Hostile Takeovers and Overreliance

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ABSTRACT

Commentators have argued that employees should be compensated in the event of a hostile takeover; otherwise, the threat of such a takeover will fail to incentivize firm-specific investments by employees. Such deferred compensation is analogous to the payment of damages following a breach of contract. The analogous breach, here, is the breach of an implicit contract between management and employees. Employees trusted management to compensate them for firm-specific investments not explicitly contracted for.

I use a familiar result from the contract law literature: There is no measure of damages for breach of contract that can generate both efficient breach and efficient investment by parties to the relationship. While zero damages results in an inefficiently high likelihood of breach, expectation damages result in too much investment. Similarly, in the hostile takeover context, no measure of ex post compensation to employees can generate efficient takeovers from outside bidders and efficient firm-specific investment by employees. Measures of compensation that incentivize only those takeovers that are efficient will lead to overreliance, i.e., excessive firm-specific investments. Essentially, trying to plug one leak exposes another.

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I. INTRODUCTION

The first half of 2014 witnessed resurgence in the use of hostile tactics in takeover activity.¹ Consider the following three examples. First, Pfizer recently made a $119 billion hostile bid for their British competitor, AstraZeneca.² Second, around the same time, Endurance Specialty Holdings sought to buy Aspen Insurance Holdings, but after friendly negotiations broke down, Endurance employed hostile tactics.³ Third, Valeant Pharmaceuticals put forward an unsolicited proposal to buy Allergan for $53 billion.⁴ Hostile takeovers are making a comeback, representing seven percent of global offer volume—the highest since 2007.⁵

Increased shareholder activism in recent years may be contributing to the use of hostile takeovers. If the Valeant bid for Allergan is any indication, a trend toward increased cooperation between activist shareholders and hostile bidders may be on the horizon. This hostile activity—along with the rise in shareholder activism more generally—may reopen the discussion of how hostile tactics affect stakeholders other than shareholders in the corporation. Such hostile behavior may shed new light on the age-old and ongoing debate on shareholder primacy.

A wave of hostile mergers, acquisitions, and corporate restructurings in the late 1980s and early 1990s was associated with significant job losses for long-term workers.⁶ A common concern was that shareholders were using such changes to expropriate the rents⁷ of these long-term employees, as well as other stakeholders such as suppliers and creditors. Commentators began to argue that employees should receive greater protection in corporate law.

For example, Margaret Blair and Lynn Stout’s paper, A Team Production Theory of Corporate Law,⁸ from fifteen years ago, provided a potentially paradigm-shifting analysis in the field of corporate govern-

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² Id.
³ Id.
⁴ Id.
⁵ Id.
⁶ Id.
⁷ Id.
The authors argued that the classic principal–agent model does not reflect the production realities of corporations, providing not only a descriptive analysis of the state of corporate law, but also challenging normative theories of shareholder primacy.\(^9\)

While the team production theory may never replace the conventional agency theory of corporate law, Blair and Stout’s paper has been lauded for its theoretical coherence and robustness,\(^10\) its ability to capture aspects of corporate law that the agency model fails to capture,\(^11\) and its real-world implications for corporate governance on wealth inequality.\(^12\)

Other commentators have critiqued the extent to which “pluralist” models, such as the team production theory, should play a role in corporate governance and, indeed, the extent to which they do play a role.\(^13\)

I shall put to one side most of these issues and controversies for the purposes of this paper. My focus, here, will be on one narrow aspect of Blair and Stout’s paper. Blair and Stout argue that if the rents from firm-specific investments made by stakeholders—such as employees—can be expropriated, this will dampen the incentive of stakeholders to make such investments:

[Our] model thus lends intellectual content to the argument that treating directors as trustees charged with serving interests above and beyond those of shareholders in fact can be in shareholders’ “long-run interests,” because a shareholder decision to yield control rights over the firm to directors ex ante—that is, when the corporate coalition is first formed—can induce other participants in the team

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\(^9\) Id. at 263–65 (summary of argument).


production process to make the kind of firm-specific investments necessary to reap a surplus from team production in the first place.14

This idea has intuitive appeal. There is a holdup problem arising from the corporation’s inability to provide complete contracts over the employees’ investment.15 In particular, if the rents generated by this investment are susceptible to expropriation, the employee will have less incentive to invest in, and add value to, the firm. An employee will only invest if she knows that the firm will reward the increased productivity.

I explore this idea further in the specific context of hostile takeovers. Hostile takeovers, if permitted by law, can lead to expropriation of workers’ rents. Consequently, if the law is permissive of hostile takeovers, workers may be less willing to invest their time and effort in firm-specific activities. Some form of compensation is therefore required to resolve the problem. But how much compensation should be given? And on what basis should it be awarded?

My goal here is modest. I use a familiar argument from the contract law literature to demonstrate that there is no simple ex post compensation scheme that will generate both efficient takeovers by outside bidders and efficient investment by employees. Importantly, a compensation scheme that fully compensates workers for the value of their firm-specific investment will generate the opposite problem to the one we started with. That is, compensation schemes may result in too much investment in firm-specific investments by employees. Following from the literature on contracts, I call this problem one of “overreliance.”

The argument proceeds as follows. In Part II, I spell out the problem of underinvestment by employees as it pertains to hostile takeovers in more detail. In Part III, I argue that there is no simple ex post compensation scheme that can solve both the takeover and the reliance problem. A compensation scheme that results in efficient takeover behavior—that is, a compensation scheme that is analogous to the expectation measure of damages in contract law—will generate incentives for overreliance by the employees: they will overinvest in firm specific investments. In Part IV, I investigate the limits of this analogy and examine how it is different from the idea of entrenchment that some authors have discussed. In Part V, I conclude by discussing the broader implications of the findings and suggest future avenues for research.

14. Blair & Stout, supra note 8, at 305.
II. THE PROBLEM IN HOSTILE TAKEOVERS: TOO LITTLE FIRM-SPECIFIC INVESTMENT BY EMPLOYEES

The argument made by Blair and Stout about inducing firm-specific investments by members of the team production process is a more general version of one made by Andrei Shleifer and Larry Summers in the context of hostile takeovers. In their paper, *Breach of Trust in Hostile Takeovers*, Shleifer and Summers argue that the large premia often received by corporate shareholders after a restructuring are, in fact, partly evidence of a transfer of wealth from stakeholders to shareholders, rather than evidence of created wealth due to efficiency gains. While takeovers can, of course, promote efficiency by reallocating resources from the hands of those who use resources poorly—i.e., inefficient managers—to a new group of managers, takeovers can also provide an environment for shareholders to expropriate wealth from stakeholders. In particular, Shleifer and Summers argue that hostile takeovers are an external means of removing managers who uphold stakeholder claims, allowing shareholders to engage in opportunistic behavior at the expense of stakeholders, especially employees.

Compare and contrast the following two scenarios used by Shleifer and Summers:

**Scenario [I]:** 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.

**Scenario [II]:** 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.

17. Id. at 36–37.
20. Id.
21. These are Scenarios A and C in Shleifer & Summers, supra note 16, at 34–35.
While both scenarios generate significant private benefits for the shareholders of the target firms, the net social benefits are very different. In Scenario I, society is better off as waste is eliminated. In Scenario II, society is worse off. The private benefits for the shareholders in Scenario II come at the expense of employees’ human capital and other stakeholders. For example, in an empirical study of hostile takeovers, Joshua Rosett found that a wealth transfer from workers to shareholders accounts for about ten percent of the takeover premium in the late 1980s.22

Shleifer and Summers examine situations where incumbent management needs to establish a reputation of trust for employees to feel rewarded for making firm-specific investments.23 While explicit long-term contracts would be the obvious solution here,24 Shleifer and Summers suggest that a reputation of trust must be established when contracts are unavailable or incomplete.25 That is, it is difficult to specify ex ante which investments should be made at particular points in time. If, later in time, employees are not subsequently rewarded for their investments, there is a breach of the implicit contract of trust. Given the reputational consequences, Shleifer and Summers argue that corporate raiders are far more willing than incumbents to breach an implicit contract with employees.26 The possibility of a hostile takeover, therefore, may dull the incentive of workers to make value-added, firm-specific investments. Monika Schnitzer formalized this argument in a 1995 paper.27

Shareholder-centered models of corporate law, which often fail to take stakeholders’ interests into account, may be deleterious in the long run for both shareholders and society. The threat of a hostile takeover that transfers wealth from stakeholders reduces their ex ante investment. Andrei Shleifer and Robert Vishny have separately argued that simply prohibiting hostile takeovers would not be beneficial.28 A prohibition would “simply throw out the baby with the bathwater,” denying the possibility of efficient acquisitions.29 Rather,
[S]everance pay and provisions to protect labor can alleviate the hardships of employees harmed by acquisitions and make implicit contracts more reliable. Shareholders of target firms should probably pay for at least some of these transfers to affect employees . . . . Provisions to help employees would also deprive embattled managers of one of their favorite public excuses for opposing hostile bids. The way to deal with transfers that occur in hostile takeovers is to compensate the losers . . . .

Several academics have similarly advocated for the implementation of labor protection provisions and worker compensation schemes to alleviate the negative wealth transfer effects and broad worker dislocation associated with hostile takeovers. For example, in a 1988 article, John Coffee argued that there might be a legitimate role for state regulation of takeover offers to prevent opportunism on behalf of shareholders against other stakeholders in the corporation. While Coffee primarily concentrates on opportunistic conduct taken by shareholders against managers—rather than employees generally—he argues that takeover control legislation may be valuable if it leads to more equitable sharing of takeover gains with other stakeholders. As such, in an argument similar to that advanced by Blair and Stout, Coffee suggests that the board of directors may have a mediating role to play between shareholders and other corporate stakeholders.

In the early ‘90s, Marleen O’Connor argued that the widespread legislative adoption of nonshareholder constituency statutes did not go far enough in addressing the problem of plant closings and worker dislocation. Instead, O’Connor suggested that employees should have legitimate noncontractual claims against the corporation, based on the degree of their firm-specific investment. Under O’Connor’s model, boards of directors would be subject to a broader fiduciary duty that would include a legal obligation to alleviate the harsh effects on employees brought on by corporate changes, such as hostile takeovers. The compensation, here, would take the form of adequate severance payments, suitable job re-

30. Id.
32. Id. at 435.
33. Id.
34. Id. at 448.
36. Id. at 1222–23.
training, and other appropriate relief to displaced workers.\textsuperscript{37} O’Connor believed that this \textit{ex post} compensation could best be identified on a case-by-case basis.\textsuperscript{38} Other commentators have made arguments in a similar vein.\textsuperscript{39}

For example, Alexander Gavis has suggested using “silver” or “tin” parachutes, whereby employees are given explicit contractual rights to compensation in the event of corporate restructuring.\textsuperscript{40} In the context of the contractual damages analogy, providing employees with direct or individual compensation for the added risk of takeovers is akin to a liquidated damages clause. In his paper, Gavis also advocates that employee stock ownership plans should be used to provide stock compensation to workers.\textsuperscript{41} These mechanisms are somewhat different to the \textit{ex post} compensation schemes that I will discuss in this paper.\textsuperscript{42} The contracts in Gavis’s model are explicit.\textsuperscript{43} They stipulate the precise compensation in the event of breach—that is, in the event of a takeover.\textsuperscript{44} Moreover, Jonathan Macey expresses a preference for these types of private contractual solutions over public regulation of takeovers.\textsuperscript{45} But the problems raised by Shleifer and Summers—and others—are generated from the \textit{ex ante}, noncontractible nature of the investment activity.

Robert Howse and Michael Trebilcock propose another type of worker protection scheme.\textsuperscript{46} Howse and Trebilcock address the role and

\textsuperscript{37} Id. at 1254.
\textsuperscript{38} Id. at 1254–57.
\textsuperscript{39} See, e.g., Alan E. Garfied, \textit{Helping the Casualties of Creative Destruction: Corporate Takeovers and the Politics of Worker Dislocation}, 16 J. CORP. L. 249 (1991) (raising concerns that limitations on takeover activity only serve to entrench corporate executives in power while failing to protect the low-level employees who suffer the greatest degree of harm from dislocations; therefore, workers should be given more power to influence the allocation of corporate resources); Wai Shun Wilson Leung, \textit{The Inadequacy of Shareholder Primacy: A Proposed Corporate Regime that Recognizes Non-Shareholder Interests}, 30 COLUM. J.L. & SOC. PROBS. 587 (1997) (arguing stakeholders should be entitled to a cut of the takeover gains, suggesting that boards must consider equally the interests of shareholders and other stake derivative actions as the preferred mechanism); Katherine Van Wexel Stone, \textit{Employees as Stakeholders Under State Nonshareholder Constituency Statutes}, 21 STETSON L. REV. 45 (1991) (addressing the weaknesses of measures to protect workers in labor legislation and other measures).

\textsuperscript{41} Id. at 1455.
\textsuperscript{42} See infra Part III.
\textsuperscript{43} Gavis, supra note 40, at 1455.
\textsuperscript{44} Id.

limits of worker participation as a response to the failure of *ex ante* contractual bargaining to adequately protect workers’ firm-specific investments following corporate restructuring.\(^{47}\) The authors’ findings show that worker participation may be attractive in some limited circumstances; however, it often creates new conflicts of interest within the firm.\(^{48}\)

Other authors have used formal theoretical models to emphasize the role of hostile takeover defenses in encouraging firm-specific investments. For example, Charles Knoeber argues that takeover defenses such as golden parachutes and shark repellents can be viewed as mechanisms to commit the firm to deferred compensation for management, which is part of the implicit contract.\(^{49}\) Takeovers in his model are entirely exogenous, so defenses in his model do not affect the stock price.\(^{50}\) As a consequence, such defenses cannot be used to raise the price for shareholders, nor can they be used to incentivize managers.\(^{51}\)

In the next Part, I discuss the efficiency implications of the use of *ex post* compensation schemes for employees. These compensation schemes are basically analogous to damages for breach of contract—the takeover results in a breach of the implicit contract between the shareholders and the stakeholders, and the *ex post* compensation scheme acts as a measure of damages. I illustrate a notable problem of trying to use contractual damages to remedy breach: the problem of overreliance.

III. COMPENSATION SOLUTIONS: PLUGGING ONE LEAK EXPOSES ANOTHER

**A. Summary of the Argument: No Ex Post Compensation Scheme Can Result in Both Efficient Takeovers and Efficient Investment**

My argument starts with the assumption that underinvestment by workers is a particularly acute problem when there is a threat of hostile takeover or other hostile activity that may extract workers’ rents. For example, factory workers may not wish to invest time or effort learning

\(^{47}\) *Id.* at 752.

\(^{48}\) *Id.* at 753.


\(^{50}\) In the model below, the corporate raider’s valuation of the target company is exogenously given. The probability of takeover, therefore, is a function of the level of compensation that must be made to workers in the event of hostile takeover.

\(^{51}\) See Gilles Chemla, *Hold-Up, Stakeholders, and Takeover Threats*, 14 *J. Fin. Intermediation* 376, 376–97 (2005) (examining a bilateral hold-up problem where stakeholders also appropriate a fraction of the value created by bidder. In his model, stakeholders continue to underinvest in all situations).
to use machines that are only used by their employers, knowing that these skills are not transferrable in the broader market. The underinvestment in firm-specific investments by employees means that the firm does not reach its optimal value. Of particular interest is how to remedy this underinvestment.

I approach the problem from a slightly different perspective than the prior literature described above. I argue that the ex post compensation awarded to workers following a hostile takeover—or other expropriating activity—can be thought of in the same way that we think of contractual damages. Traditionally, when a contract is breached, the nonbreaching party is entitled to damages. Such contractual damages compensate for the breaching party’s failure to uphold their end of the bargain. In a similar vein, a hostile takeover results in a breach of trust, which is essentially nonperformance of an implicit contractual term. The compensation schemes described by Shleifer, Vishny, and Knoeber, therefore, can be thought of as damages: an amount of money paid by a defaulting party to the innocent promisee. In the context of our situation, the innocent promisees are employees who have invested in the firm.

As noted in the Introduction, my goal here is modest. I will use a familiar result from the law and economics literature on contract law to illustrate that, under plausible scenarios, there is no compensation scheme that, by itself, can both encourage efficient takeovers by outside bidders and efficient investments by employees.

Essentially, in trying to find a solution to one problem, another unexpected problem arises. Specifically, by trying to both incentivize efficient takeovers and encourage optimal value-enhancing investment activity by workers, we may find ourselves encouraging excessive firm-specific investment activity by workers.

I will first spell out the argument in the contracts literature. I will then illustrate the analogy between contractual damages and the compensation for breach of trust in the hostile takeover context. In the Part that follows, I will discuss those aspects of the model where the analogy breaks down and where the model fails to capture the essence of the problem discussed by Blair–Stout and Shleifer–Summers.

B. Shavell on Contractual Damages

In a famous 1980 paper, Steven Shavell found that there is no measure of damages that can encourage both efficient breach and efficient investment in the relationship (or “reliance”). To quote Shavell:

“There does not exist a damage measure which leads to Pareto efficient decisions concerning both breach and reliance . . . [I]n other words, there is no damage measure which acts as a perfect substitute for complete contingent contracts.”

Notably, Shavell finds that expectation damages—putting the non-breaching party in a position as though the contract had been performed—will promote efficient breach behavior by implicitly forcing the breaching party to internalize the losses that the breach would impose on the other party. Efficient breach characterizes the situation when it is more efficient for a party not to perform the obligation under the contract rather than to perform.

Despite the gains in social efficiency that expectation damages generate, Shavell finds that measures of expectation damages result in promisees choosing a level of reliance that is greater than the Pareto efficient level of investment. The reason for the overinvestment is that promisees act as though they are fully insured against the negative consequences of a breach of contract, and as such, do not fully factor in the likelihood that their investments may be wasted.

An example will help illustrate this argument. Consider the following contract for the sale of a car. $A$ agrees to sell a car to $B$ for $1,000. $B$ pays the $1,000 up front, and $A$ agrees to deliver the car one week later. The initial value of the car to $B$ is $1,000. During that week, the buyer $B$ makes a reliance investment specific to the car. Let’s say $B$ has two possible options for investing. The first is to invest nothing. The second option is for $B$ to invest in new wheels for $200, raising $B$’s value of the car to $1,300 (an additional $300 return for a $200 investment).

Between the date of payment and the date of delivery, a second buyer, $C$, may offer his value of the car, $1,500, to $A$. Assume that there is a 50% chance that $C$ will value the car at $1,500, but zero otherwise. Assume that $C$ gets no benefit from the investment of the new wheels. $A$ will be willing to sell the car to $C$ provided that the cost of breaching the contract—the measure of damages that he must pay to $B$—does not make this new trade unprofitable. If an expectation measure of damages is used, then $A$ will breach the contract with $B$ if the value to $C$ is greater than $B$’s valuation of the car (i.e., when $C$ values the car at $1,500). Under these

53. Id. at 472.
54. Expectation damages are the measure of damages most commonly used by courts in common law countries.
55. See Shavell, supra note 52, at 483.
56. Id. at 478. The Pareto efficient level of investment is defined as the level of investment that leads to maximization of the sum of the expected values of the contract to the buyer and to the seller.
57. Id.
circumstances, the car will be allocated to the person who values the goods the highest; that is, there is efficient breach and efficient performance.

While the measure of expectation damages does incentivize efficient breach, the level of reliance investment by the buyer $B$ will be excessive. While it may seem optimal for the buyer $B$ to make the additional investment in the new wheels (since the additional $200 investment increases the value by $300), this conclusion is incorrect. This increase in social surplus only occurs if the contract between $A$ and $B$ is completed. If the contract is not completed—that is, if the second buyer $C$ values the car at a higher value than $B$—then the additional reliance investment by $B$ is wasted. If the breach decision is efficient, there is only a 50% chance that $B$ will end up with the car. While the additional $200 investment by $B$ is certain, the $300 return is only likely to occur with 50% probability. The expected return on investment for society is only $150. That is, the investment is socially wasteful.

While socially wasteful, the investment is privately optimal to $B$ in a world of expectation damages. Under expectation damages, the $200 investment will always generate a private return of $300 to $B$. $B$ will either receive the car (with a probability of 50%) or she will receive an amount of money equal to her value of the car. Because the expectation remedy essentially guarantees that $B$ will receive the return on investment, $B$ will make privately optimal—but not socially optimal—investment decisions.

The takeaway is that a measure of damages that protects the expectation interest will generate efficient breach but incentivize too much investment by the buyer. Similarly, in the hostile takeover context, compensation that rewards employees for the expected value of their investments will result in efficient takeover behavior but will incentivize too much investment by workers.

An efficient takeover is one where value or wealth is created (as in Scenario I above); in contrast, an inefficient takeover destroys social value (as in Scenario II). Under an ex post compensation scheme that reflects workers’ expectation interest, destructive takeovers will be discouraged, as corporate raiders will no longer find it valuable to engage in takeover activities that merely result in a transfer of wealth away from corporate stakeholders. The analogy with Shavell’s analysis on contractual damages, however, suggests that compensating employees according to their expectation interest will result in employees overinvesting in their relationship with the firm. Thus, from the perspective of firm-specific investment, compensation measures lead to precisely the opposite problem than the one that the above-noted commentators are con-
cerned about. That is, we get excessive investment by employees in the firm.

C. Analogy to Hostile Takeovers with Compensation

In this section, I illustrate what happens when workers receive compensation if their rents are expropriated during a hostile takeover. I draw heavily on Shavell’s model of contractual damages, with some minor modifications and a number of simplifications. First, I will provide some preliminaries and a description of the timing of the model. Let us assume that all players here are risk neutral. Workers and firms contract in period one. For simplicity, we assume that at the time of contracting, the exact type of investment required by the workers is not known. Firms and workers, therefore, cannot contract on the investment at the time of contracting, but the workers may trust the firm. In a situation where the workers trust the firm, workers invest in firm-specific investments in period two. Workers and firms implicitly contract over the wages that will be paid to workers in subsequent periods. The implicit contract will reward workers who stay with the firm for their investments later in their careers. The more that workers invest in the firm, the greater the value of the firm. But the more they invest in firm-specific skills and knowledge on the basis of trust, and trust alone, the more they risk loss from expropriation by outsiders.

At the start of period three, the value of the firm under current management is realized. While the model abstracts away the explicit behavior of management, the relative effectiveness of current management is reflected in how an outside bidder might view the firm. An outside bidder can accurately ascertain the value of the firm and determine how much of the workers’ rents can be expropriated should they take over the firm. I assume that for reasons of personal reputation, management will not agree to a takeover, and thus, the takeover is hostile. After succeeding in the hostile takeover, the acquirer replaces the prior management, breaches the implicit contracts between the workers and the incumbents, and expropriates the value stakeholders have created.

How, then, do we compensate workers ex post (if at all) for this breach of implicit contract? Shavell’s paper analyzes two situations of contractual breach: in the first, one party decides about reliance and the other party decides about breach; in the second, both parties decide about both their reliance investments and the decision to breach or per-

58. Id. at 473–83.
form. In this paper, I need only consider those situations in which the workers make an investment and the firm breaches the implicit contract. I do this for two reasons. First, since the focus of this paper is on the potential for underinvestment by workers when there is a threat of hostile takeover, the effect is easiest to analyze when we only have investment by one party. Second, given that I am focusing on takeover as a breach of trust, it is logical to examine situations in which the worker is the innocent or nonbreaching party. Here, the worker does not breach the implicit contract.

Let us now explore the key aspects of Shavell’s model, noting the similarity of his model to the breach of the implicit contract resulting from a hostile takeover. Rather than repeat the mathematics of Shavell’s article in full, I shall merely reduce Shavell’s formal theory to the intuition. Interested readers are directed to Shavell’s work for the formal model.

Reliance: In Shavell’s model, the investment made by the innocent promisee is referred to as “reliance.” In other words, the promisee relies on the contractual promise and invests in the relationship. This is represented by $r$, where $r > 0$. Shavell’s model endogenously determines the level of reliance. That is, the promisee determines how much to invest in the contractual relationship based on a number of factors, including the measure of damages available should the promisor breach the contract. I shall refer to the firm-specific investments made by the workers as reliance investments. And workers implicitly rely on management to compensate them in the future for such investments.

Contingency: The contingency is an event that occurs after the contract has formed, but before performance of the contract. In Shavell’s model, contingency can be variously interpreted. One possible interpretation, similar to the example of the sale of a car above, is that the contingency is an exogenously determined value of an outside bidder for product in the contract. In our example with the sale of the car, $C$ was the outside bidder. In Shavell’s model, the outside bid is exogenously determined. Another way to interpret the contingency might be as the exogenously determined costs of production for the promisor. For example, say that $X$ contracts to purchase a desk from $Y$ for $200. At the time of contracting, $Y$ expected the desk to cost $100 to produce. Prior to production, however, the costs of desk materials exogenously increased to $300.

59. Id. at 484–87.
60. Id. at 470.
61. Id. at 474.
62. Id.
In Shavell’s model, the contingency occurs with some positive probability $p$.\(^{63}\)

In the context of hostile takeovers, we can think of this contingency in a straightforward way. The contingency here determines the value of a third party over the assets of the target firm. Therefore, the third party might become a bidder for the assets should its valuation be sufficiently high.\(^{64}\)

**Breach set:** Shavell defines the breach set as the set of contingencies in which the contract will not be performed.\(^ {65}\) In the context of takeovers, the breach set is simply the set of all contingencies in which a third party benefits by purchasing the assets of the target, triggering a breach of the implicit contract between the incumbent and the workers. The breach set—in both Shavell’s model and my analogy—is endogenously determined.

Shavell examines how different measures of contractual damages affect both the amount of reliance investment by the promisee and the efficiency of the breaching behavior of the promisor.\(^ {66}\) Each party maximizes their own expected position taking into account the possibility that the contract will be breached. The level of reliance and the breach set, therefore, are determined by the Nash equilibrium behavior of the two parties. Similarly, in the context of hostile takeovers, workers will make firm-specific investments, $r$. But the decision to invest will be taken factoring in the probability of a hostile takeover.

A Pareto efficient, complete contingent contract maximizes the sum of the expected values of the contract to both parties. In such a contract, there is both efficient breach and efficient reliance. Shavell defines efficient breach here in the usual context: default in a contingency occurs if and only if it would raise the sum of the values enjoyed by the parties, taking into account the value of the new party’s bid.\(^ {67}\) Efficient reliance is the level of reliance that maximizes the size of the total pie, net of investment costs.

Let us proceed to consider compensation for workers for the irreversible firm-specific investments they made in period two. This compensation, I argue, is analogous to the measure of damages in Shavell’s model. Shavell defines damages, $d$, as the damage measure determining

\(^{63}\) The function $p(.)$ is differentiable and given exogenously.

\(^{64}\) Again, I adopt the same general terminology as Shavell’s model.

\(^{65}\) Shavell, *supra* note 52, at 472–73.

\(^{66}\) *Id.* at 482 (Proposition 5).

\(^{67}\) *Id.* at 475.
how much the breaching party pays to the innocent party.\textsuperscript{68} In Shavell’s model, this could be a function of the contract price, the reliance investment made, or the values enjoyed by the promise under both breach and performance.\textsuperscript{69} I define compensation, $c$, equally simply. It measures the amount paid to the workers following a hostile takeover that expropriates their rents. The exact value of the compensation and its source will be discussed below, but in the meantime, it is sufficient to say that workers are compensated for their investments that were not explicitly contracted for. Following a description of the damages measure in Shavell’s model, I shall assume that the compensation is not a function of the contingency itself, but rather of the breach. In the context of my analysis, this means that the level of compensation paid to the workers is not explicitly tied to the third-party value of the firm.

The equilibrium behavior of the parties can now be characterized under different measures of compensation. First, I will spell out what happens in the analogy when there is no compensation given to workers for making firm-specific investments early in their careers. This is the equivalent of having no damages for breach of contract. The findings are intuitive. Second, I shall discuss the analog of the expectation measure of damages. While this measure generates Pareto efficient takeovers (i.e., efficient breach by promisors), it also encourages overinvestment by workers (promisees). Third, I shall discuss other measures of compensation, highlighting the fact that there is no measure of ex post compensation that can encourage both efficient takeover behavior and efficient reliance by employees.

(i) No Ex Post Compensation Given

Although Shavell begins with an analysis of expectation damages, we should first understand what happens in a world with no compensation. In my analogy, nothing prevents or dissuades attempts at hostile takeovers. Therefore, in the event a firm breaches its implicit obligations, shareholders can expropriate the rents accrued from any reliance investment made in earlier periods. This high likelihood of breach generates two highly intuitive findings:

1. \textit{We will observe too many (inefficient) hostile takeovers}. This finding fits comfortably with the natural analog of Shavell’s finding that, in a world with no damages, breach of contract

\textsuperscript{68} Id. at 476.

\textsuperscript{69} Id.
will occur too often.\textsuperscript{70} In the context of hostile takeovers, the ability to expropriate the rents of the workers means that the corporate raiders can acquire firms at a lower price than is socially optimal. These acquisitions, however, will not generate allocative or productive efficient situations. The breach set is suboptimally large. That is, takeovers occur more often than would be Pareto efficient.

2. \textit{Under these circumstances, workers will not undertake a socially efficient amount of firm-specific investment.} It is clear from this model that workers largely view firm-specific investments as an investment that only pays off if no takeover occurs. Therefore, in a world where the workers receive no reward for their investments, they will fail to invest optimally.

The implications of a world without compensation is a central concern of Shleifer and Summers (and of Blair and Stout).\textsuperscript{71} In a world where no compensation accrues to workers in the event of a hostile takeover, we will observe too many hostile takeovers and too little investment by workers.

(ii) Expectation Measure of \textit{Ex Post} Compensation

We turn now to compensation that reflects the “expectation” of the workers. The expectation measure aims to put the innocent party in the position he or she would have occupied had the contract been performed. Shavell’s model proposes that the expectation measure of damages will result in conditional efficient breach.\textsuperscript{72} That is, the breaching party will only breach the contract if it is socially optimal to do so. In the context of an alternative higher bidder, the breach will only occur if it is socially efficient from an allocative perspective. Similarly, in the context of contingent production costs, the breach will only occur if production is no longer socially efficient.

To put this in the context of a hostile takeover, the breach of the implicit contract will only happen when the shareholders’ gains exceed the workers’ “expectancy.” If, in the event of a takeover, bidders must compensate workers for the \textit{full value of their expectation}, they need to factor this additional cost into their hostile takeover bid. Shareholders will therefore internalize this additional cost. Essentially, a compensation

\begin{itemize}
\item \textsuperscript{70} Id. at 481.
\item \textsuperscript{71} See supra Parts I and II.
\item \textsuperscript{72} Shavell, supra note 52, at 478 (Proposition 2).
\end{itemize}
scheme that reflects the expectation measure will take the social consequences of the takeover into account.

This analysis indicates that an \textit{ex post} compensation scheme in which workers’ expectations are fully realized will generate efficient takeovers. The breach set is optimal: only those takeover bids in which the value of the outside bidder is sufficiently high will result in takeovers. Those situations in which the outside bidder tried to merely generate private (but not additional social) value by expropriating wealth will not result in takeovers.

The efficient takeover—or efficient breach—aspect of this story is, indeed, a positive one. Unlike the world with no compensation, this policy of compensating workers the full value of their expectation means that a takeover will only occur when the outside bidder has a higher valuation of the assets than the incumbent. Therefore, a bid only takes place when the reallocation of assets is socially efficient. That is, if we are concerned about the expropriation of employees’ rents, we can avert the problem of socially inefficient hostile takeovers by requiring shareholders to compensate employees.

There is, however, a less positive angle to this story. Indeed, by plugging up one leak, we expose another. By finding a solution to our efficient takeover story, we generate a different problem. Instead of being concerned about underinvestment by workers, we should now be concerned about overinvestment. Shavell finds that expectation damages for breach of contract will encourage reliance investments that exceed the Pareto efficient level.\textsuperscript{73} The reliance investment, $r$, is chosen to maximize a function where—irrespective of whether a breach occurs—the promisees receive the full expectation value of their investment. Shavell shows that under sensible conditions\textsuperscript{74} the promisee chooses a level of reliance, $r_\ast$, that is greater than the socially optimal level of reliance, $r_\ast$.\textsuperscript{75}

The reason for this overreliance by promisees follows logically. In a world that fully compensates promisees for their reliance, promisees do not take into account the possibility of breach. Instead, they act as though they are insured against the potential losses that might accrue in the event of an efficient breach. As a result, if workers are compensated for the expectation value of their firm-specific investments, they will overinvest in such investments. What does such overinvestment look like here? One possible problem that may be created is that, rather than investing in their

\textsuperscript{73} \textit{Id.}

\textsuperscript{74} The result holds under the usual assumption of diminishing returns to the buyer’s investment. \textit{See id.}

\textsuperscript{75} \textit{Id.}
human capital more generally, workers might choose to invest too heavily in investments that are valuable only in the context of the firm. For example, workers might pour their efforts into learning processes that have little value in the broader working environment. From a social perspective, this may be seen as a misallocation of investment in human capital.

Shavell’s proposition that expectation damages will result in overinvestment by workers (promisees) illustrates a general result of trying to control too many variables at once with just one instrument. We wish to generate both efficient takeover behavior and efficient investment behavior. While a compensation scheme that protects the expectation interest of the employees may help generate efficient takeover behavior, we are exposed to the opposite problem from which we started: workers will overinvest. The overreliance by workers in firm-specific investments will be reflected in other measures of compensation.

(iii) Reliance Measure of Ex Post Compensation

Shavell also discusses that the reliance measure would provide for a damages measure that compensates the promisee for the amount of investment made in reliance on the performance of the contract. In the context of a hostile takeover, the workers would be compensated for the monetary value of their investments, not the expectation value of those investments.

Shavell finds that protecting the reliance interest leads to a different problem. As with the no compensation story, breach occurs more often than would be Pareto efficient. As with the expectation story, however, the level of investment made by the promisee is too great. In the context of hostile takeovers, neither problem—that is, neither the problem of inefficiently frequent takeovers, nor the problem of inefficiently low reliance investment—can be solved by using a compensation measure that reflects the reliance interest. When we compensate by protecting the reliance interest, we see too many takeovers because the costs generated by the potential expropriating of workers’ rents is not fully taken into ac-

76. Id.
77. In their classic 1936 article, Fuller and Perdue discuss three interests that contract law may seek to protect: the restitution interest, the reliance interest, and the expectation interest. Lon Fuller & William Perdue, The Reliance Interest in Contract Damages, 46 YALE L.J. 52 (1936). Cooter and Ulen also discuss the opportunity interest, but we will not address this here. See generally ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS (6th ed. 2011).
78. Shavell, supra note 52, at 479 (Proposition 3).
79. Id.
80. Id.
count by the corporate raiders. Additionally, the compensation scheme encourages workers to overinvest in firm-specific investments.

Shavell finds the expectation measure to be Pareto superior to the reliance measure.\(^{81}\) In other words, rather than “repaying” workers for their value of their reliance investments, it is socially beneficial to “reward” workers for the expectation value of their reliance investments. Nonetheless, while the expectation measure of compensation is superior, it still generates a problematic solution of too much firm-specific investment. In the next Part of the paper, I will address aspects of this model that do not necessarily comport with the reality of compensating workers following a hostile takeover, noting the real-world differences between contractual damages and compensating employees for expropriated rents.

IV. LIMITATIONS OF THE COMPENSATION–DAMAGES ANALOGY

In this Part, I will briefly consider limitations of the compensation–damages analogy. First, I discuss the possibility of \textit{ex post} renegotiation. Second, I look at some of the practical differences between Shavell’s measures of damages and compensation paid to workers in the event of a hostile takeover. Third, I distinguish the argument of overreliance presented here and the argument of managerial and worker entrenchment in existing literature.

A. Ex Post Renegotiation

A common result in the law and economics literature indicates that the problems discussed above evaporate in a world with costless renegotiation. Shavell’s model does not allow for the possibility of renegotiation after the parties recognize the possibility of nonperformance. If it were costless for the buyer to negotiate with either the seller or the new buyer, then a simple Coasian analysis would dictate and result in the efficient solution irrespective of the default remedy chosen in law.\(^{82}\) Similarly with hostile takeovers, even though the breach here is a breach of trust, if the workers could costlessly renegotiate with either the old shareholders or the new outside bidders, a more efficient solution could be reached.

Some commentators have made the point, however, that while \textit{ex post} renegotiation will generate efficient breach, it is not necessarily a panacea to all contracting problems. For example, Richard Craswell

\(^{81}\) See id. at 482 (Proposition 5).

notes that ex post negotiation “comes too late to correct any distortion in these reliance decisions.”

That is, these reliance decisions differ greatly from the types of situations that are covered by mitigation of loss in contract law. Similar points about the inability of renegotiation to cure overreliance have been made by Lewis Kornhauser and, more formally, by William Rogerson. Rogerson’s analysis illustrates that, in our analogy, workers will still engage in too much reliance despite costless ex post renegotiation if they can negotiate for an amount greater than the compensatory level.

But, even if costless renegotiation were a cure-all, the likelihood of such a frictionless world of dickering is low. Negotiation is rarely costless. Instead, workers fail to invest in the firm at an optimal level because it was not possible for the workers and the firm to explicitly contract over initial investment with the firm. Even when negotiation is not costly, there are numerous explicit ex ante contracting mechanisms that could be used to solve this problem. The ex post negotiations might create the same types of transaction costs (e.g., negotiation over worker investments going forward), or they may be different types of transaction costs (e.g., coordination problems with multiple workers). For our purposes, the likelihood of costly renegotiations between workers and new management, especially following a hostile takeover bid, is not negligible.

B. Practicality and Compensation for Employees

There are, of course, a number of practical differences between the damages measures discussed in Shavell’s model and my proposed types of ex post compensation for displaced employees. While there are some


84. Courts require an innocent promisee to mitigate their own losses following a breach of contract. Contract law will not compensate for wasteful expenditure after a breach. To be clear, the wasteful expenditures described here all occur before the breach. Shavell does not discuss whether the overreliance in his model should be considered a “waste” that should be mitigated or something the courts should take into account in assessing damages. A corollary of Shavell’s model, however, is that if the overreliance is taken into account, and damages were lower than the compensatory level, the level of breach would be socially excessive. That is, we would have inefficient breach. See, e.g., id. at 657–59; Robert Cooter, Unity in Tort, Contract, and Property: The Model of Precaution, 73 CALIF. L. REV. 1, 32 (1985); Charles J. Goetz & Robert E. Scott, The Mitigation Principle: Toward a General Theory of Contractual Obligation, 69 VA. L. REV. 967, 973–75 (1983); Donald A. Wittman, Optimal Pricing of Sequential Inputs: Last Clear Chance, Mitigation of Damages, and Related Doctrines in the Law, 10 J. LEGAL STUD. 65, 77–78 (1981).


86. See, e.g., Gavis, supra note 40; Macey, supra note 45.
difficulties in applying Shavell’s model of expectation damages to real contracts cases, the metric of expectation damages seems a great deal simpler in contracts cases than in calculating the expectation value of compensation to workers for their firm-specific investments. If the firm-specific investment is not verifiable by a third party, then how can we provide ex post compensation to workers for their noncontractible investments? Shavell’s model rests on being able to perfectly realize the buyer’s value of the contract being performed, but this assumption is more difficult to reconcile with reality in the context of compensating workers for prior investments. The point remains, however, that even if we could determine the amount invested by the workers, we could not achieve efficient breach and efficient reliance.

If the value generated by workers’ firm-specific investments could be determined, then a lump-sum payment to the workers as a whole could perhaps be given. But the problem of how to divide this payment among workers would arise. In the event that we cannot identify which workers actually did invest, we will end up with a free rider problem, where workers will not invest in firm-specific investments. This free rider problem would perhaps strongly mitigate—or, most likely, dominate—any potential issues of overreliance.

C. Entrenchment

Readers may wonder why the effect of ex post compensation explored here is not merely the same mechanism as managerial (or employee) entrenchment that can also lead to over investment by the managers (or employees). A difference, however, exists between ex post compensation and managerial entrenchment. This is because managerial entrenchment is more likely to be a problem in firms where the manager has control over the firm and can use the firm's resources to benefit himself, whereas ex post compensation is more likely to be a problem in firms where the manager is not in control and cannot use the firm's resources to benefit himself.

87. This idea of being able to determine this value has been critiqued more generally. See, e.g., Thomas Ulen, *The Efficiency of Specific Performance: Toward a Unified Theory of Contract Remedies*, 84 Mich. L. Rev. 341 (1984).

compensation and entrenchment mechanisms in that, with entrenchment mechanisms, managers actively try to make it more difficult to remove them in the event of hostile behavior. The entrenchment measures described in the literature are deliberate actions on the part of management and workers to deliberately obstruct takeovers. In the analogy with Shavell’s model, workers are merely responding to their legal claim to compensation in the event that their implicit contract with the firm is breached. This is a far more passive response to the legal or political framework than mechanisms such as poison pills, parachutes, or—more relevantly here—employee ownership, which can be used as a successful antitakeover device, as employees often vote to maintain the incumbent management team when faced with a hostile takeover bid.

V. CONCLUSION

Margaret Blair and Lynn Stout’s team production analysis from fifteen years ago presented a new framework for economists and lawyers to think about corporate law. Their analysis puts forward the argument that if corporate law fails to take account of other stakeholders, the likelihood that these stakeholders will make firm-specific investments is reduced, which will be inefficient in the long run. Blair and Stout’s argument is a broader take on a previous argument that suggests workers will not make firm-specific investments in the firm if their rents will be expropriated in the event of a hostile takeover. Commentators have suggested that workers should be compensated ex post in the event of such a takeover to incentivize firm-specific investments.

My paper draws on a familiar result from the law and economics literature of contracts to illustrate that this compensation for breach of the implicit contract between workers and owners is analogous to damages for breach of explicit contracts. Shavell’s 1980 paper demonstrates that a damages measure that encourages efficient breach and efficient performance will have a negative side effect: overreliance. Here, in the context of takeovers, attempts to cure the problem of too little investment by workers with ex post compensation will lead to a problem of too much investment by workers.

While my paper is narrow in its focus, it divines two broader points. First, while this paper has focused on hostile takeovers and their effect

89. See sources cited supra note 88.
on employees, my broader points relate to any relationship of trust where shareholders can breach the implicit contract and expropriate the stakeholders’ rents. While some of these relationships will undoubtedly rely heavily on explicit contractual provisions to allay stakeholders’ concerns and perhaps dissuade hostile bidders (e.g., change of control provisions in credit agreements), frictions remain that contracting might not be able to solve. Further, the expropriation of rents here need not be as a result of a hostile takeover. Other activist measures that seek to put the shareholder first at the expense of other stakeholders may have a similar effect of disincentivizing firm-specific investments.

Second, my narrower point made here in this paper does not appear to have been made before. This perhaps suggests that corporate law can learn from the contracts literature, especially given the dominance of nexus of contracts theory of corporations. Similarly, there is still scope for scholars in law and in economics to learn from each other. In the economics literature on contracting, the papers by Shavell and other authors who explore contractual damages measures are rarely mentioned.

94. A scan of the reference sections in two leading textbooks in contract theory for economics reveals no mention of Shavell’s work on damages. See generally Patrick Bolton & Mathias Dewatripont, CONTRACT THEORY (2004); Bernard Salanie, THE ECONOMICS OF CONTRACTS: A PRIMER (1997). Further, other works by law and economics scholars looking at the economic effects of contractual damages such as Craswell, supra note 83, and Rogerson, supra note 85, are not referenced in these economics texts.