

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Corporate Takeovers: Causes and Consequences

Volume Author/Editor: Alan J. Auerbach, ed.

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-03211-6

Volume URL: <http://www.nber.org/books/auer88-1>

Publication Date: 1988

Chapter Title: Breach of Trust in Hostile Takeovers

Chapter Author: Andrei Shleifer, Lawrence H. Summers

Chapter URL: <http://www.nber.org/chapters/c2052>

Chapter pages in book: (p. 33 - 68)

Breach of Trust in Hostile Takeovers

Andrei Shleifer and Lawrence H. Summers

2.1 Introduction

Corporate restructurings through hostile takeover, merger, or management buyout are wealth enhancing in the sense that the combined market value of the acquiring and the acquired companies usually rises. Many economists, notably Jensen (1984), have argued that the large premia received by corporate shareholders derive from the improved management and increased efficiency brought about by restructurings. These economists point to the increase in market value created by takeovers as evidence of the magnitude of these efficiency gains. And they suggest that the effect on market value serve as a touchstone for evaluating the social desirability of various tactics for launching and defending against hostile takeovers. Jensen (1984) captured this view by stating:

Positive stock price changes indicate a rise in the profitability of the merged companies. Furthermore, because evidence indicates it does not come from the acquisition of market power, this increased profitability must come from the company's improved productivity.

Many business leaders and some academic commentators (Drucker 1986; Lowenstein 1985; Law 1986) have dissented sharply from this

Andrei Shleifer is assistant professor of finance and business economics at the Graduate School of Business, University of Chicago, and a faculty research fellow at the National Bureau of Economic Research. Lawrence H. Summers is professor of economics at Harvard University and a research associate of the NBER.

The authors are indebted to Oliver Hart, Benjamin Hermalin, James Hines, Barry Nalebuff, Robert W. Vishny, Oliver E. Williamson, and especially Bengt Holmstrom and Michael C. Jensen for helpful comments, and to the Seaver Institute for financial support. Their help does not constitute an endorsement of the views expressed in this paper.

view, arguing that takeovers create private value by capturing rents but create little or no social value. Their argument is that shareholder gains come from the exploitation of financial market misvaluations, from the use of tax benefits, and from rent expropriation from workers, suppliers, and other corporate stakeholders. The dissenters suggest that the disruption costs of at least some hostile takeovers may well exceed their social benefits.

This chapter examines theoretically and empirically the elements of truth in the claims that improved management and redistributed wealth are the sources of takeover premia. We show how hostile takeovers can be privately beneficial and take place even when they are not socially desirable. Our argument does not invoke tax, financial markets, or monopoly power considerations.

Instead, we start with the insight of Coase (1937) and Fama and Jensen (1983) that corporations represent a nexus of contracts, some implicit, between shareholders and stakeholders. As argued by Williamson (1985), many institutions are designed to minimize the problems associated with opportunistic behavior where contracts are implicit. We argue that hostile takeovers facilitate opportunistic behavior at the expense of stakeholders. In this way hostile takeovers enable shareholders to transfer wealth from stakeholders to themselves more so than to create wealth. The available empirical evidence suggests that the redistributions associated with takeovers can be large and that perhaps some inefficiencies result as well. It is then incorrect to gauge the efficiency gains from takeovers by looking at event study measures of increases in shareholder wealth.

The chapter is organized as follows. Section 2.2 distinguishes between the value-creating and value-redistributing effects of hostile takeovers and argues that the latter are likely to be of dominant importance. The succeeding three sections treat three questions central to the argument that takeover gains come largely from breaching implicit contracts. First, what is the value to shareholders of being able to enter into implicit contracts with stakeholders? Second, how does trust support these implicit contracts? Third, how can hostile takeovers breach this trust and thus enable shareholders to realize the gains from default on stakeholder claims? Having described the role of breach of trust and wealth redistributions in hostile takeovers, we turn to a more systematic examination of their welfare properties in section 2.6. Section 2.7 then examines some empirical evidence shedding light on this theory of takeovers, and section 2.8 presents our conclusions.

2.2 Value Creation and Value Redistribution

Consider three scenarios. In scenario A, T. Boone Pickens takes over Plateau Petroleum and immediately lays off 10,000 workers, who

immediately find work elsewhere at the same wage. Pickens also stops purchasing from numerous suppliers, who find that they can sell their output without any price reduction to other customers. The stock of Plateau Petroleum rises by 25 percent.

In scenario B Frank Lorenzo takes over Direction Airlines and immediately stares down the union so that the wages of the existing workers are reduced by 30 percent and 10 percent of the work force is laid off and unable to find subsequent employment at more than 50 percent of their previous wage. Lorenzo does not change the airline's route structure or flight frequency. The stock of Direction Airlines rises by 25 percent.

In scenario C Carl Icahn takes over USZ. He closes down the corporate headquarters and lays off thousands of highly paid, senior employees, who had previously been promised lifetime employment by the now-displaced managers. Icahn also shuts down factories that dominate the economies of several small towns. As a consequence numerous local stores, restaurants, and bars go bankrupt. The stock of USZ goes up by 25 percent.

All three takeovers yield equal private benefits to the shareholders of the target firms. Yet their social consequences are very different. In scenario A society is better off because resources are diverted from less productive to more productive uses. The increased value of Plateau Petroleum approximately reflects the value of this gain. In Scenario B society is about equally well off. The gains to Direction shareholders are approximately offset by the losses to the human wealth of Direction employees. The redistribution is probably antiegalitarian. On the other hand, it may ultimately lead to advantages for customers of the airline. In Scenario C society is worse off. The gains to USZ shareholders are offset by the losses incurred by the laid-off employees and by the firms with immobile capital whose viability depended on the factories' remaining open. And other firms find that once their workers see what happened at USZ, they become less loyal and require higher wages to compensate them for a reduction in their perceived security. These firms also have a harder time inducing their suppliers to make fixed investments on their behalf.

These three examples make it clear that increases in share values in hostile takeovers in no way measure or demonstrate their social benefits. Scenario A is the only one in which share price increases capture the elimination of waste and the gains in social welfare. In contrast, shareholder gains in scenarios B and C to a large extent come from losses of the value of employees' human capital. Even if some efficiency is realized from wages' coming more into line with marginal products, the efficiency is only a second order effect relative to the transfer from employees to shareholders. Scenario C has additional external effects of the acquisition which, while not resulting in gains to the acquirer,

should enter the social calculation. The claim that the 25 percent takeover premium in scenarios B and C measures social gains is simply incorrect.

In the remainder of the chapter we develop issues raised by scenarios B and C. Why are there implicit contracts it pays to breach? Why are raiders willing but incumbents unwilling to breach implicit contracts? What are the transfers accompanying such a breach? What are the social costs of the breach of implicit contracts? Before taking up these questions, however, we must stress an a priori consideration suggesting that scenarios B and C have much more to do with observed takeover premia than does scenario A.

Consider a rather stylized firm that has a capital stock worth \$100, hires 14 workers at \$5 a year, purchases \$20 worth of materials, and has sales of \$100 a year. Its profits are \$10 a year and its cost of capital is .10, and so its market value will be \$100. The ratios of market value, earnings, and payroll are roughly accurate as representations of typical firms in the U.S. economy. Imagine that the firm is in steady state. Suppose the firm, because of an excess of free cash flow, starts to invest excessively rather than keeping its capital stock constant, to the point that it invests half its profits in projects with a present value of .5. If the market expects this practice to continue indefinitely, the firm's value will fall by 25 percent. Eliminating this rather disastrous policy of excessive reinvestment in terrible projects could presumably produce a takeover gain of about 25 percent.

Now suppose that the firm invests rationally but, because of agency problems involving management's greater loyalty to the employees than to the shareholders, overpays the work force by 5 percent. To put this figure in perspective, note that unions typically raise labor costs by about 15 percent and that firms in the same industry in the same city typically pay wages to workers in the same detailed occupational category that differ by 50 percent or more (Krueger and Summers 1987). This overpayment to labor, if expected to endure, will reduce profits by \$3.50 a year, leading to a reduction in market value of 35 percent. To the extent that the cash flows obtainable by cutting wages are safer than the firm's profit stream, this figure is an underestimate.

The point of these examples is simple. Since firms' labor costs far exceed their profits and since even poor capital investments yield some returns, very small differences in firms' success in extracting rents from workers and other corporate stakeholders are likely to be much more important in determining market value than the differences in corporate waste associated with differences in firms' volume of reinvestment. An intermediate case is provided by changes in the level of employment. Here the reduction in payroll is likely to be offset by some loss of product, so that it is more difficult to raise value by

increasing efficiency in this way. Moreover, some rent extraction is involved since the appropriate opportunity cost for laid-off labor is likely to be less than its wage.

These considerations suggest that takeovers that limit managerial discretion increase the acquired firm's market value primarily by redistributing wealth from corporate stakeholders to share owners. To this extent, the existence and magnitude of takeover premia is not probative regarding the social costs and benefits of takeovers. Rather, the social valuation of hostile takeovers must turn on the impact of these redistributions on economic efficiency, which will obviously vary from case to case.

In this chapter we focus on one particular efficiency aspect of hostile takeovers that captures the concerns of many observers, namely, their impact on the ability of firms to contract efficiently. Our motivation is twofold. First, we show that the arguments of those who see hostile takeovers as destructions of valuable "corporate cultures" are coherent. Second, and much more tentatively, we suggest that the reputational externalities associated with hostile takeovers may in fact have extremely serious allocative consequences.

2.3 The Value of Implicit Contracts

A corporation is a nexus of long-term contracts between shareholders and stakeholders. Because the future contingencies are hard to describe, complete contracting is costly. As a result, many of these contracts are implicit, and the corporation must be trusted to deliver on the implicit contracts even without enforcement by courts. To the extent that long-term contracts reduce costs, such trustworthiness is a valuable asset of the corporation. Shareholders own this asset and are therefore able to hire stakeholders using implicit long-term contracts.

The principal reason why long-term contracts between shareholders and stakeholders are needed is to promote relationship-specific capital investments by the stakeholders (Williamson 1985). An employee will spend time and effort to learn how to do his job well only if he knows that his increased productivity will be subsequently rewarded. A subcontractor exploring for oil will buy site-specific new equipment only if he believes that the contracting oil firm will not try to squeeze his profits once he sinks the cost. A sales representative will service past customers only if she is assured she will continue to benefit from their loyalty. In these and other cases it is important to the shareholders that the stakeholders do a good job, but shareholders may be unable to describe what specific actions this calls for, let alone to contract for them.

The necessary arrangement to ensure appropriate investment by stakeholders is a long-term contract, which allows them to collect some of the rewards of doing good work over time.¹ The expense of writing a complete contingent contract ensures that these long-term contracts are implicit. Examples of such contracts are hiring an oil exploration company for the long haul, so that it acquires the equipment best suited for the long-term customer; lifetime employment for workers who then learn how to do the job efficiently; and surrender of customer lists to sales representatives who can then profit from repeated purchases (Grossman and Hart 1986).

Even when no capital investments are required, long-term contracts can be used to elicit effort (Lazear 1979) or risk sharing (Harris and Holmstrom 1982) on the part of the contractor. Although these long-term contracts are usually thought of as covering managers or employees, they also commonly apply to customers and suppliers. The contracts are beneficial both to stakeholders and to shareholders, as they split the *ex ante* gains from trade. Shareholders in particular benefit because no easy alternative arrangements would ensure that stakeholders do a good job.

2.4 The Importance of Trust

Although both shareholders and stakeholders benefit *ex ante* from implicit long-term contracts, *ex post* it might pay shareholders to renege. For example, it will pay shareholders to fire old workers whose wage exceeds their marginal product in a contract that, for incentive reasons, underpaid them when they were young. Or shareholders might profit from getting rid of workers whom they insured against uncertain ability and who turned out to be inept. Or shareholders might gain from refusing to compensate a supplier for investing in the buyer-specific plant, after this plant is built. Or an insurance company can repossess its sales representative's customer list. In all these cases implicit contracts specify actions that *ex post* reduce the firm's value, even though agreeing to these actions is *ex ante* value maximizing. Breach of contract can therefore raise shareholder wealth, and the more so the greater is the burden of fulfilling past implicit contracts. Conversely, the value of workers' human capital or of suppliers' relationship-specific capital stock suffers a loss.

To take advantage of implicit contracts, shareholders must be trusted by potential stakeholders. Otherwise, stakeholders would expect breach whenever it raises the firm's value and would never enter into implicit contracts. To convince stakeholders that implicit contracts are good, shareholders must be trusted not to breach contracts even when it is value maximizing to do so.

A standard solution to the problem of how implicit contracts are maintained is the theory of rational reputation formation, described most notably by Kreps (1984). In this theory managers adhere to implicit contracts because their adherence enables them to develop a reputation for trustworthiness, and thus to benefit from future implicit contracts. If violating an implicit contract today would make the managers untrustworthy in the future, they will uphold the contract as long as the option of entering into future contracts is valuable enough. Conversely, if it is not important for the managers to be trusted in the future, that is, if a reputation is not valuable, they will violate the implicit contract. Formally, a rational reputation is modeled as a small probability that the manager is irrationally honest, sustained by honest behavior on the part of the manager.

The position that the sole reason to trust a manager (or anyone else for that matter) is his reputation is not plausible. People commonly trust other people even when no long-term reputations are at stake. Most people do not steal not only because they fear punishment, but because they are simply honest. Those who leave their cars unlocked do so relying more on other people's integrity than on police powers. Waiters rely on their expectation that most people tip in restaurants even when they expect never to come back. In fact, evidence shows that travellers' tips are no smaller than those of patrons (Kahneman, Knetch, and Thaler 1986). Even more striking is the fact that people believe a garage mechanic is as likely to cheat a tourist as a regular customer, thus defying the importance of reputation (Kahneman, Knetch, and Thaler 1986).

As do the rest of us, managers often fail to take advantage of others they deal with simply because it would violate an implicit trust. One example in which such trust appears to us more germane to managerial behavior than pursuit of a rational reputation is pensions. First, a large part of the retirees' benefits often takes the form of medical and insurance benefits that are not explicitly contracted for and are not protected by the Employee Retirement Income Security Act (ERISA; Congressional Information Service 1985). Pensioners obviously count on the employer to provide them with these benefits without explicit contracts. In the case of pension benefits themselves, most defined benefit pension plans raised the payments to their beneficiaries after the inflation of the late 1970s even though they were *not* under contract to do so (Allen, Clark, and Sumner 1984).² Moreover, the stock market recognizes that such increases are forthcoming and does not regard excess pension fund assets to be the property of shareholders. When firms remove excess assets from their pension funds, the market greets the news with a share price increase (Alderson and Chen 1986). The market expects that managers do what employees trust them to do.

To dispel the fear of breach on the part of stakeholders, shareholders find it value maximizing to *seek out or train* individuals who are capable of commitment to stakeholders, *elevate* them to management, and *entrench* them. To such managers, stakeholder claims, once agreed to, are prior to shareholder claims. Even when a rational reputation is not of high enough value to shareholders to uphold the implicit contracts with stakeholders, as would be the case if the company suffered a large permanent decline in demand, trustworthy managers will still respect stakeholder claims. From the ex ante viewpoint, such dedication to stakeholders might be a value-maximizing managerial *attribute* (not choice!). In a world without takeovers, potential stakeholders counting on such managers to respect their claims will enter into contracts with the firm.

How, then, can shareholders appoint as managers individuals whom stakeholders can trust? It is probably most likely that prospective managers are trained or brought up to be committed to stakeholders. In a family enterprise, for example, offspring could be raised to believe in the company's paternalism toward all the parties involved in its operation. Alternatively, a person who spends 20 or 30 years with a company before becoming a CEO will have spent all that time being helped by the stakeholders in his ascent, and he therefore becomes committed to them. These are examples in which managers pass through a "loyalty filter," using Akerlof's (1983) phrase, before reaching the top. Having done so, they find stakeholder welfare has now entered their preferences, thus making them credible upholders of implicit contracts.³ Whatever the exact mechanism, it is essential to see that shareholders *deliberately choose* as managers individuals for whom value maximization is subordinate to satisfaction of stakeholder claims, and then surrender to them control over the firm's contracts.

This characterization of managers has an interesting connection with Kreps's (1984) theory of rational reputation. In that theory the world is inhabited by a minor fraction of randomly located trustworthy individuals, and stakeholders start out with the view that there is a small chance that the manager of the firm is of this irrational type. This small chance nonetheless suffices to entice the stakeholders to enter into the implicit contract. By mimicking the behavior of the irrationally trustworthy individual, the rational manager maintains the stakeholders' anticipation that he might be trustworthy, thereby ensuring their agreement to the implicit contract. In contrast to this theory our argument says that shareholders actually locate (or train) the truly trustworthy people and install them as managers because it is ex ante value maximizing to do so.

It is natural to ask why shareholders appoint these truly trustworthy people, rather than the deceptive ones who just pretend to be trustworthy (as in Kreps 1984), but then maximize value when push comes

to shove. The primary answer is that trustworthiness is correlated with other personal characteristics and actions, ones that shareholders and stakeholders can learn about. With the wealth of information at hand, genuinely trustworthy people can be selected. Managers who are trusted *per se* can enter into more efficient contracts than those who must rely on their reputation. Alternatively, Akerlof (1983) argues that it is so costly to learn to be deceptive that one might as well not be. Lastly, CEOs by the time they come to power have a long public record of conduct *vis-à-vis* commitments. There are no lifetime moles.

2.5 Breach of Trust in Hostile Takeovers

In some circumstances upholding the implicit contracts with stakeholders becomes a liability to shareholders. The incumbent managers are nonetheless committed to upholding stakeholder claims. In these cases ousting the managers is a prerequisite to realizing the gains from the breach. This is precisely what hostile takeovers can accomplish. As the incumbent managers are removed after the takeover, control reverts to the bidder, who is not committed to upholding the implicit contracts with stakeholders. Shareholders can then renege on the contracts and expropriate rents from the stakeholders. The resulting wealth gains show up as the takeover premia. Hostile takeovers thus enable shareholders to redistribute wealth from stakeholders to themselves.

Managers committed to upholding stakeholder claims will not concede to the redistribution. They will resist it, even though the shareholders at this point will withdraw their support from the managers to realize the *ex post* gain.⁴ Not surprisingly, then, takeovers that transfer wealth from stakeholders to shareholders must be hostile.

The importance of transfers in justifying the takeover premium does not imply that breach of implicit contracts is always the actual takeover motive. Breach can be the motive, as for example is the case in some takeovers explicitly aiming to cut wages. At other times the acquisition is motivated by the overinvestment or other free cash flows of the targeted firm. Even in these takeovers much of the gain must come from reducing the wealth of stakeholders, who did not count on changes in operations when agreeing to work for the firm. Take, for example, a railroad whose management invests in upgrading and extending the tracks when this investment has a negative net present value. The management's goal is to provide jobs for railroad employees and other stakeholders who count on continuation of the business. When a hostile acquirer cuts off these investments, the shareholders gain. To a large extent, however, the gains come at the expense of the employees' employment and wage losses.

For breach to be an important source of gains, hostile takeovers must come as a surprise to stakeholders, who entered into implicit contracts expecting the firm to be run by trustworthy managers. For if the stakeholders anticipate a hostile takeover, they will realize the trustworthiness of the incumbent managers is worthless, since they will be duly removed when shareholder interest so demands. Implicit contracts based on trust are feasible only insofar as the managers upholding them are entrenched enough to retain their jobs in the face of a hostile threat.

The elements of the story now fall into place. In a world without takeovers, shareholders hire or train trustworthy managers, who on their behalf enter into implicit contracts with the stakeholders. Subsequently, some or many of these contracts become a liability to shareholders, who cannot default on them without replacing the incumbent managers. Managers are hard to replace internally because to a large extent they control the board of directors, their own compensation scheme, and the proxy voting mechanism (Shleifer and Vishny 1988b). This failure of internal controls may in fact be in shareholders' ex ante interest, since it may be the only way to assure commitment by shareholders to stakeholders in the absence of takeovers.

Hostile takeovers are external means of removing managers who uphold stakeholder claims. Takeovers then allow shareholders to appropriate stakeholders' ex post rents in the implicit contracts. The gains are split between the shareholders of the acquired and the acquiring firms. At least in part, therefore, the gains are wealth redistributing and not wealth creating.

2.6 Welfare Analysis

As described in section 2.2, contract breach accompanying takeovers allows for a redistribution of rents from stakeholders to shareholders. To some extent takeovers in this case are rent-seeking and not value-creating exercises, with investment bankers' fees and management time representing wasted resources. If this is the scenario capturing reality, then shareholder wealth gains in takeovers are not an appropriate measure of value gains. Even if the combined value of the acquired and the acquiring firms rises as a result of a merger, at least part of value increase is offset by stakeholder wealth losses.

Thus, even if there are some efficiency gains from a takeover, they may pale by comparison with the transfers of wealth. Consider the case of disciplinary takeovers, in which target managers who are failing to run their firm to maximize its value are forcibly removed. Following an acquisition of this type, the buyer usually cuts wages, lays off many employees, raises leverage, eliminates executive perquisites, and in

general significantly tightens operations. Because these changes increase profitability, hostile takeovers designed to eliminate a firm's free cash flows are taken as paradigmatic cases of efficiency-improving transactions.

Although there probably are some efficiency gains in such takeovers, it is also the case that employees and suppliers lose a great deal of their previous rents with the firm. Much of the shareholder gains in this case are stakeholder losses. The argument is similar to that for eliminating monopoly in a market. Although there is an efficiency gain equal to the Harberger triangle, by far the biggest impact of going from monopoly to competition is a transfer of rents from profit owners to consumers. Just as it is inappropriate to measure the efficiency gains from eliminating monopoly by the trapezoid under the demand curve, it is incorrect to measure efficiency gains from removing incompetent managers by shareholder wealth gains. And just as it would be inappropriate to gauge the benefit of banning monopoly by the willingness of consumers to pay for the ban, it is wrong to measure efficiency gains from takeovers by share price increases on the announcement of the deal.

In some disciplinary takeovers the transfers from stakeholders can also lead to significant welfare losses that mediate against welfare gains. As we show below, the transfers can lead to *ex post* inefficient resource allocation if efficient contracting is impaired in the postbreach environment. In addition, by limiting the scope for contracting, takeovers can reduce *ex ante* welfare.

2.6.1 Ex Post Efficiency

So far we have shown only that the transfer component of a shareholder wealth increase should not be counted as value creating (scenario B) and that such transfers can be large relative to the total shareholder gain. Breach can in addition entail efficiency losses. In some cases, when the acquirer and the stakeholders renegotiate after the breach, they are unable to do so efficiently. As the following examples show, the magnitude of the efficiency losses depends on whether the conditions needed for the Coase theorem to hold obtain in the postbreach environment. If they do hold, breach is just a transfer; if they do not, it entails some *ex post* inefficiencies.

Consider, first, an example of asymmetric information between the buyer and the employees of the acquired firm. To be specific, suppose Carl Icahn takes over Trans World Airlines and breaches the agreement that its flight attendants be paid \$15 per hour. Let the marginal product of these experienced flight attendants, who have made an investment in their TWA jobs, be \$10, but let this be known to Icahn only. Let

these flight attendants' opportunity wage at the outside be \$5, which is also the cost and the marginal product of their replacements at TWA. As long as Icahn pays the existing flight attendants below \$10, he can make money. Unfortunately, the flight attendants do not know that their productivity is \$10, and they might insist on a higher wage. If no agreement is reached in this situation of asymmetric information, the flight attendants quit and go to work elsewhere at \$5, and gains from trade are not realized.

Note that the Icahn takeover has two implications. First, shareholders regain the extra \$5 they were overpaying flight attendants under the old regime, which is just a transfer. Second, however, because of asymmetric information in the *ex post* contracting environment, the takeover entailed a misallocation of resources as the TWA-specific capital of flight attendants went to waste. The second problem is not unique to takeovers; it occurs in many environments with asymmetric information. But takeovers can exacerbate this inefficiency by moving negotiations into the environment of less trust and greater informational asymmetries.

The second reason for the failure of the Coase theorem that can lead to the inefficiency in the *ex post* contracting environment is the free rider problem. Suppose that in Bartersville, Oklahoma, the residents earn some rents from the presence of Phillips Petroleum in their town, perhaps because it distributes charity there or indirectly subsidizes some businesses. If Boone Pickens takes Phillips over, he will recapture those rents, perhaps by moving out. It is possible that Bartersville residents would choose to pay him to stay, but doing so would require a collective action they might not be able to mount. This again leads to an *ex post* efficiency loss in addition to a transfer from Bartersville residents—who are Phillips stakeholders—to the shareholders.

Both of these examples are manifestations of *ex post* inefficiencies accompanying takeovers. The source of these inefficiencies is the failure of the Coase theorem in the *ex post* environment, that is, gains from trade are not realized. Although takeovers are not responsible for this failure of the Coase theorem, they are responsible for creating the environment in which it is likely to fail.

The implications of these welfare losses for share price behavior are ambiguous, since the price depends on how much is lost by shareholders and how much by stakeholders. What is unambiguous, however, is that, in general, these welfare losses will not be taken into account by looking at the change in value of the acquirer and the target. We already see, therefore, two sources of miscalculation: Transfers from stakeholders cannot be counted as value creating; and the combined value changes do not reflect the part of efficiency losses not borne by shareholders.

2.6.2 Ex Ante Efficiency

The discussion has so far been concerned solely with the ex post consequences of unanticipated takeovers. To this end, we assumed that people contracted as if takeovers never took place, and then we traced the distributional and efficiency consequences of breach. In fact, it seems quite plausible that hostile takeovers and the attendant opportunities for breach of implicit contracts came as a surprise to many U.S. workers and managers.

Although the ex post analysis is the one that sheds light on the interpretation of event studies, it leaves open the question of contracting in the environment where takeovers do occur. This is the question of the ex ante welfare implications of breach of trust through takeovers, which we take up next.

If potential stakeholders believe that their contracts will surely be violated whenever they collect more from the firm than they put in, they will not agree to implicit contracts. Potential suppliers will not invest in relationship-specific capital, the young will shirk if they expect no raise in the future, and firms will be unable to reduce labor costs by offering insurance against uncertain ability to their workers. Even if breach via takeover is not a certainty but only a possibility, the opportunities for long-term contracting will be limited. To the extent that realizing gains from trade requires such contracting, these gains will remain unrealized and ex ante welfare will be reduced.

A common example of a postacquisition change is the consolidation of headquarters, which usually results in dismissal of a number of highly paid employees of the acquired firm. This change can be viewed as a reduction in the acquired firm's corporate slack, since large corporate headquarters represent on-the-job consumption of top executives. But the closing of headquarters can also be viewed as a breach of contract with the long-term employees who work there, even when those employees do not produce much. An idle employee at corporate headquarters could be there to get his career-end-reward for previous service to the company or his consolation payment for having lost the tournament for the top job. In either case the employee is costing the company more than he is contributing at the moment, and therefore his dismissal is a gain to the shareholders. It nonetheless might have been in the shareholders' interest to use an implicit long-term contract to attract this employee ex ante and to entice him to work hard or to participate in the tournament. In line with this interpretation, those fired after an acquisition often talk about broken promises (Owen 1986) and claim they will never again trust a large corporation.

These considerations raise the important issue of the scope of fear of breach. That is, if some firms are taken over, how severely will this

limit contracting opportunities at other firms? The spread of fear that implicit contracts are worthless is an example of reputational externalities (Zeckhauser 1986) in that it concerns the extent to which events in some firms affect expectations in others. The larger the fear of takeovers spreading through the economy, the more severe are the limitations on contracting, and the larger is the welfare loss.

As we said at the start of this section, the ability to enter into implicit contracts and to be trusted to abide by them may be one of the most valuable assets owned by shareholders. Takeovers may substantially reduce the value of these assets. In the popular literature this phenomenon has been called the decline of corporate loyalty, which is widely cited as a cost to firms. This cost can show up in explicit costly contracts with stakeholders (such as labor protection provisions, or LPPs), or in the need to pay them more now in return for their accepting uncertainty about future payments, or simply as forgone profitable trade. Whatever form this cost takes, it should *ultimately* show in the declining value of corporate equity.

In summary, this section attempted to describe how shareholders can benefit in takeovers by defaulting on their implicit obligations to the stakeholders. In the situation of incomplete contracts or incomplete markets, it is incorrect to equate changes in shareholder wealth with value created in takeovers. Even taking ex post efficiency as the welfare index, a change in shareholders' wealth includes redistributions from stakeholders and ignores efficiency losses that are not paid for by the shareholders. Looking at shareholder wealth also completely ignores the ex ante welfare costs of ex post opportunism, which could be very large.⁵

2.7 Empirical Evidence

In evaluating the importance of transfers from stakeholders to shareholders, we always compare them to efficiency gains, whose significance has been emphasized in much of the literature (for example, Jensen and Ruback 1983). We proceed in four steps. First, we show that the presence of large redistributions is consistent with established statistical generalizations about takeovers. Second, we study a special case—Carl Icahn's takeover of TWA—to determine how much of the takeover premium can be accounted for by the expropriation of rents from corporate stakeholders. Third, we look at the effects of a takeover of Youngstown Sheet and Tube on the welfare of stakeholders whose losses were not captured by the shareholders, namely, the members of the local community. Last, we present some anecdotal evidence on the consequences of takeovers for employee morale.

2.7.1 Basic Facts

In this section we note that the stylized facts of takeovers are consistent both with the prevalence of efficiency gains and with the prevalence of transfers of wealth. In reviewing the evidence, we return to calling the first case scenario A and the second scenario B or C.

Our theory clearly explains the takeover premia since some portion of stakeholder wealth is transferred to shareholders. More subtly, it explains why most of the wealth gains accrue to the acquired firm's shareholders. If it takes little skill to break implicit contracts, the market for corporate control is essentially a common values auction. In such a competitive auction all the gains accrue to the seller, namely, the target's shareholders.

Managers would resist takeovers both if the gains come purely from eliminating their incompetence, as in scenario A, and if they come from transfers from stakeholders, as in scenarios B and C. In the former case poor managers are reluctant to be exposed and lose control. In the case of breach managers are reluctant to let stakeholders' claims be ignored. This is confirmed especially by the common incidence of managers negotiating severance provisions for employees even after they know that the takeover will occur (Commons 1985). The existence of golden parachutes suggests that the managers do not forget themselves, as stakeholders, either.

Patterns of reorganization following a takeover can also be understood using either scenario A or scenarios B and C. Either efficient cost cutting or breach can justify employee dismissals, plant closings, project curtailment, divestments, and subcontractor removals. To see whether the parties that lose association with the acquired firm suffer wealth losses, one must trace their subsequent employment. This is necessary, but not sufficient, to establish breach, and it is hard to do empirically. Otherwise such separations could be efficient, as in scenario A (Jensen 1984).

One striking fact militating in favor of the importance of wealth transfers as opposed to pure efficiency gains is that a significant fraction of hostile acquisitions are initiated and executed by only a few raiders. It is hard to believe that Carl Icahn has a comparative advantage in running simultaneously a railcar leasing company (ACF), an airline (TWA) and a textile mill (Dan River). It is more plausible that his comparative advantage is tough bargaining and a willingness to transfer value away from those who expect to have it. In fact, those who describe him (including he himself) point to this as his special skill. The industrial diversity of many raiders' holdings suggests that their particular skill is value redistribution rather than value creation.⁶ It is not

at all surprising, in this context, that many of these raiders have hardly any employees of their own.

It is important to emphasize at this point that our discussion of efficiency gains and of transfers concerns *hostile* takeovers. As stressed by Mørck, Shleifer, and Vishny in this volume, these are disciplinary acquisitions designed to change the operations of the firm. They should be contrasted with synergistic acquisitions, which are usually friendly and motivated by market power, diversification, or tax considerations. Mørck, Shleifer, and Vishny show that the two types of deals are targeted at very different companies and hence should not be treated as examples of the same economic process.

The study by Brown and Medoff in this volume reveals how important this distinction can be. The authors look at a sample of several hundred acquisitions of small Michigan companies and find that employment and wages rise after the sale of a firm. Because the companies in their sample are so small, it seems plain that the sample is one of friendly mergers, ones that presumably serve as a means of expansion by the buyer. In fact, we doubt that they have any hostile deals in their sample at all. Our arguments for breach do not then apply to their results and vice versa. In this and other instances it would be a serious conceptual mistake to use the data on friendly acquisitions to interpret theories of hostile takeovers.

A significant problem for virtually any theory of hostile takeovers that we know is posed by acquisitions by "white knights." These are companies that top the hostile offer and merge with the target in a friendly combination, often retaining the management. How can white knights pay more and at the same time forgo management improvement or contract breach? We suspect that white knights are not as friendly as they appear. For example, after a "friendly" rescue of CBS by Lawrence Tisch (who did not even buy the company to gain control), he dismissed hundreds of employees, sold several divisions, and instituted many cost-containment reforms. Even white knights have a shade of grey.

2.7.2 Case Study: Carl Icahn and TWA

Carl Icahn's takeover of TWA in 1985 has attracted enough attention and commentary to provide us with sufficient data to assess stakeholder losses. In particular, Icahn's gain of control was accompanied by changes in compensation for members of the three major unions at TWA. By looking at changes in the wages and benefits of TWA's workers, we can gauge stakeholder losses. At the same time, we acknowledge from the start that the case of TWA does not strictly fit our model. Wages for union members at TWA were determined under governmental regulation. The pre-Icahn management had not been successful (or

competent) in renegotiating wages; for a variety of reasons TWA had bad labor relations. It is, therefore, not the case that TWA management resisted the acquisition to avoid a breach of contract. All the evidence suggests that the managers wanted to keep their jobs and resisted acquisition for that reason. Nonetheless, the main observation of this paper—that takeover premia are often paid for by stakeholders—is much more general than the particular model of managerial behavior we develop.

Before Icahn began investing in TWA on the open market, its 33 million shares traded at \$8. Icahn eventually bought 40 percent of the airline through open market purchases and the rest through a (hotly contested) tender offer. Although his cost per share on the open market varied from \$8 to \$24, the offer was completed at \$24 per share. At most, then, Icahn's premium was \$500 million. There is evidence, however, that he bought 20 percent of the stock at an average price of \$12 and another 20 percent at the average price of \$16 to \$18. Icahn's overall average price therefore was \$20, putting the premium in the range between \$300 million and \$400 million. This figure is consistent with estimates made in the popular press (*Fortune*, *Business Week*, "Takeover").

TWA's three major unions represented its pilots, flight attendants, and machinists. Contracts signed between the pilots and Icahn basically prohibited significant trimming down of TWA operations and, in particular, pilot layoffs or significant airplane sales. In fact, leases on three Boeing 747s were not renewed, and one was sold. There were also some, though not major, layoffs at TWA's St. Louis headquarters. Most of the action by far came from wage reductions for the "production" workers, calculated below.

Before Icahn took control TWA paid its 3,000 pilots an average salary of \$90,000 per year, including benefits. The agreement with Icahn cut this around 30 percent, for an annual savings of approximately \$100 million (*Fortune*, "Takeover"). The company employed about 9,000 machinists at an average cost of \$38,000. They agreed to a 15 percent cut, saving TWA around \$50 million per year. The story with flight attendants is more complicated, since no agreement was reached. On average, a TWA flight attendant made \$35,000 a year. Some of the attendants (around 2,500 out of 6,000 within 3 months) were replaced by rookies paid an average of \$18,000 per year. This is essentially a transfer of wealth from the existing flight attendants, who could presumably take entry-level jobs, to Icahn. In fact, some of them accepted wage cuts, and it appears that, over time, most who did not were replaced. Assuming conservatively that the average saving was \$10,000 per flight attendant, the total annual saving adds up to \$60 million. Since TWA's operating losses assured it a tax free status, these labor cost savings should be counted before tax.

This brief analysis indicates that the average annual transfer from TWA's unionized employees amounted to at least \$200 million under Icahn.⁷ Since TWA was a very risky investment (and Icahn was not diversified), the appropriate discount rate for these savings could be as high as 25 percent. This yields a present value for the transfer of \$800 million. In return for these wage concessions, employees received a profit share and an ownership stake in TWA, which together amounted to about one-third of the company. Immediately after the takeover, market value of these shares was under \$200 million, which reduces the value of the transfer from unions to \$600 million. By these very conservative estimates, then, the transfer from members of the three unions to Icahn amounted to one and a half times the takeover premium.

It is hard to gauge the efficiency consequences of Icahn's acquisition. There appears to be a consensus that the previous TWA management was awful. If the airline went bankrupt, some of the valuable assets of TWA (such as its name and goodwill) might have lost value, which is a social cost. Moreover, TWA can probably make better investment decisions now than in the past, since its labor costs more accurately reflect shadow prices. On the other hand, some inefficiencies might have resulted from the replacement of well-trained flight attendants by rookies. In addition, large time costs of Icahn and others as well as large transaction costs were incurred. Overall, we suspect efficiency has been gained. This is not the main point, though. The point is that at least one and a half times the premium can be explained by transfers, which in this case were an *explicit* part of the justification for the acquisition. Shareholders gained primarily because stakeholders lost.

2.7.3 Case Study: Youngstown Sheet and Tube

Not all of the stakeholder losses in hostile takeovers are gains to shareholders. Losses in stakeholder wealth can also lead to numerous externalities and losses by third parties that are not captured by shareholders. Consider, for example, a company town in which spending by the employees of the company is a large source of demand in local stores. Those stores might simply be unable to cover their fixed costs if employees of the company are laid off and dramatically reduce their spending. The specific investments these merchants have made in their businesses yield no payoff in this case, and as a result potentially productive capital becomes worthless. This is a case of a social loss and not of a redistribution, since merchants' losses are not captured by shareholders.

An example of community distress following a takeover is the case of the acquisition of Youngstown Sheet and Tube (YST) by Lykes Steamship Company in 1970, and the subsequent acquisition of the latter by LTV Steel in 1979. Between 1977 and 1979 over 6,000 YST

employees were laid off. One result of those layoffs, reported by the Youngstown Area Chamber of Commerce (1983), has been a second tier increase in unemployment from businesses' losing their sales to YST employees. Perhaps even more telling are statistics on bankruptcies in Youngstown, which rose from 769 in 1977 to 1,000 in 1979 and 1,948 in 1981. Although YST was only one of two or three Youngstown area steel mills laying off employees, the effect of the layoffs on other businesses in the area has been large and protracted. Interestingly, when by 1982 other firms had begun moving into the Youngstown area and hiring the unemployed local labor, they did so at much lower wages, contrary to scenario A (Youngstown Area Chamber of Commerce 1983).

Perhaps the most telling evidence on the social loss borne by the Youngstown community after the layoffs at YST and other steel mills comes from sale prices of used homes (U.S. Department of Housing and Urban Development 1968-85). Between 1968 and 1980 sale prices of used homes in the Youngstown-Warren area rose at roughly the same rate as those in the rest of Ohio and the nation. In 1980 the median sale price of a used home was \$43,324 in the United States as a whole, \$37,604 in Ohio, and \$32,400 in the Youngstown-Warren area. In 1981 when the effects of the layoffs really hit Youngstown, the median sale price of a used home rose slightly in the United States to \$45,676, declined somewhat to \$35,168 in Ohio, and plummeted to \$25,000 in the Youngstown-Warren area. The last number reflects a decline of 23 percent in a single year! Arguably, that decline might reflect composition effects if the selling steelworkers owned less than average houses. It should also be counterbalanced by house price increases in areas to which the departing Youngstown residents might move and buy houses.

With these caveats in mind, we note that the Youngstown-Warren area had 148,000 single-family housing units at that time, and hence if the median sold house is representative of the housing stock as a whole, the housing stock could have declined in value by over \$1 billion. These wealth losses are not transfers to shareholders and therefore, modulo the above caveats, represent the social costs of the layoffs, some of which resulted from the takeover.

It is quite possible that, from the point of view of steel production, the takeovers have increased the efficiency of YST operations. Nevertheless, it is obvious that the YST employees suffered substantial wealth losses, as in scenario B. Furthermore, the losses of wealth of other members of Youngstown community should also be counted in any social appraisal of the deals.

2.7.4 Reactions to Takeovers

We do not have information to verify the predictions of our theory for the ability of firms to contract *ex ante*. For to do this, we must

analyze a world in which people trust each other less, workers are not loyal to firms, and spot market transitions are more common than they are at this time. (One can try to think of other cultures, although the comparisons are in many ways suspect. Banfield and Banfield (1958) described a village in southern Italy where trust was absent, hardly any trade took place, especially intertemporally, and people voted for whichever party bribed them most and last, which led to alternating elections of communists and fascists. Nor surprisingly, the village was very poor.) We offer instead a brief survey of opinions expressed by employees of Trans Union Corporation subsequent to its merger with Pritzkers' Marmon group. The comments we present below are based on William M. Owen's privately printed *Autopsy of a Merger*, whose title assures us of the book's impartiality.

Many of the former employees of Trans Union complained that the company violated an implicit understanding that adequate job performance guaranteed continued employment. The virtually universal lesson that interviewees claimed to have learned from their takeover experience was never again to trust a large corporation. One employee remarked that previously he had believed that if he did a good job, he would be appreciated. Now he thinks, "You have to look out for yourself. You really can't hold any loyalty to a corporation." Another offered his view of long-term contracts: "To the average Joe, life in the business world can be compared to walking a tightrope across the Red Sea. It might break at any time, so don't get too comfortable." Many said their loyalty had been killed, and that they developed a more cynical and cautious view of corporate America. As a result, some reversed their prior belief that continued loyalty to a corporation would be rewarded.

What are the tangible results of this change of attitude? In the earlier discussion we suggested that contracting can eventually become more costly and that, in some cases, inferior outcomes can result. There is a bit of quotable evidence on each of these two points. One ex-employee of Trans Union was looking "for an employer where I can participate in ownership." Evidently, she sought equity because "employees got nothing out of the merger," and she wanted her contract to be *explicit*. Other people denied the feasibility of an employment relationship. Of the many who sought self-employment, one thought he could no longer have a sense of security without his own business. Less dramatically, another asked, "How can you go to another company now and give 100 percent of your effort?" While it is premature to interpret these comments as foreshadowing the decline of the corporation, they do suggest a fairly pervasive skepticism about what in the United States is the most common form of the employment contract.

To acknowledge the merits of the alternative hypothesis, we also quote an employee who was doubtless familiar with a working paper

by Jensen: "I think Trans Union was fat, dumb and happy and deserved to be acquired."

2.8 Concluding Comments

In this chapter we have stressed the role played by transfers of wealth in hostile takeovers. Breach of trust through corporate takeover enables shareholders to capture the ex post rents from contracts with stakeholders, such as suppliers and employees. Two points made in the foregoing analysis should be sharply distinguished.

First, transfers from stakeholders to shareholders could make for a large part of the takeover premium. Although redistributions from the parties to implicit contracts are important, other transfers are also potentially significant. Tax savings that accompany some takeovers can be viewed as redistributions from the government. At least for some transactions, such as leveraged buyouts, tax savings can account for up to 80 percent of the takeover premium (Kaplan 1987; also Shleifer and Vishny 1988a). If takeovers are motivated by stock market undervaluations of assets, these transactions are rent redistributions from the old shareholders to the buyer. Although evidence of the importance of such undervaluations is lacking, arguments that they are important are not (Drucker 1986). If, as appears to be the case, rent transfers form a significant part of the takeover gains, the combined share price change of the target and the buyer vastly overstates the efficiency gains from takeovers.

It is also argued above, though with much less empirical support, that rent-seeking takeovers may entail large efficiency losses in the long run. The breach of trust accompanying such deals might spread enough fear of further breach through the economy to either vastly complicate or even prevent profitable trade. Managers worried that their stakeholders' claims will not be respected engage in defensive tactics such as restructurings or leveraged buyouts, which themselves take away from the stakeholders. This reorganization of the corporation into more of a spot market system can be socially very costly. To gauge this cost, however, would require an understanding of how trust facilitates contracting, which at this moment we do not have.

Previous academic work has tended to maintain that hostile takeovers are accompanied by increases in efficiency, but it has rarely been successful in isolating the sources of such gains. Undoubtedly, efficiency gains might justify a large part of the takeover premium in some takeovers, such as those in the oil industry. Redistributions, in contrast, seem extremely important in the case of airlines. Unfortunately, to evaluate which of the two sources of gains is the more important, one needs to look at stakeholder losses, which are much harder to measure than shareholder gains.

One promising strategy for testing the role of wealth transfers is to look at cancellation of overfunded defined benefit pension plans, where horror stories abound. We have already mentioned that many benefits that retirees receive are not part of the formal pension contract protected by ERISA, and that even the actual pension benefits are to a large extent set by the company without compulsion. Looking at pension plans after hostile takeovers might be a fruitful way of measuring transfers from stakeholders.

Notes

1. Shareholders' ownership of relationship-specific assets could promote efficient investment in these assets to some extent. If ownership entitles shareholders to residual rights of control of relationship-specific assets, then in some cases where the contract is silent the right thing will be done (Grossman and Hart 1986). But limits of shareholder knowledge and limits of the firm bound the applicability of ownership.

2. This of course could be part of managers' trying to maintain a rational reputation for being "nice guys."

3. In a similar vein we can say that managers become "addicted" to stakeholders who form such an important part of their life (in contrast to constantly changing shareholders). For an illuminating discussion of how such addiction could be rational, see Becker and Murphy (forthcoming).

4. The reason for this is that shareholders are anonymous, and even if they were not, the free rider problem absolves individual shareholders from collective responsibility for the breach.

5. Arrow (1974) stressed the role of trust in the successful functioning of a market economy.

6. The most famous undiversified raider is T. Boone Pickens, who specializes in prompting hostile acquisitions of oil companies. It is interesting that the case for efficiency gains in takeovers is probably the most compelling in the oil industry, where an acquisition is often accompanied by cancellation of a wasteful exploration program.

7. Some estimates in newspapers of total cost decreases after Icahn's acquisition give \$600 million, a figure we cannot explain. In part, this includes an annual saving of \$100 million from lower fuel costs and probably \$50 million from eliminating four 747s. The point is that \$200 million is a very conservative lower bound on transfers from the union members.

References

- Akerlof, George A. 1983. Loyalty filters. *American Economic Review* 73 (March): 54-63.
- Alderson, Michael J., and K. C. Chen. 1986. Excess asset reversions and shareholder wealth. *Journal of Finance* 41 (March): 225-42.

- Allen, Steven G., Robert L. Clark, and Daniel A. Sumner. 1984. Post-retirement adjustments of pension benefits, NBER working paper 1364. Cambridge, Mass.: National Bureau of Economic Research.
- Arrow, Kenneth J. 1974. *The limits of organization*. New York: W. W. Norton.
- Banfield, Edward C., and L. F. Banfield, 1958. *Moral basis of a backward society*. New York: Free Press.
- Becker, Gary, and Kevin Murphy. Forthcoming. A theory of rational addiction. *Journal of Political Economy*.
- Brown, Charles, and James L. Medoff, 1988. The impact of firm acquisitions on labor. In this volume.
- Coase, Ronald L. 1937. The nature of the firm. *Economica* 4: 386-405.
- Commons, John L. 1985. *Tender offer*. Berkeley: University of California Press.
- Congressional Information Service. 1985. Employee benefits revisions following corporate mergers, H 341-38.1.
- Drucker, Peter F. 1986. Corporate takeovers—What is to be done? *The Public Interest* 82 (Winter): 3-24.
- Fama, E. F., and M. C. Jensen. 1983. Separation of ownership and control. *Journal of Law and Economics* 26 (June): 301-24.
- Grossman, S. J., and O. D. Hart. 1986. The costs and benefits of ownership: A theory of vertical and lateral integration. *Journal of Political Economy* 94 (August): 691-719.
- Harris, M., and B. Holmstrom. 1982. Theory of wage dynamics. *Review of Economic Studies* 49 (July): 315-33.
- Jensen, M. C. 1984. Takeovers: Folklore and science. *Harvard Business Review* (November-December): 109-21.
- Jensen, M. C., and R. S. Ruback. 1983. The market for corporate control: The scientific evidence. *Journal of Financial Economics* 11 (April): 5-50.
- Johnston, Moira. 1986. *Takeover*. New York: Arbor House.
- Kahneman, Daniel, Jack Knetch, and Richard Thaler. 1986. Fairness as a constraint on profit seeking. *American Economic Review* 76 (September): 728-41.
- Kaplan, Steven. 1987. *Management buyouts: Thoughts and evidence*, photocopy. Boston: Harvard University.
- Kreps, D. M. 1984. *Corporate culture and economic theory*, photocopy. Stanford: Graduate School of Business, Stanford University.
- Krueger, Alan, and Lawrence H. Summers. 1987. Interindustry wage differentials. *Econometrica*, forthcoming.
- Law, Warren A. 1986. A corporation is more than its stock. *Harvard Business Review* (May-June): 80-3.
- Lazear, Edward P. 1979. Why is there mandatory retirement? *Journal of Political Economy* 87 (December): 1261-84.
- Lowenstein, Louis. 1985. Management buyouts. *Columbia Law Review* 85 (May): 730-84.
- Mørck, Randall, Andrei Shleifer, and Robert W. Vishny. 1988. Characteristics of targets in hostile and friendly takeovers. In this volume.
- Owen, William M. 1986. *The autopsy of a merger*. Deerfield, Ill.: William M. Owen.
- Shleifer, Andrei, and Robert W. Vishny. 1988a. Management buyouts as a response to market pressure. In *Mergers and acquisitions*, ed. Alan J. Auerbach. Chicago: University of Chicago Press.
- _____. 1988b. Value maximization and the acquisition process. *Journal of Economic Perspectives*, forthcoming.

- U.S. Department of Housing and Urban Development. 1968–85. *Federal Housing Administration homes*, various volumes. Washington, D.C.: GPO.
- Williamson, Oliver E. 1985. *The institutions of American capitalism*. New York: Basic Books.
- Youngstown Area Chamber of Commerce. 1983. *Steel industry—Narrative of change*. Youngstown, Ohio: YACC.
- Zeckhauser, Richard. 1986. Reputational externalities. In *American society: Public and private responsibilities*, ed. Winthrop Knowlton and Richard Zeckhauser. Cambridge, Mass.: Ballinger.

Comment Bengt Holmstrom

Shleifer and Summers's general point—that changes in the combined market value of stock of an acquired and an acquiring firm can be a biased measure of the efficiency of a takeover—is certainly a valid and valuable one. A major restructuring of the corporation will inevitably imply transfers of wealth between shareholders and stakeholders, and these transfers should obviously be accounted for in assessing efficiency. The authors seem furthermore convinced that changes in stock market value often exaggerate the true benefits from takeovers, because stakeholders will lose some of their rents in the process. In principle (and not implausibly), the bias could go the other way. Stakeholders could benefit from a takeover by capturing some of the efficiency gains. For instance, wages could rise or jobs (with attached rents) could be saved in a takeover that improves the operation of the firm. Or the raider could gain privately by transferring some of the benefits to a company of his that is not directly involved with the merger. In either case these gains would not show up in a market value calculation. Which way market estimates bias the efficiency calculations is therefore an empirical question. To the extent that the authors' work will invite more careful empirical work measuring the benefits and costs of takeovers, it is a very welcome contribution. The TWA case study in particular provides compelling evidence that market value changes overestimated the benefits, but that is thin evidence from which to generalize.

Shleifer and Summers pursue a second efficiency theme that is more controversial and rather independent of the ex post measurements discussed above. They argue that takeovers will interfere with efficient long-term contracting. The hypothesis is that the rents that raiders capture in a takeover are part of an efficient implicit contract between

Bengt Holmstrom is the Edwin J. Beinecke Professor of Management Studies and professor of economics at the School of Organization and Management, Yale University.

This work was supported by funds from the National Science Foundation and the Alfred P. Sloan Foundation.

the firm and its stakeholders. Once it becomes known that those rents will not be possible to appropriate, because of the threat of takeovers, enforcement costs will go up. Thus, even if the above ex post welfare calculation comes out even, the takeover should be deemed socially undesirable on grounds of ex ante efficiency losses. Needless to say, the increased costs of contracting are very hard to assess empirically, but as I will argue later they may be of less concern as well.

I do not find entirely convincing the authors' particular theory of takeovers' being motivated by gains from breaching implicit contracts, nor do I agree with all the welfare implications their logic suggests. In response, I will offer some alternative views. Since we do not have any good models of the takeover process as yet, my own ideas are as speculative as the authors'. I feel a bit diffident about the exercise, however, since in the near future our understanding may improve substantially through theoretical work. I am thinking of the recent interesting papers by Harris and Raviv (1987) and Grossman and Hart (1987), which seem to provide the proper setting for analyzing the motives for takeovers as well as their welfare implications.

The authors correctly recognize that for their breach theory to hold up logically, there must be an asymmetry between the raider and the incumbent management. If not, both would breach under the same circumstances, and no takeover would be necessary. What I find less plausible is the particular asymmetry that the paper focuses on. The claim is that shareholders choose trustworthy managers and entrench them in their positions to facilitate efficient long-term contracting. The choice of a trustworthy manager acts as a commitment device. The authors are led to this logic because the reputation arguments, which would typically be used to explain implicit contracting, are forward looking and would therefore seem to put raiders and management in a symmetric position. In fact, this need not be the case. If the trustworthiness of a manager is unknown, a breach of promise by the manager would be costly. By contrast, the raider need not lose any reputation from a breach because he never made any promise. But I do not place much faith in this logic either. I think that reputations are involved, but in a different manner.

My main problem with the entrenchment logic is that it does not explain why present shareholders could not capture the rents themselves. Since shareholders are assumed to be able to select managers, they should also be able to replace those managers when interests so dictate. In the authors' theory the decision to breach a contract is merely moved one step up (to shareholders) without altering the basic symmetry problem that the authors were careful to address in dismissing the standard reputation argument. While entrenchment implies the added costs of capturing rents, these costs (as well as the increased costs of contracting) have to be borne equally by the raider and the

shareholders. Moreover, it would seem that shareholders would gain more from ousting their trustworthy managers because the rents they can thereby capture will not be shared with anybody else. (Raiders have to share a substantial portion of the gains with shareholders—not because this is a common values auction, but rather because shareholders can free-ride). My conclusion is that if one takes seriously the notion that management is selected by shareholders, takeovers should not occur, at least not because of the breach motive suggested in the paper.

Besides this logical problem the evidence in the paper that managers resist takeovers because they are trustworthy and concerned about stakeholders seems thin. In the TWA case, for instance, management had a bad relationship with workers (who subsequently were deprived of some rents). And the comments made about white knights, who “have a shade of grey” and proceed to capture rents themselves, speak against the authors’ theory. On a more casual level I think one could collect plenty of evidence indicating that managers are quite capable of ignoring broader social concerns and breaching trust when doing so in their own interest.

Thus, I would prefer a theory of takeovers that does not rely on the selection of trustworthy managers. It is possible to construct a theory within the standard rational framework that assumes managers are as self-interested as everyone else. I have in mind the following story. Managers’ behavior is dictated by career concerns. They value their job because of the rents they can enjoy in their managerial position. Their rent-seeking is constrained only by the interests of constituent groups and threats from raiders. Much like politicians, managers need to enjoy the support of their constituents—shareholders, employees, and other stakeholders. Among those constituents, shareholders may be a relatively weak group because of the familiar problems with coordinating the actions of a widely dispersed ownership. Their weakness may in turn lead management to cater more to the interests of employees, for instance, particularly if the latter are organized and strong. It is much more comfortable to have a good relationship than a bad one with employees, as long as the shareholders do not object too strongly. This story, rather than that of implicit contracting, explains the rents that workers enjoy.

But why are the raiders in a better position to capture rents than either management or shareholders? For shareholders my answer is that coordination problems make it difficult for them to act in unison and capture rents. On the other hand, and this is a central ingredient, raiders enjoy an advantage over managers in enacting changes because they typically come in with a reputation for toughness. Managers who have previously given in to labor demands in order to enjoy a more

comfortable life will not be able to shift their negotiation position in mid-course. As recent reputation theories would indicate, any such shift would not be credible in the eyes of workers. By contrast, raiders are not burdened by a reputation for weakness.¹

This reputation theory is quite consistent with the authors' observation that raiders tend to go after firms in industries very distinct from their own (an observation that plays no role in the authors' theory). The returns to raiders come from general bargaining advantages and not from specific knowledge of an industry (witness that their staff is small as well). The theory also accords with the particulars of the TWA case, including the fact that Carl Icahn is known as a hard-nosed bargainer and more than willing to promote an unpleasant image of himself. That unionized labor receives premium salaries (around 15 percent) supports the notion that managers are willing to give away rents if pressed hard enough. Finally, my logic is not inconsistent with the emergence of white knights, who presumably are called in by the managers to save their jobs and help with capturing rents before the raider can get to them.

Having sketched an alternative theory of why there are rents to be captured and why a raider rather than shareholders or management can go after them successfully, let me turn to the efficiency questions raised in the paper. To the extent that my story is correct, it suggests that one should be much more concerned about the potential inefficiencies that might accompany concessions by management to various constituent groups. For instance, excess wages could seriously distort employment decisions. More generally, one is led back to the traditional concern that management may not operate the firm efficiently because of agency problems. Of course, this in no way invalidates the general point that measuring efficiency gains from changes in stock price is inappropriate.

On the other hand, even if one believes that takeovers increase contracting costs (which I do to some extent, as the proposition is not inconsistent with my reputation story), it should be emphasized that these costs, as far as the targeted firm is concerned, are not ones to be added into an efficiency calculation. (The paper may give the misleading impression that they should.) It is important to note that these costs are already accounted for in the evaluation of the post-takeover market value of the firms and the raider's rational decision to buy.

1. One might ask why managers do not bargain hard given the expectation of takeovers. I think the answer is that the recent boom in hostile takeovers came as a surprise. The innovation that was not expected was the emergence of an inexpensive and expedient way to raise substantial amounts of capital for the takeover. Given the low probability of such an event, the managers would not care to push on the bargaining side. Presumably they will try *ex post*, but they cannot do that as effectively as the raider, given their past reputation.

Consequently, the estimation of cost increases in the acquired firm is of no concern in assessing welfare.

The only issue is what externalities a contract breach can have. The authors mention that a spreading fear of takeovers can jeopardize other firms' contracting opportunities. This is possible, but the paper does not provide much supporting evidence. It is not relevant that the workers in firms that have been taken over feel a lost loyalty, as I argued above. (The anecdotal evidence at the end of the paper appears to be of this kind). Instead, one should focus on those firms that might be future targets. Are the workers there worried? Do they respond to the new reality by demanding higher initial wages, as the implicit contract logic would suggest? I do not know what the facts are here. On the other hand, casual observation indicates that managers will spend substantial energy on defensive activities, including the inefficient restructuring of firms. My guess is that these costs are in the end more significant than the problems with contracting.²

Evidently, the factors to consider in any policy decision about takeovers are many and difficult to evaluate. I do not deny that implicit contracting could be an important element, but I think the chapter jumps too quickly to welfare conclusions based on a theory I find somewhat implausible. In asking whether society should intervene and how, one must appreciate the fact that laws cannot be written in a very idiosyncratic fashion. It is hard to discriminate between cases in which welfare is enhanced and cases in which welfare is reduced by takeovers. Many takeovers are of social value, as discussed for instance in Brown and Medoff's chapter in this volume. One should also wait for natural responses to takeovers (resistance measures by management and revisions in corporate charters). Our capitalist economy has proved quite inventive before. For instance, if firms find ways to alter their charters so that they can choose any likelihood of takeover that they desire at a low cost, there is no reason for the government to intervene with the purpose of limiting takeovers. In this case the externality costs from fear would disappear. To this hotly debated issue the best response may therefore be to stay cool and watch from the sidelines until further evidence accumulates and until we find some firmer theoretical ground for assessing the motives and implications of takeovers.

2. Incidentally, there is a reverse externality that tends to reduce the number of takeovers. Potential raiders are presumably uncertain about success. Every time a takeover is attempted, it provides information about success rates, including the costs of raising the required capital and the resistance methods that management might use. Thus, the takeover is an experiment of social value (if takeovers are desirable), but only a small fraction of that value accrues to the raider because of the public goods nature of information. The recent boom in (hostile) takeover activity is indicative of such an externality.

References

- Grossman, Sanford, and Oliver Hart. 1987. One share/one vote and the market for corporate control, photocopy. Cambridge: Massachusetts Institute of Technology.
- Harris, Milton, and Arthur Raviv. 1987. Corporate governance: Voting rights and majority rules, photocopy. Evanston, Ill.: Northwestern University.

Comment Oliver E. Williamson

The increased valuation of the combined equity securities of firms involved in a takeover is often attributed to prospective improvements in managerial efficiency. Shleifer and Summers argue that this explanation is too simple. They observe that many takeovers bring about an expropriation of rents. To a first approximation, these takeovers are redistributive rather than efficiency enhancing. Indeed, social losses will obtain if, as a secondary or systems consequence, confidence (trust) in the contracting process is lost.

Expropriation is not, however, the only interpretation for the wage cuts that attend the takeovers to which Shleifer and Summers refer. An alternative and, I submit, more plausible interpretation is that a reduction in the scope of managerial discretion is responsible for the wage cuts in question. Before sketching these rival wage cut scenarios—expropriation and managerial discretion—and their welfare ramifications, I will briefly raise a question of theoretical perspective.

The study of economic organization is both very complex and relatively undeveloped. Under these circumstances there are advantages in adopting a "main case" perspective. Rival main case candidates—which include economizing, monopoly, and issues of power—should then be required to show their hand. What are the implications of each, and what do the data support?

I have argued elsewhere that the economizing approach to economic organization, with special reference to economizing on transaction costs, qualifies (comparatively) for main case standing (Williamson 1985, 1987). This fact does not, however, preclude the possibility that other ancillary or auxiliary purposes are also served. How do we evaluate these?

Whereas the main case presumably applies in general, auxiliary purposes are apt to be associated with special preconditions. Strategic behavior by established firms that is designed to discipline rivals or deter market entry, for example, is viable only if supported by preexisting

market power. One useful way of discriminating among alternative auxiliary purposes, therefore, is to ask whether the requisite preconditions are satisfied. I suggest that this course be followed in attempting to choose among alternative explanations for the takeover-induced wage cuts that are of concern to Shleifer and Summers.

The condition of asset specificity plays a key role in the study of contract (Williamson 1975, 1985; Klein, Crawford, and Alchian 1978) and features prominently in the Shleifer and Summers expropriation scenario. The basic argument is this: Constituencies that make durable firm-specific investments are exposed to the hazard of expropriation unless special efforts are made to safeguard these investments. Long-term contracts supported by protective governance structures are thus favored wherever asset specificity is great. Selecting managers who exhibit integrity and exude trust helps to supply this contractual glue.

An equilibrium set of contracts with managers operating as trustees can be upset, however, by the appearance of a takeover. The would-be takeover agent offers a bribe to one of the constituencies, namely, the shareholders, to sell out. The successful takeover agent then dismisses the incumbent (trustee) managers and abrogates the contractual understanding that had hitherto prevailed. Workers with firm-specific skills are advised that wages will be slashed by 20 or 30 percent. Because their skills are imperfectly redeployable, the workers accept this deal.

Inasmuch as the wage bill in most firms is very large in relation to profits, a 20 or 30 percent wage cut can have huge consequences for profitability. The existence of firm-specific labor (and other firm-specific factors, such as specialized suppliers) thus represents an enormous inducement to a raider.

As Shleifer and Summers point out, the expropriation from labor has immediate redistributive effects. It also has continuing contractual effects, as employees find their confidence (trust) in the contracting process shaken. Future workers will contract much more carefully, refuse to tailor their human assets to the firm, or both. A pervasive erosion of trust would have adverse systems effects as well, whence both local and global allocative efficiency losses could result.

The managerial discretion models maintain that managers operate the firm with reference to their own interests, subject to the condition that their jobs not be jeopardized by sales, growth, or other management-favored goals.¹ The refutable implications of these models turn critically

1. Baumol's (1958) sales maximization hypothesis was the first of the managerial discretion models. Marris (1964) subsequently argued that managers were given to growth maximization, and I (1964) postulated a managerial utility function that featured an "expense preference."

on the proposition that the scope of managerial discretion varies systematically with circumstances. The scope of discretion is assumed to be greater in the degree to which (1) firms are relieved from competition in the product market, (2) competition in capital market forces is weak, and (3) the organization of the firm supports the pursuit of ancillary goals.

This Comment focuses on *changes* in the condition of competition in the product market as these relate to wage behavior. The general argument is this: Firms that operate in highly concentrated industries that are difficult to enter or in regulated industries that allow the pass-through of costs and prohibit entry are especially given to managerial discretion (Williamson 1964; Alchian 1965).

What has been referred to as the agency theory approach to economic organization expressly takes exception to the proposition that the scope of managerial discretion varies with competition in the product market. Thus, Jensen and Meckling (1976, 317) have observed that "it is frequently argued that the existence of competition in the product . . . markets will constrain the behavior of managers . . . , i.e., that monopoly in product markets will permit larger divergences from value maximization. Our analysis does not support this hypothesis." Shleifer and Summers rely on the Jensen and Meckling nexus of a contract conception of the firm and, as set out above, appeal to breaches of trust (breakdowns in the contractual relationship), rather than to changes in the condition of product market competition, in explaining the wage cuts that attend the takeovers in question.²

To examine the alternative explanation—managerial discretion—suppose at the outset that the firms in question are operating in highly concentrated industries where entry is difficult, perhaps even where entry is prohibited by regulation. Suppose further that managers have Hicksian preferences for a "quiet life." And suppose finally that the contractual relationship between the firm and each constituency with which management must deal has an influence on managerial tranquility.

Granting wage concessions, especially in the face of a strong labor union, is an obvious way by which to promote labor peace. Assume, for the sake of argument, that the managements of firms in monopolistic and regulated industries do make such wage concessions. Although shareholders will be temporarily disadvantaged as wages intrude on

2. Jensen has more recently embraced the managerial discretion view (which he characterizes, however, as the "free cash flow" hypothesis). Thus, he now maintains that "product and factor market disciplinary forces are often weaker in new activities and activities that involve substantial economic rents or quasirents. In these cases, monitoring by the firm's internal control system and the market for corporate control are more important" (1986, 323). In effect, free cash flow is a specialization of managerial discretion theory. It usefully focuses attention on financial issues akin to those addressed by Grossman and Hart (1982).

profits, share prices will thereafter adjust to reflect the reduced profitability. Partial profit recoupment may be effected, moreover, by raising product prices without inviting entry. A stable, easy life equilibrium in which labor is bribed to cooperate thereby results.

Suppose now that a disturbance appears. One possible disturbance is that the government removes the protective mantle of regulation. Another is that import barriers come down so that foreign producers become more viable alternative sources of supply. Entry by new firms that are not subject to the *modus vivendi* regarding wages now threatens. What to do?

One possibility is for the incumbent managements to roll back the earlier wage concessions, thereby to meet any new competition on parity wage terms. By assumption, however, the incumbent managers still value the quiet life, and labor can be expected to greet the proposal with a storm of protest. Another possibility is for a new management team to form that is better suited to deal with (indeed, may value) turbulence. But how to effect the change?

Since the incumbent managers like their jobs, their voluntarily quitting is not in prospect. And since they will rebuff the offer of a new management team to supplant the incumbents, an involuntary means of displacement will need to be employed. Suppose that the new management team turns to the shareholders and proposes a takeover by paying a premium over the (now reduced) share prices. Assume that the shareholders approve. The takeover and subsequent renegotiation of wages that Shleifer and Summers describe follows.

Whereas the Shleifer and Summers scenario assumes that managers are trustees and focuses on firms in which labor has made significant firm-specific investments, the scenario I describe instead assumes that managers are given to managerial discretion and focuses on industries where the *condition of competition has changed*. Specifically, the managerial discretion scenario focuses on those industries that once were difficult to enter but where now entry impediments have been relieved. (The U.S. automobile industry exhibits some of this attribute. Industries that have recently been deregulated and whose principal durable investments are mobile—such as airlines and trucking—are even better examples.)

Thus, whereas all firms in which labor has made significant firm-specific investments are potential expropriation candidates under the neutral nexus-of-contract hypothesis, the managerial nexus hypothesis looks to conditions that would support managerial discretion³ and asks if entry restrictions have significantly eased.

3. The argument can be refined with reference to organizational form. The basic argument here follows the M-form hypothesis (Williamson 1975, 150–51), to wit: U-form firms are more given to excesses of managerial discretion than are M-form firms, *ceteris paribus*.

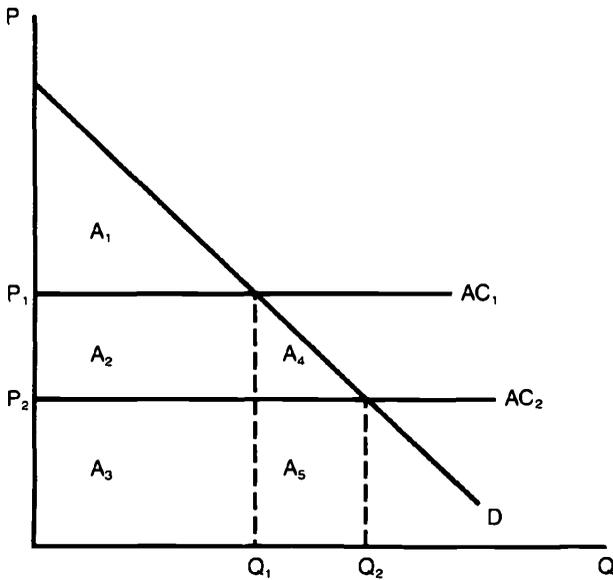


Fig. 1 A geometry of the welfare consequences of takeovers

I now turn to the welfare geometry of the two scenarios. Whether managers behave as trustees (the Shleifer and Summers scenario) or tilt the enterprise in favor of the quiet life (as sketched above), the welfare ramifications can, to a first approximation, be assessed in standard terms of partial equilibrium welfare economics.

Figure 1 sets out the basic geometry. AC_1 in the figure refers to average costs in the pretakeover era. To keep things simple, assume that price (P_1) is equal to AC_1 . AC_2 is the level to which pecuniary costs fall as a result of the forced renegotiation of labor contracts that attends the takeover.

Shleifer and Summers treat the workers as locked in to the firm, by reason of firm-specific human capital, and thus the area A_2 is transformed from wages to profits under this scenario. The real productivity of the workers is nonetheless reflected by AC_1 , however. Accordingly, new entrants cannot come in and sell at less than P_1 simply by paying a low wage—because the incumbent workers who have built up their firm-specific capital in the established firms will outperform the inexperienced, new workers. Until the incumbent workers retire, therefore, the area A_2 is the initial and continuing profit gain that is realized by the takeover—wage cut scenario described by Shleifer and Summers.⁴ This is a redistribution.

4. This geometry assumes that (1) the incumbent workers' productivity does not drop and (2) the existing rivals maintain the price P_1 despite reduced pecuniary costs.

The scenario that I describe also involves an initial shift in amount A_2 from wages to profits. Assuming, however, that AC_1 does not reflect a payment for productivity but is an "easy life" premium instead, the price P_1 will be subject to competitive erosion. New rivalry appears, something akin to a Schumpeterian "handing on" process ensues, and the prices (P_2) will be bid down to the level AC_2 . The profit gains are thus transitional. The area A_2 in the final equilibrium becomes consumer surplus. The triangle A_4 is an allocative efficiency gain.

Shleifer and Summers aver that the workers who experience the expropriation will be loath to contract with firms in the same trust-worthy manner as they did in the post-takeover era. Either they will contract much more carefully, thereby to protect their firm-specific human capital against any further expropriation, or they will refuse to specialize their human assets (or some combination thereof). Pervasive systems effects may also obtain, as interested observers thereafter negotiate more cautiously as well. The allocative efficiency losses of moving from a high-trust to a low-trust culture must be counted as a social cost of takeovers.

The managerial discretion hypothesis treats the high wages in the pretakeover era as a bribe. The lucky beneficiaries realize a windfall that evaporates upon takeover. But possibly the situation is more complicated than this. The beneficiaries are workers who have made special efforts to qualify for high-paying jobs through pre-positioning. They have incurred special costs of obtaining credentials (see the rent transformation literature: Krueger 1974; Posner 1975; Tullock 1967), and they may be overqualified as a consequence.

The welfare ramifications of takeovers are therefore complicated under the managerial discretion hypothesis as well. Workers here may also feel a justifiable sense of expropriation. They likewise may attempt to contract more carefully thereafter. But these workers may also be deterred from rent transformation once they realize that wage premia invite takeovers. This is a mixed picture.

In conclusion, although most takeovers are not attended by large wage cuts, some are, and therefore we must ask what factors are associated with wage cut outcomes. The two alternative scenarios discussed here have somewhat different foci of attention. Whereas the expropriation scenario assumes that pretakeover managers are trustees, the managerial discretion scenario assumes that pretakeover managers sacrifice profits in favor of the quiet life. Labor, under the expropriation scenario, is highly firm-specific, whereas labor can be either specific or nonspecific under the managerial discretion hypothesis. Probably the most telling difference between these two scenarios is the importance each attaches to competition in the product market.

The managerial discretion hypothesis assumes that wage cuts are attended by (indeed, induced by) increased product market competition (greater import competition, deregulation, or the like), while the expropriation scenario is silent in this respect. Finally, whereas both product prices and wages fall under the managerialist explanation, only wages are reduced under expropriation.⁵

Which hypothesis is most powerful awaits a systematic development of the data. The specific examples to which Shleifer and Summers refer are nonetheless congruent with the managerialist interpretation.

References

- Alchian, Armen. 1965. The basis of some recent advances in the theory of management of the firm. *Journal of Industrial Economics* 14 (December): 30-41.
- Baumol, William. 1958. *Business behavior, value and growth*. New York: Macmillan.
- Grossman, Sanford, and Oliver Hart. 1982. Corporate financial structure and managerial incentives. In *The economics of information and uncertainty*, ed. J. McCall, 109-37. Chicago: University of Chicago Press.
- Jensen, Michael. 1986. Agency costs of free cash flows, corporate finance, and takeovers. *American Economic Review* 76 (May): 323-29.
- Jensen, Michael, and William Meckling. 1976. Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics* 3: 305-60.
- Klein, Benjamin, Robert Crawford, and Armen Alchian. 1978. Vertical integration, appropriable rents, and the competitive contracting process. *Journal of Law and Economics* 21 (October): 297-326.
- Krueger, Anne O. 1974. The political economy of the rent-seeking society. *American Economic Review* 64 (June): 291-303.
- Marris, Robin. 1964. *The economic theory of managerial capitalism*. New York: Free Press.
- Posner, Richard. 1975. The social costs of monopoly and regulation. *Journal of Political Economy* 83 (August): 807-27.
- Tullock, Gordon. 1967. *The politics of bureaucracy*. Washington, D.C.: Public Affairs Press.
- _____. 1967. The welfare costs of tariffs, monopolies, and thefts. *Western Economic Journal* 5 (June): 224-32.
- Williamson, Oliver E. 1964. *The economics of discretionary behavior*. Englewood Cliffs, N.J.: Prentice-Hall.
- _____. 1975. *Markets and hierarchies*. New York: Free Press.
- _____. 1985. *The economic institutions of capitalism*. New York: Free Press.
- _____. 1987. Mergers, acquisitions, and leveraged buy-outs: An efficiency perspective, photocopy. New Haven: Yale Law School, January.

5. That prices remain unchanged under the expropriation scenario is an oversimplification. A more accurate statement is that prices fall *more* under the managerialist explanation.

