirers are able to capture most unique gains for their own accounts. Like pre-bid purchases on the open market, such gains give first bidders a strategic edge. They are unavailable to rival bidders, and they are likely to be invisible or at least difficult to value for defending managers or the market at large.¹¹¹

A simple example can clarify how such appropriable gains might affect acquisition decisions on the margin. Suppose that a target trades at a 30% discount below its as-

111. Although in theory resistance by target managers alone might force first bidders to relinquish unique gains, in practice resistance is likely to diminish as bid prices approach consensus appraisals of target values. At this point, resistance loses the justification that offer prices are too low. Most firms that resist offers are acquired by second bidders who pay more. See Jarrell, *supra* note 10, at 174. Presumably these bidders can afford to pay more because they learn about new opportunities for gain, unique or otherwise, from defending managers. In this case, only a source of unique gains beyond discounts can give first bidders an offsetting edge beyond the limited advantage of pre-bid market purchases of target stock.

set value of \$500,000,000, and that an acquirer can purchase 10% of the target's stock at the discounted price. In addition, assume that a tender offer for the remaining 90% must be priced at the target's pro rata asset value in order to discourage management resistance, including the solicitation of rival bids.¹¹² In this case, a potential bidder would anticipate a gross return of \$15,000,000 ($0.10 \times 0.30 \times \$500,000,000$) from the target's discount. Thus, if the expected costs of a successful bid -- including professional fees, financing and solicitation costs, contingent liabilities, defensive tactics, and transition expenses -- totaled to, say, \$20,000,000, no acquirer would bid on the basis of the target's discount alone. If, however, an acquirer expected even minor synergy gains (on the order of \$10,000,000) in addition to discount gains, a hostile bid would become an attractive proposition.

112. Of course, when discounts are large, first bidders might deliberately plan to induce second bids or extract greenmail. This game depends on the relative magnitudes of discounts, bidding costs, and pre-bid share purchases. The raider's strategy in a world of discounts is to capture gains by inducing managers to pay full price for discounted shares or, alternatively, to force managers to disclose additional gains opportunities to second bidders. Contrast this account with the raider's role in a world of impacted information. See Gilson, Seeking Competitive Bids Versus Pure Passivity in Tender Offer Defense, 35 Stan. L. Rev. 51, 59-62 (1982) (Carl Icahn as information producer).

As this example illustrates, existing discounts can create a "fund" to defray premium and acquisition costs when even modest operating gains are at stake. First bidders who expect unique operating gains or who have informational advantages may succeed in releasing large premia -- stemming from pre-existing discounts -- to target shareholders. This observation helps to explain the two-stage progression that characterizes many management buyouts, breakup acquisitions, and leveraged recapitalizations.¹¹³ In each case, potential operating gains are unlikely to support 50% premia to shareholders, if only because the information needed to value such gains is unavailable at the initial stage of the transaction. But if large discounts can offset premia and subsidize first-stage transactions costs, even uncertain synergies or management gains might suffice to motivate buyout syndicates or breakup acquirers. Thus, the joint-gains hypothesis can accommodate conflicting evidence about the "real" motives behind these transactions and explain one of their most puzzling features: Why buyers pay "second premia" when breakup assets are resold, buyout targets go public, or residual shares in recapitalized firms appreciate

113. Typically, premia are paid at each stage. At stage two, third-party acquirers pay a second round of premia to first-stage acquirers. See *supra* notes 68-70 & 83 and accompanying text.

in the market. Second premia on this account are merely the rewards of forecasting previously uncertain operating gains.¹¹⁴

The joint-gains hypothesis also bears on possible efforts to test the discount claim. First, it suggests that discount levels alone cannot reliably predict takeovers. Given a distribution of acquirers' opportunities to exploit unique gains, takeovers might occur at all discount levels. The discount claim is probabilistic; larger discounts only increase the likelihood of acquisitions. But second, and more promising, the joint-gains model predicts that average takeover premia may vary inversely with synergies or other acquirer-specific gains. The reason is that without acquirer-specific gains, only large discounts -- which, by hypothesis, yield large premia -- are likely to trigger takeovers. Put differently, acquirers who locate opportunities for large, unique gains do not need to bid for heavily discounted targets that command large premia. Thus, the discount claim might be tested by exploring whether breakup takeovers, for example, yield larger premia on aver-

114. Alternatively, managers in buyouts and recapitalizations may sense opportunities for operating gains from the outset, just as breakup acquirers may research resale possibilities before bidding. See *supra* note 70. The line between private information and operating gains blurs at the margin.

age than acquisitions aimed at obvious synergy gains.¹¹⁵ The same principle may help to explain the lower levels of shareholder returns in negotiated mergers, where synergy and management gains are likely to be visible from the outset.¹¹⁶

B. Changing Acquisition Risks

The second occasion for takeovers in a world of discounts stems from management failure to respond to changing acquisitions risks. Major financial restructurings are costly and time consuming. Last minute defensive tactics often crumble under shareholder pressure when the bidder's price is right.¹¹⁷ In addition, although managers may "see"

115. Such synergies are likely in intra-industry takeovers where significant economies of scale, scope, or vertical integration are available. See R. Gilson, *supra* note 69, at 400-430 (sources of synergy gains).

116. See Jensen & Ruback, *supra* note 6, at 7 (mergers average abnormal returns of 20%, and tender offers 30%, for target shareholders). Opportunities for information exchange and planning make operating gains more visible in negotiated deals.

117. See, e.g., The Office of the Chief Economist of the Securities and Exchange Commission, *The Effect of Poison Pills on the Wealth of Target Shareholders* 25-26 (Oct. 23, 1986) (while poison pills defeated 14 of 30 hostile offers, only 20% targets deploying other defensive tactics remained independent).

discounts, they cannot see takeover risks directly. Only the acquisitions market can reveal how growing discounts or declining acquisition costs alter the risks of hostile offers. Thus, takeovers may occur before targets learn to adapt to exogenous events that modify the economics of takeovers by inflating discounts or lowering takeover costs.

The prime example of such a window of opportunity for acquirers is the most recent wave of takeovers (extending from 1981 to the present) and the even larger wave of corporate restructurings that these takeovers seem to have triggered.¹¹⁸ Commentators agree on at least two underlying causes of this dramatic increase in takeovers. One is the rapid expansion of institutional supports for takeovers, including a specialized capital market.¹¹⁹ The second is the joint impact of severe inflation during 1970's and sustained

118. See Salter & Weinhold, *Corporate Takeovers: A View from the "Buy Side"*, in J. Coffee, L. Lowenstein, & S. Rose-Ackerman, *supra* note 6, at 135-37 (accelerating wave of offers since 1979); Coffee, *supra* note 9, at 3-5 (reviewing sources). Coffee suggests 1984 as the year when breakup takeovers came into their own. *Id.* But takeover, buyout, and restructuring activity has been rising since at least 1981.

119. See, e.g., Coffee, *supra* note 9, 4-5 ("junk bonds"); A. Shleifer & R. Vishny, *supra* note 66, at 5. Presumably this infrastructure of junk bonds, bridge loans, and active prospecting by investment banks responded to novel opportunities for gains.

economic expansion in the 1980's.¹²⁰ Both factors profoundly altered acquisition risks. A maturing acquisitions market dramatically lowered takeover costs, while rising nominal -- and real -- asset values raised discount levels by upsetting existing relationships among corporate cash flows, debt obligations, and distribution policies.¹²¹ The predictable consequence was a burst of takeover activity that persists today as managers continue to adapt financial policies to the new acquisitions climate.

A subsidiary question is precisely how rising asset values act to increase discount levels under both the discount and the misinvestment hypotheses. First, consider Professor Michael Jensen's application of the misinvestment hypothesis to the energy industry. In his view, a sharp increase in oil prices coincided with a sharp decrease in the marginal productivity of new investment in the energy indus-

120. A. Shleifer & R. Vishny, *supra* note 66, at 3-4.

121. *Id.* 5. Professors Shleifer and Vishny, who focus on management buyouts, stress tax savings and discount opportunities arising from the larger net asset values that result when inflation reduces debt obligations and increases firms' free cash flows. For a market hypothesis of how inflation might introduce bias directly into share prices, see Modigliani & Cohn, *Inflation, Rational Valuation, and the Market*, 35 *Fin. Anal. J.*, Mar./Apr. 1979, at 24. By contrast, Professor Jensen excludes past inflation but adds deregulation, relaxed antitrust enforcement, and industry-specific factors to the causes of recent takeover and restructuring activity. Jensen, *supra* note 49, at 316-17.

try during the late 1970's.¹²² Rather than reflect the declining profitability of new investment, however, investment spending rose to match the rising cash flows generated by higher prices. The result could only have been a dramatic increase in discount levels for oil firms.

Although Professor Jensen describes this conjuncture as unusual in its dimensions,¹²³ the misinvestment hypothesis suggests that the same result must occur whenever exogenous events increase the asset values of discounted firms. Without offsetting changes in the investment and distribution policies of such firms, larger discretionary cash flows can only mean more misinvestment and lower returns on total equity. Share prices, then, must always lag behind the revaluation of assets until managers can credibly limit their investment discretion by, *inter alia*, converting equity into debt.¹²⁴

122. M. Jensen, *supra* note 49, at 329-32; see also E. Jacobs, *supra* note 18, at 30 (elaborating Jensen's analysis).

123. M. Jensen, *supra* note 49, at 330-31.

124. Put differently, the misinvestment account does not necessarily require declining returns on new investment, as in Jensen's model of the energy industry, for discounts to increase. Discounts will rise whenever growth opportunities are limited and free cash flows increase, as when inflation devalues debt and increases net asset values for shareholders.

The market hypothesis dictates much the same result. On this view, shares trade at depressed prices due to uninformed trading or speculative biases. Informed traders must look partly to existing prices and disbursement policies to anticipate price changes. Disbursement policies, in turn, influence prices by "focusing" investors on either the asset values of discounted firms or the easily valued terms of debt securities.¹²⁵ Thus, share prices cannot fully -- or even proportionately -- reflect increases in asset values without offsetting changes in disbursement expectations. Exogenous events may increase the free cash flows of discounted firms, but share prices failed to reflect the asset values of these firms even before their reappraisals. Unless the market revises its expectations about the distribution policies of these firms -- after, for example, announcements of share repurchases or higher dividends -- savvy traders must expect even larger discounts when discounted assets are revalued.

In sum, almost any theory that builds financial policy into the formation of share prices implies that these prices

125. Recall that under the market hypothesis, discounts originate in the remote or uncertain payout of common stock, which permits noise trading and imposes market risks on informed traders. See *supra* notes 23-29 & 77-78 and accompanying text. Settled payout expectations in the form of dividends, repurchases, or debt exchanges limit noise trading in this view.

must be "sticky" with respect to changes in asset values. This prediction accords well with the behavior of discounts on closed-end investment funds. At the outset of bull markets, discounts have tended to increase as funds' portfolio values have risen faster than their share prices; while at the outset of bear markets, discounts have tended to decrease as portfolio values have fallen faster than share values.¹²⁶ Furthermore, countercyclical changes in discount levels are also consistent with the recent wave of breakup takeovers and the broader association between acquisitions and rising stock markets.¹²⁷ Although takeover motives other than discounts also link acquisitions to

126. Malkiel, *supra* note 32, at 856-57. Note, however, that discounts decline at the peak of bull markets. See *supra* note 34. Moreover, the October 1987 crash, unlike sustained bear markets, triggered an immediate and large increase in discount levels. *Id.*

127. See R. Brealey & S. Myers, *Principles of Corporate Finance* 722 (2nd ed. 1984). If rising stock markets reflect underlying increases in asset values, then stock prices and discounts might increase simultaneously, just as they have done for closed-end funds. Of course, the value of acquisition gains other than discounts -- for example, operating or tax gains -- is also likely to be greater during boom periods, leaving the relationship between market peaks and takeovers overdetermined. Yet, the discount claim, at least in its market form, can also provide a ready explanation for increases in takeovers after sharp drops in the market, such as the October 1987 crash. See *supra* note 65 (crash-induced takeovers). Larger discounts can be triggered by declines in share prices as well as by increased in asset values.

prosperity, none places as much weight on changes in asset values or so easily explains the parallel behavior of investment funds.

C. Discounts and Acquirers

After examining discounted targets, the remaining issue is whether discounts make firms any more or less likely to become acquirers as well as targets? Here, the best answer may be that discounts have no obvious implications for the acquirer's side of the market. As long as managers are not constrained to eliminate discounts,¹²⁸ discounts clearly will not deter acquisitions. At most, both the market and the misinvestment hypotheses imply that discounts will discourage one form of financing acquisitions, namely, equity financing with new issues of common stock. Whether discounts might actively promote acquisitions -- even to the point of encouraging discounted acquirers to "overbid," as some misinvestment theorists propose¹²⁹ -- is a more dif-

128. Managers forced to reduce discounts would presumably sell or lever the firm rather than pursue acquisitions.

129. See, e.g., M. Jensen, *supra* note 49, at 335; B. Black, *Bidder Overpayment in Takeovers* 2-5 (preliminary and partial draft, Jan. 1988).

ficult question. Much depends on the precise nature of the discounting mechanism. Although overbidding is possible under either discount hypothesis, it has yet to be demonstrated.

First, consider the discounted acquirer from the perspective of the market hypothesis. If the acquirer pays full value in cash or debt for the assets of a target firm, nothing changes for the acquirer's shareholders. The net value of the acquirer's assets and cash flows remains constant; its managers have no reason to change their dividend or other distribution policies. The acquirer's shareholders, then, are no worse off than if the acquirer had never borrowed¹³⁰ or had invested its surplus cash in internal projects with identical returns. Different consequences follow only if the acquirer finances its acquisition with a new issue of equity. In this case, the acquirer pays full value for real assets with discounted shares, which leaves its (old) shareholders with claims against a proportionately smaller pool of assets.¹³¹ Thus, the acquirer's share

130. Recall in this connection that new debt ordinarily leaves share prices unchanged. See *supra* note 90 and accompanying text.

131. In effect, financing with equity forces the acquirer's shareholders to pay the full price of new assets that they only value, through their holdings in the discounted acquirer, at, say, 70% of the purchase price. A simple example may clarify this point. Suppose an acquirer begins with assets worth \$100 and 10 shares outstanding that trade at a 30% discount. i.e., \$7 per share. Next, the acquirer issues 10 additional shares to purchase assets valued

prices must fall, just as share prices generally fall when discounted firms issue new equity.

Next, consider the discounted acquirer from the perspective of the misinvestment hypothesis. The analysis is similar. If a discounted acquirer finances the full price of new assets with equity, it increases the discretionary cash flows controlled by its managers, who can now misspend the combined surplus of the acquirer and the target. Thus, the acquirer's share price is likely to fall.¹³² By contrast, the acquirer who finances with debt or cash does not increase free cash flows in its managers' hands. Debt financing commits the acquirer to payments roughly equal to the value of a target's assets. Cash financing absorbs funds that might otherwise be misspent on internal projects. In either case, the acquirer's share price need not decline because the market does not expect increased misinvestment.

at \$70. Afterwards, the acquirer will have assets worth \$170; but if the 30% discount persists, its share will trade at $0.70 \times 170/20 = \$5.95$ per share.

132. If all else is equal, equity acquisitions by discounted acquirers should impose market losses on shareholders that approximate the present value of the anticipated misinvestment of the free cash flows generated by targets' assets. Correlatively, targets that commanded unfunded growth opportunities and little free cash might impose much smaller costs on acquirers' shareholders.

If discounts do not deter acquirers, however, what of the possibility that they might promote takeovers? Either the misinvestment or the market hypothesis may be extended to support such a claim. On the misinvestment story, managers who pay cash or debt for targets might be viewed as tying their own hands: By purchasing assets today, they assure investors that they will not misspend on internal projects of dubious value tomorrow. In this case, acquisitions made at a fair price would raise acquirers' share prices, while "overbidding" -- or paying too much -- would not lower share prices unless it disappointed the market's already meager expectations.¹³³ By contrast, a parallel analysis under the market hypothesis would presumably rest on a behavioral assertion about noise traders. For example, if discounted acquirers could increase their stock prices by acquiring popular targets, then acquirers might speculate that since discounts are not related to management performance, they might at least respond to changes in asset

133. On the basis of this analysis, both M. Jensen, *supra* note 49, and B. Black, *supra* note 129, have proposed that overbidding may be common. In B. Black's account, acquirer overbidding displaces target discounts as the dominant explanation of acquisition premia. But cf. *supra* notes 4-6 (discussing overbidding hypotheses).

portfolios.¹³⁴

But there is a problem with pushing beyond the weak claim that discounts allow acquisitions to the stronger claim that they promote takeovers. Neither of the discount hypotheses in its general form compels such a step. Moreover, there is as yet no forceful empirical evidence to support it.¹³⁵ Occam's razor thus suggests that we do not treat acquirers' discounts as an independent acquisition motive. As long as discounts do not inhibit acquirers, however, takeovers would continue unabated, and serve to check

134. For example, a discounted oil firm might purchase popular high technology firms, as Exxon once did without success. Similar strategies have been popular in the past. Consider the once common assertion that the conglomerate mergers of the 1960's were able to extend high PE ratios to low PE targets. See R. Gilson, *supra* note 69, at 303-309. Today, however, diversification of asset portfolios seems more likely to increase discounts than to reduce them. See *supra* note 69.

135. Absent overbidding, firms that could reduce discounts through acquisitions would presumably be money machines. Their acquisition bids would dominate other bids and consistently produce large shareholder gains. But there is little evidence of such gains. Alternatively, of course, discounted bidders might dissipate their potential gains by overpaying. See B. Black, *supra* note 129, at 2-5, 20-21, 29-36. This would explain why large gains do not accrue to acquirers' shareholders, but it would leave overbidding itself unexplained. Why should an class of acquirers systematically pay too much unless the supply of targets is limited? Rather, the plausibility of overbidding hypotheses derives largely from the magnitude of existing acquisition premia, which is precisely the phenomenon that discounts can explain in the first instance.

discounts on targets, even if all firms were discounted. The only constraint in a world of universal discounts would be that acquirers could not pay with stock -- the equivalent of "after discount dollars" -- but would be forced to pay with cash or debt.¹³⁶

136. Such a distinction between forms of consideration is more than hypothetical. Besides the empirical literature on new issues of equity and debt, see *supra* notes 86-91 and accompanying text, several studies have found that shareholders earn significantly larger returns, consistent with this analysis. See R. Harris, J. Franks & C. Mayer, *supra* note 17, at 42-45 (cash offers yield larger gains in U.S. and U.K. to target shareholders and superior postmerger stock performance to acquiring shareholders); Choi & Philipatos, An Examination of Merger Synergism, 3 J. Fin. Res. 239, 251-54 (1983) (debt rather than equity financing yields superior returns to acquiring shareholders in conglomerate mergers); Halpern, Corporate Acquisitions: A Theory of Special Cases? A Review of Event Studies Applied to Acquisitions, 37 J. Fin. 297, 305-306 (1983) (returns to target shareholders are significantly higher in cash than in equity mergers).

V. IMPLICATIONS FOR TAKEOVER REGULATION

Thus far I have argued that the discount claim is a useful framework for exploring important elements of acquisition behavior regardless of how discounts arise. As an acquisition motive, discounts lead to similar behavior regardless of how they are explained. Both the misinvestment and market hypotheses can account for this behavior because both permit share prices to diverge from asset values and both allow managers to influence discount levels through identical financial policies. On the misinvestment account, financial policies that restrict investment discretion or distribute cash flows also limit losses from future investments. On the market account, the same policies focus traders on asset values or on the easily valued terms of debt securities. Together, then, the misinvestment and market stories support a single acquisition motive -- the opportunity to capture discounts -- that compares with other motives including opportunities to exploit operating gains or private information.¹³⁷

137. Beyond supporting the same acquisition motive, the misinvestment and market accounts also suggest similar motives for other types of corporate behavior. Under the misinvestment hypothesis, for example, spin-offs, divestitures, conversions to limited partnerships -- and even, ironically, visible commitments to particular capital projects -- might raise share prices by limiting management investment discretion. Under the market hypothesis, the

Yet, discount hypotheses part company abruptly at the level of policy analysis. The misinvestment hypothesis views takeovers favorably. Given this view, regulatory debate is likely to center on the design and justification of a statutory auction period. By contrast, the market hypothesis counsels against takeovers triggered by discounts. From this perspective, policy discussion is likely to focus on the merits of selectively deterring discount-driven takeovers.

A. The Misinvestment Hypothesis and the Auction Debate

Under the misinvestment hypothesis, discounts reflect the risk that managers will misallocate capital in the future. This implies that share prices for well-managed firms should always equal or exceed corporate asset values. Individual takeovers may or may not shift assets to higher valuing users,¹³⁸ but at least they shift share prices in the right direction. More importantly, the risk of acquisition prompts suspect managers to reduce discounts by tying their

same range of devices might also raise prices by influencing traders' disbursement expectations or focusing investors on underlying asset values.

138. Recall that acquirers may also be discounted.

own hands, and so allows the market a weak veto over investment policy. It follows that legal rules should lean toward increasing acquirers' net returns, which in turn will increase in the risk of takeovers, force more hands-tying on discounted managers, raise the quality of corporate investments, and assure that share prices more closely reflect asset values. On this view, auction periods that invite defensive tactics by incumbent managers or rival bids by white knights are suspect.

The Williams Act¹³⁹ structures a de facto auction period for tender offers pursuant to its broad purpose of safeguarding target shareholders from coerced or poorly informed decisions. The Act requires, inter alia, that bidders report open market purchases after accumulating 5% of a target's voting securities,¹⁴⁰ and allow a minimum of 20 business days following tender offers during which shareholders may tender or withdraw their shares.¹⁴¹ The first provision limits possible gains on pre-bid purchases of

139. Pub. L. No. 90-439, 82 Stat. 454 (1968) (codified as amended at 15 U.S.C. Sec. 78n(d)-(f) (1982)).

140. 15 U.S.C. Sec. 78n(d)(1) (1982).

141. 17 C.F.R. Sec. 240.14e-1(a) (1987) (offers must remain open at least 20 business days); 17 C.F.R. Sec. 240.14d-7(a) (1987) (tendered securities may be withdrawn any time during the period the offer remains open).

target shares, while the second allows 20 days for rival acquirers to initiate offers and for defending managers to "shop" the target or pursue defensive strategies ranging from harassing litigation to poison pills and recapitalization plans. The effect of these provisions appears to have been a dramatic increase in takeover premia since the passage of the Williams Act.¹⁴²

Since larger premia are presumed to reflect increased misinvestment costs, the misinvestment hypothesis strongly supports reform of the operative provisions of the Williams Act. The primary issue is whether the entire Act works to inflate takeover premia or only one of its features has this consequence: the window for defensive tactics and friendly deals that the Act creates. Thus, the misinvestment hypothesis leads to the familiar debate over auction periods by a new route.¹⁴³ Repealing the Williams Act in toto would

142. See Jarrell & Bradley, *The Economic Effects of Federal and State Regulations of Cash Tender Offers*, 23 J.L. & Econ. 371, 389 (1980) (target shareholder abnormal returns increased from 22% to 40%, while bidder returns dropped from 9% to 6%, after passage of the Williams Act).

143. Chief defenders of auctions include Bebchuk, *supra* note 101; Gilson, *supra* note 103; and Coffee, *supra* note 60. Opponents of auctions include Easterbrook & Fischel, *supra* note 61; and Schwartz, *supra* note 61. In its classical form, the debate balances two sets of competing considerations. On the debit side, auctions are said to reduce returns on first bidders' search costs, thus lowering the probability of value-creating takeovers. On the credit side, auctions are said, *inter alia*, to transfer of assets to their highest-valuing users and to reward target firms for generating synergy opportunities. Participants in the auction debate have focused primarily on traditional gains

obviously lower the threshold at which discounts could persist in the acquisitions market without attracting suitors. But repealing the Act would also eliminate any auction period, with the consequence that acquirers might be able to capture most available discount gains by resorting to high-pressure, "take it or leave it" offers.¹⁴⁴

Allowing acquirers to capture the lion's share of large discounts would be regrettable for at least two reasons. First, it would needlessly cloud the inchoate claim of target shareholders to the going concern value of their firms. Discounted shares underprice the value of expected cash flows from existing corporate projects. Implicitly, both the Williams Act and evolving state corporation law seem to recognize this value as the appropriate measure of shareholders' claims.¹⁴⁵ Second, quite apart from existing

hypotheses, although all acknowledge that sources of gains are important for evaluating auctions.

144. Repeal of the Williams Act auction period would reintroduce "Saturday Night Specials", or 24 to 48-hour take-it-or-leave-it offers, that would undoubtedly exploit shareholders' vulnerabilities far more than strategic bidding behavior still permitted by Williams Act. See Schwartz, *supra* note 109, at 175-79; Bradley & Jarrell, *supra* note 142, at 376.

145. The Williams Act does so merely by attempting to assure that shareholders can make an informed tender decision. State corporate law does so by according shareholders appraisal rights in corporate mergers and employing asset values to determine fair prices when firms are sold. See *supra* note 3 and accompanying text.

claims, there is a plausible efficiency argument for permitting shareholders to recapture discounts: redistributing cash flows from target shareholders to acquirers may increase the costs of capital for all corporate projects by jeopardizing the claim of shareholders to future returns on their investments.¹⁴⁶

Given these concerns, an auction period that limits acquirers and protects target shareholders is clearly attractive, as long as it does not raise acquisition premia and insulate discounts by deterring first bidders. But why must auctions deter first bids in a world of discounts? In fact, first bids are likely to deter rival bids if the only gains available to all bidders are discount gains. A first bidder's sunk costs, including its pre-bid stock purchases, give a strategic edge that potential rivals are unlikely to challenge, absent a low first offer or a helping hand from target managers.¹⁴⁷ Conversely, rival bidders threaten

146. Bebchuk first introduced this argument in the context of synergy gains. Without auctions guarantee target returns, potential targets might avoid projects that could create synergy opportunities for acquirers. See Bebchuk, *supra* note 101, at 1049. The argument extends easily to discounts, since all corporate projects might be vulnerable to discounting. For a provocative critique of both efficiency and normative justifications for auctions, however, see Schwartz, *supra* note 61, at 62-69.

147. See *supra* note 101.

first bidders chiefly when they can exploit large gains that are foreclosed to first bidders, gains that are most likely to arise from the defensive tactics or private information of target managers. Regulators, then, can neutralize the effects of auctions on discount levels by barring target managers from any favoritism or defensive tactics, limiting auction periods, and permitting acquirers to make generous pre-bid share purchases -- or by adopting all three measures.¹⁴⁸

The same point can be made about shareholder resistance to first bids. Without the prospect of second bidders or support from incumbent managers, target shareholders have every incentive to accept first bids that approximate consensus asset values net of transactions costs and normal returns to acquirers. Indeed, given the risks to continuing shareholders who fail to tender their shares under present

148. In particular, strictly limited auction periods preclude rival bidders from closely valuing opportunities for unique acquisition gains, such as operating synergies. See *supra* note 60 and accompanying text. Thus, limited auctions would focus bidding on discount gains. This result, however, is precisely what misinvestment analysts should desire in order to safeguard first bidders' incentives to act on the basis of discounts alone. Such a justification for limiting auctions conflicts with the view that auctions ought to transfer assets to their highest valuing users. See *supra* note 143. It does not conflict, however, with existing limitations on bidding periods under the Williams Act.

law, target shareholders may be inclined to accept a good deal less than this.¹⁴⁹

In sum, moderate proponents of the misinvestment hypothesis would be likely to prescribe: 1) a ban on target defensive tactics, 2) a limited auction period, 3) a generous opportunity for pre-bid open market purchases, and 4) a rule of informational parity among rival bidders. The implications of the misinvestment hypothesis for efforts to alleviate distorted tender choices by target shareholders are less clear, although such reforms would not necessarily be precluded.¹⁵⁰

B. The Market Hypothesis and Management Discretion

In contrast to the misinvestment hypothesis, the market hypothesis pulls in a very different direction. On this

149. See Bebchuk, *supra* note 108, at 1722-23 (pressure to tender).

150. See, e.g., *id.* at 1748-49 (right to tender disapprovingly as device for overcoming shareholders' collective action problem). As discount levels decline, it becomes critical in the misinvestment view that shareholders do not exploit first bidders' sunk costs by demanding premia equivalent to gross asset values of discounted targets. The import of this problem is unclear, however, given shareholder uncertainty about the magnitude of these costs and the likelihood that shareholders would be worse off if bids failed.

view, many takeovers occur in response to trading dynamics in the securities market that have no correlation with the management of real assets or the investment of corporate cash flows. Yet, the chief danger may not even be that discounts generate socially wasteful takeovers; over time, discounted managers can adjust discounts through equity conversions to mitigate their acquisition risks. Rather, the primary danger may be that this adjustment is itself exorbitantly costly in real terms because it forces inefficient capital rationing on firms and biases managers toward short-term projects and excessive distributions to shareholders. Presumably these real losses dwarf any secondary benefits of discount-induced takeovers, including efficiencies from more accurate pricing in the securities market.¹⁵¹

Given the costs of skewing corporate investment policies, the key problem from the market perspective is when to permit hostile acquisitions at all. Here, too, there is a simple solution akin to repealing the Williams Act under the misinvestment hypothesis, namely, a flat ban

151. On the market hypothesis, takeovers arbitrage between the asset and securities markets, and thus "correct" discounted share prices. This price effect reduces market risk for investors, and lowers the cost of capital. Note, however, that while costless takeovers might eliminate all discounts on the market view, there is no analogous transaction to dispel share premia.

on hostile takeovers. Indeed, this would be the only sensible reform if managers reliably attended to shareholder interests and discounts were the sole motive for takeovers. After all, who but the firms' managers should balance a firm's investment prospects against its acquisition price or the heterogeneous values that shareholders might place on investments and distributions in a noisy securities market?

Yet, there are important difficulties with a ban on hostile acquisitions, even under the market hypothesis. First, it fails to weigh shareholders' liquidity and risk preferences. By assumption, share prices are subject to arbitrary discounting. Since shareholders cannot exercise redemption rights against corporations at will, the values of their claims are inevitably reduced by the unpredictable, and potentially unrestricted, volatility of share prices. Second, discounts may not be the only source of acquisition gains. Insofar as takeovers may also tap synergies or management gains, a ban on hostile offers would deprive shareholders of valuable opportunities. Further, the assumption that share prices are untrustworthy hardly implies the converse proposition that managers are reliable agents of shareholder interests in acquisition decisions.

Thus, lawmakers who accept a market analysis are likely to prefer specific deterrents to discount-driven bids over a global ban on hostile acquisitions. Several deterrent strategies are possible. One is to bar or discourage ac-

quisitions that clearly arbitrage between share prices and asset values, such as breakup acquisitions or takeovers financed by leveraging against targets' assets. Recent New York State takeover legislation moves in this direction.¹⁵² A second alternative is to neutralize discounts as motives for takeovers by assuring that all discount gains go to target shareholders. This effort would simply invert the prescriptions of the misinvestment hypothesis by, for example, barring bidders from any open-market purchases or mandating lengthy auction periods to aid searches for second bidders with unique gains. Recent proposals for amending the Williams Act as well as the extended waiting periods mandated by some state takeover statutes move in this direction.¹⁵³ Finally, market-oriented lawmakers might follow a

152. New York prohibits state corporations from entering into a "business combination" with a 20% stockholder for five years after the 20% threshold is crossed, unless the target's board of directors has approved the combination before the 20% acquisition. N.Y. Bus. Corp. Law Sec. 912(b) (McKinney 1986). Inter alia, this requirement limits the easy sale or leveraging of target assets to finance takeovers. In addition, proposed Congressional legislation has also sought to regulate tender offer financing and the issuance of junk bonds. E.g., H.R. 685, 100th Cong., 1st Sess. (1987) (Rep. Richardson) (one-year moratorium on junk bond financing).

153. On the federal level, several recent bills propose restricting the 5% reporting threshold, extending the mandatory offer period, or both. See, e.g., S. 521, 100th Cong., 1st Sess. (1987) (Sen. Simon) (lowers reporting threshold to 2%, reduces reporting window to 2 days, and extends offer period to 45 days); S. 678, 100th Cong., 1st Sess. (1987) (Sen. Metzenbaum) (reduces reporting threshold to 3%, reduces reporting window to one day, and extends offer period to 60 days). In addition, many state statutes

strategy of restricting the voting rights of "short-term" shareholders. Such a strategy would entrust the tender decision to proven shareholders who invest for "long-term" gains at the cost of eliminating the arbitrageurs' role in facilitating hostile bids. This strategy is is presaged by the recent wave of charter amendments that attempt to shift voting power to long-term investors and corporate insiders.¹⁵⁴

These examples illustrate how far the policy implications of the market and misinvestment hypotheses are likely to diverge. There are, to be sure, considerations within each perspective that might temper reform proposals. Thus, within the market framework, large discounts impose market risks and agency costs on shareholders that would persist even if mispricing were the sole source of discounts; within the misinvestment framework, some managers might be forced

effectively increase offer periods. See, e.g., Indiana control shares acquisition Statute, Ind. Code Ann. Secs. 23-1-42 (Burns Supp. 1987) (increasing offer period to 50 days or more in practice). Lowenstein, *supra* note 21, at 317-18, proposes a far more dramatic six-month open offer period.

154. See Pamepinto, Dual Class Common Stock and Unequal Voting Rights (Investor Responsibility Research Center Corporate Governance Service, Jan. 1987) (listing of exchange-traded firms with dual class common stock); see also M. Shubik, *supra* note 21, at 47 (voting constraints from the perspective of the market hypothesis).

to sacrifice profitable investments if market forecasts were -- as seems inevitable -- often noisy or wrong.¹⁵⁵ But these secondary considerations do not alter the policy thrust of either hypothesis. The basic dilemma remains: Both hypotheses give credible and internally consistent accounts of acquisition behavior; nevertheless, they lead to very different and mutually incompatible prescriptions.

155. Market forecasts of future management policies and opportunities are necessarily uncertain. It follows that managers may often be erroneously discounted, even when discounts are rational in the aggregate. This risk imposes costs on investors akin to the costs imposed by biased share prices under the market hypothesis. First, talented managers who are erroneously discounted may abandon profitable investment opportunities. Second, there are "excess deterrence" costs. Coffee, *supra* note 60, at 1238. For example, if all managers risk displacement as a result of "mistaken" discounting, even talented managers may invest to minimize acquisition risks rather than to maximize shareholder returns. The question is whether such investment biases could be neutralized by compensation incentives such as golden parachutes or project bonuses. If not, investors might prefer to insulate modest discounts from takeovers bids in order to avoid more serious incentive problems in the shareholder-management contract, even under the misinvestment hypothesis. Investors might also prefer to insulate modest discounts under the misinvestment hypothesis to reduce managerial incentives to engage in costly but unsuccessful efforts to mislead the market about the value of corporate projects. See J. Stein, *Efficient Stock Prices, Inefficient Firms: A Signal-Jamming Model of Myopic Corporate Behavior* (Jan., 1988) (working paper).

VI. CONCLUDING REMARKS

I will not attempt to resolve the dilemma of choosing between discount hypotheses in this paper. For the most part, analytical arguments that might seem to decide the issue are illusory. The misinvestment hypothesis always retains some plausibility when managers exercise discretion over investment policy. Without direct insight into the expectations of securities traders, the fact that discounts may seem to have been unjustified ex post can never fully answer the claim that they were indeed rationally related to investors' ex ante expectations.

At first glance, the market hypothesis might seem to be more vulnerable. For example, one might argue that it is discredited by the mere existence of hostile takeovers. Takeovers seem to create a puzzle for the market hypothesis. If mispricing creates discounts, why would acquirers ever initiate tender offers and displace incumbent managers in lieu of simply investing in discounted firms? Under the market hypothesis, passive investors eventually receive a pro rata portion of a discounted firm's expected cash flows. Thus, it may seem that acquirers should become rentiers rather than sharks. They should collect their return as dividends, or wait for price swings in the market, rather

than sharing discounts with target shareholders by paying out acquisition premia.¹⁵⁶

There are several responses to this argument. One is that many large investors, including some well-known acquirers, sometimes do invest passively in firms they consider undervalued.¹⁵⁷ A second is that acquirers may seek joint gains that are available only upon assuming control of discounted targets. A third response is that acquirers may not know why firms are discounted. They may thus blame target managers for discounts even when these managers merely fail to reduce discounts.¹⁵⁸ But the most basic response to the question "Why takeovers?" arises from market

156. Thus, rather than making a single acquisition, an acquirer might purchase, say, 10% blocks in ten equally discounted targets. If these investments only marginally affected share prices, the longterm returns from this strategy should, on the market hypothesis, exceed the returns from a single acquisition. The acquirer would purchase the same aggregate claim on future cash flows at a lower cost because it would not pay an acquisition premium. By hypothesis, acquisition premia reflect share discounts. See *supra* notes 56-65 and accompanying text. I am grateful to Henry Hansmann and Bob Clark for independently suggesting this objection to the market hypothesis.

157. See, e.g., Icahn on Icahn, *Fortune*, Feb. 29, 1988, at 54, 55 (strategy of asset arbitrage does not necessarily involve displacing management); *supra* note 78 (Warren Buffett's strategy of passive investment).

158. Acquirers face an easier valuation task than passive investors: They need not decide how discounts arise. If there is any uncertainty on this point, the only safe course may be to displace incumbent managers.

hypothesis itself. Passive investors have no assurance that discounts will ever disappear. To be sure, perpetual discounts need not matter to very longterm investors. For corporate investors, however, investing passively in discounted firms is to risk becoming a holding company subject to precisely the same discounts that afflict closed-end investment funds. In effect, passive investment invites double discounting for corporate investors.¹⁵⁹ Under the market hypothesis, only transactions that redeem shares for asset values can eliminate discounts with any certainty.

While there may be other analytical challenges to the market hypothesis, they are unlikely to succeed without new empirical support. Both the market and the misinvestment hypothesis are defensible on the basis of existing literature.¹⁶⁰ Paradoxically, the empirical case for accepting

159. See supra notes 46-48 and accompanying text (holding companies). Investment analysts commonly assert that such double discounts exist. E.g., J. Tinker, supra note 46 (double discount on Warner Communication shares held by Chris-Craft Industries).

160. See supra notes 19-29 and accompanying text. I prefer the misinvestment hypothesis for its simplicity and fit with the dominant paradigm of share prices in corporate finance. Recent analyses of the energy industry, moreover, serve as cogent models of how the misinvestment hypothesis might be elaborated more generally. See M. Jensen, supra note 49; E. Jacobs, supra note 19; cf. A. Shleifer, R. Vishny & R. Morck, supra note 54 (generalizing free cash flow explanation to low Q industries). Nevertheless, the growing literature on noise trading, the October 1987 market crash, and the puzzling behavior of closed-end investment funds are useful reminders of how far we remain from understanding securities prices. The simplicity of the misinvestment hypothesis falls short of providing a definitive

discounts as an acquisition motive is more persuasive than the case for selecting either account of how discounts arise. This conclusion should not disappoint. If discounts are indeed as pervasive as I have suggested, the discount claim successfully organizes broad elements of otherwise puzzling corporate behavior. In lieu of selecting a discount hypothesis, however, I offer a final observations that has been implicit in my discussion thus far.

A basic shift in legal argument follows from the introduction of financial economics into corporate law. The choice between discount hypotheses is not the only example, even in the acquisitions literature, of the difficulty of choosing between broad narratives about market behavior.¹⁶¹ This difficulty is pervasive, and it accounts for much of the peculiarly deep divisions among commentators over takeover policy. For the most part, these division are about market behavior rather than competing norms or inter-

basis for conviction. Rational market theory, which underlies the misinvestment hypothesis, remains, in Robert Merton's words, a "hot issue" whose resolution is likely to structure the research agenda of corporate finance for some time. See R. Merton, *supra* note 20, at 37. If forced to speculate further, I would guess that both the market and the misinvestment hypotheses may contribute to understanding discounts.

161. The conflict between implicit contract and better management hypotheses is another example. See *supra* note 9.

ests. In the case of share discounts, the divisions are likely to be resolved eventually as more powerful evidence accumulates on the mechanisms of share pricing. But until they are resolved, different systemic frameworks confront lawmakers with a difficult challenge. Lawmakers, who lack vocational experience in what might be termed the exploratory acceptance of powerful models, must offer justifications for policy decisions today. The temptation to choose between explanatory frameworks is particularly insistent, moreover, because a single framework will often offer precisely the kind of rationale that legal rules require. Norms and interests can be cogently "balanced", but differing narratives of how markets might function are much harder to integrate within the context of a single prescriptive argument.¹⁶² Nevertheless, the analysis of share discounts suggests that a balancing approach, or at least a tolerance for ambiguity on the level of basic explanation, is precisely what is required. This, then, is also a plea to proceed slowly with legal innovations based on a single

162. The Williams Act itself is pervasively informed by interest-balancing. See *CTS Corp. v. Dynamics Corp. of America*, 107 S. Ct. 1637, 1645 (1987) (Williams Act strikes "a careful balance between the interests of offerors and target companies"). A more systematic approach to market behavior may change the form of balancing more than its fundamental wisdom.

account of acquisition gains, which in today's climate can only mean the legislative agenda of the critics of takeovers and the rationality of share prices.