

REPUTATIONS AND THE MAGHRIBI TRADERS The cost of providing incentives using reputations also depends on the other opportunities that the parties may have. An agent whose outside opportunities would remain good even if caught cheating has relatively little to lose from cheating, so motivating that person tends to be costly. On the other hand, an agent whose business opportunities lie with a small group of principals who communicate among themselves must worry that actions that damage his or her reputation will result in the loss of a large volume of valuable business. These agents are more likely to resist temptations to steal or cheat, even if the wage for the particular job is low. In other words, it is less costly to motivate these agents than to motivate agents with better outside opportunities.

The example of the Maghribi traders cited earlier illustrates this point.⁹ The evolving pattern of agency arrangements among traders in the western Mediterranean in the eleventh century can be attributed in part to the changing costs of motivating different kinds of agents. In the ninth and tenth centuries, when the volume of trade was lower and the reliability of communications was poorer, merchants commonly traveled with their own goods. Relying on a personal agent was hazardous, because the agent "could easily have disappeared with the capital or cheated in business conducted in far-off markets where none of his associates had any control."¹⁰ By the eleventh century, however, an extensive network existed in the Muslim Mediterranean by which merchants provided references for one another, so that the loss that any single merchant stood to suffer from a loss of reputation grew much larger. As a result of these changes, the merchants found it more economical to rely on overseas merchant-agents. The merchants in towns A and B would entrust their goods to one another for sale rather than relying on a personal agent from the originating merchant's home port. This change may be explained at least in part by the reduced cost of ensuring the honesty of the overseas agent. An economic analysis that focuses on resource costs alone cannot give an adequate account of these evolving trade relationships.

CAREER PATHS IN FIRMS Career paths are another element that was missing from our simple efficiency wage model. Our simple model gave only minimal attention to the role of time by incorporating the number of times N that the worker expects to be employed. In a more complete model—one in which the incentives for loyalty, honesty, and hard work are provided by the promise of high future wages—a pattern of pay that is rising over the worker's career provides incentives more effectively. Many companies have virtually institutionalized a career pattern in which, for successful workers, earnings rise throughout the worker's career, perhaps eventually reaching a point where they exceed the worker's marginal product. Early in a worker's career, when his or her accumulated investment in the company and in his or her career is low, the worker is placed in a job of low responsibility, where the work is relatively more routine and easily monitored and errors can be corrected. After the worker is better trained, has invested in learning the specific business, and when the reward for this diligence is nearer at hand, then the worker is assigned to less routine tasks that may also be more difficult to monitor. We saw earlier in this chapter that high pay is a substitute for close monitoring, so the relationship between pay and responsibility is just as expected. (Note that this analysis is complementary to the explanation of the pattern of rising wages with experience in terms of screening offered in Chapter 5 and the bonding explanation given in Chapter 6.)

PRODUCT REPUTATIONS AND BRAND NAMES We have emphasized the applications of efficiency wage theory to the incentives for employees, agents, or business partners to behave honestly. The principles we have described have broader application than that, however. Benjamin Klein and Keith Leffler have emphasized that thin profit margins are the enemy of quality in markets for goods and services, too, because they tempt individual producers to cut their quality and earn higher profits until consumers recognize the change. The firms could then exit the market. If the product is recognizable by consumers, however, and if the product margins are high, the value of staying in the business can outweigh any short-run profits from degrading the product quality.

Where competition keeps prices relatively low or where certain products are replaced so frequently that customer dissatisfaction with the old product is irrelevant, brand names that cover a whole product line can provide another way to establish a reputation for quality. A homeowner may buy this year's model of a Black and Decker drill if he or she is satisfied that last year's model, purchased by neighbors, was of good quality and if the power screwdriver of the brand that the homeowner purchased two years ago is still working well. The reputation value of a brand name leads profitable firms with established brands to work hard to maintain quality.

REPUTATIONS AS CONTRACT ENFORCERS

Successful commerce requires that businesspeople be able to count on one another to honor their agreements and, as the Adam Smith quotation emphasizes, the reputation mechanism has long been one of the most important mechanisms for ensuring that contracts are honored. In this section, we examine this idea in more detail. We conduct this part of our analysis using game theory, which makes it possible to examine more systematically limitations of simple incentive systems and how some of those limitations can be overcome by more complex and sophisticated arrangements.

The Elementary Theory: Reputations in Repeated Transactions

As discussed in Chapter 4, for many kinds of business transactions—those that take place over an extended period of time in particular—conditions arise for which no plans have been made. Transactions can be classified according to how decisions are made in these circumstances. In spot market transactions, there are no long-term agreements and little likelihood of significant changes in circumstances before the contract is executed. When the unexpected does occur, the parties bargain among themselves about how to respond. An alternative to spot markets is to establish a relational contract, for example, a hierarchy or authority relation in which a manager evaluates the facts and alternative courses of action and then instructs the other parties on what to do. Sometimes, long-term contracts allow one party to exercise discretion without establishing an authority relation. For example, a homeowner may delegate some degree of authority to a remodeling contractor to make decisions about how the remodeling job should be done.

These abstract descriptions of contracting practices apply to many concrete situations. When a person becomes an employee of a firm, he or she typically agrees to accept whatever direction is given within somewhat nebulous "customary limits" in exchange for a fixed hourly wage or for a salary. The employee's supervisor is the one with authority. The supervisor can exercise discretion in assigning tasks, and the employee must rely on the supervisor to do so fairly. In our home remodeling example, even if the contract is unusually precise, it will not specify what the contractor should do if rain delays the start of work, or if fixtures that were selected from a catalogue are no longer available, or if the dimensions on the drawings contain an error. The

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re what has been left out of the contract
 person functioning as expert, committed member
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yet the party with discretion does not have "authority" over the party without it...
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⁹ This account is based on Avner Greif, *op. cit.*
¹⁰ C. M. Cipolla, *Before the Industrial Revolution* (New York: Norton, 1980), 198, as quoted by Greif.

**MacRents:
Efficiency Wages in the Fast-Food Business**

An empirical implication of efficiency wage theory is that a decrease in the intensity of supervision will result in an increase in the optimal efficiency wages. The fast-food restaurant business offers a test of this prediction.

The fast-food business in the United States involves a number of chains: McDonald's, Burger King, Wendy's, Jack in the Box, Kentucky Fried Chicken, Arby's, and Roy Rogers are among the most familiar. Each of these has large numbers of outlets, some of which are owned and operated by the parent firm, and some of which are owned and managed by independent businesspeople operating under franchise agreements.

The two types of outlets appear very similar. They have the same menus based on the same recipes, they are architecturally and technologically similar, they are geographically similar, they draw employees from the same local work forces, they have similar pricing policies, and so on. However, the franchise units are managed by their owners, who set the wages, fringe benefit levels, and work rules and conditions in their individual outlets, make their own hiring and firing decisions, and claim the profits and losses of their operations. In contrast, the company-owned restaurants are managed by salaried employee-managers, with wages and benefits being set by district managers.

A key part of the outlet manager's job is to monitor and train the assistant managers and supervisors as well as the actual nonmanagerial staff of the restaurant. Standard incentive arguments would suggest that a franchisee, who collects the residual profits, will be much more highly motivated to monitor intensively and train effectively than will a salaried manager. (The fact that franchises tend to be about five times more profitable than company outlets supports this view.) In turn, efficiency wage theory then suggests that the company will choose to pay higher wages to the workers in its outlets than will franchisees in theirs. The higher wage makes the job more valuable and losing it more painful. This offsets the lower probability of being fired for cause that results from weaker monitoring and so reduces the amount of surliness, carelessness, absenteeism, shirking, theft, on-the-job drunkenness, and so on from what they would otherwise be.

The technology and delivery systems of the fast-food business have been chosen to minimize the chance that a bored teenage worker can cause any great problems. This suggests that the effort the manager devotes to the supervisors and assistant managers may be especially important and that the efficiency wage differential for these employees in the company outlets should perhaps be relatively higher than the differential for regular employees.

These predictions are supported by data from two surveys of fast-food restaurants (one of workers and supervisors in a sample of McDonald's, Kentucky Fried Chicken, Arby's, and Roy Rogers outlets in 1982, the other of managers in a sample of McDonald's, Burger King, Kentucky Fried Chicken, and Wendy's restaurants in 1985). In the first survey, employees hired into a given job started at essentially the same wages in both types of outlets, but the wages grew much faster over time for the supervisors in the franchise outlets than for those in the company-owned stores and somewhat

more rapidly for nonmanagerial workers. The result was that earnings for supervisors were a sizeable 8.9 percent higher in company restaurants and a statistically (if not economically) significant 1.7 percent higher for full-time nonmanagerial workers. The second study examined only starting wages, but the company restaurants were only two thirds as likely to start new employees at the minimum wage as were the franchise outlets. Moreover, company-owned outlets provided more generous fringe benefits, further increasing the pay differential. The biggest difference in benefits was in the provision of free meals. Preventing employees from helping themselves to a free meal is very difficult to control. If it is difficult to induce sufficiently careful monitoring to prevent employees from stealing food, it may be best simply to permit it explicitly.

Based on Alan B. Krueger, "Ownership, Agency and Wages: An Examination of Franchising in the Fast Food Industry," Working Paper 3334, National Bureau of Economic Research (1990).

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homeowner must rely on the contractor to react appropriately to the inevitable sequence of unforeseen conditions that were not specified in the original contract. In each of these situations, at least one party (and frequently both) must rely on the honesty and good will of the other.

The disputes that arise in these situations are often connected with ambiguity about what kinds of discretionary behavior are honest or appropriate. To start analyzing the problem, however, let us suppose that although it is not possible to specify what to do in any particular situation, it is possible for parties close to the transaction to determine whether the person with authority has done "the right thing." It is this two-part assumption that characterizes our "elementary theory." The assumption implies that we are examining a situation in which detailed contracts cannot be written, making legal enforcement difficult, but in which the parties themselves have enough information to evaluate each other's past behavior, which is a basic requirement of any system of reputations.

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OFFERING TRUST We use the box shown below to describe abstractly a transaction opportunity that may occur repeatedly. At each round—that is, each time the transaction opportunity arises—one party, called the *offeror*, can offer to trust a second party, called the *decision maker*. The formal structure of this interaction is represented in the box, which describes a **normal form game** with two players. The box shows that each player has two **strategies** at each round. The offeror's strategies are to offer

Principled

	Decision Maker	
Offeror	Honor Trust	Don't Trust
Offer Trust	V, V	-L, V + G
Don't Offer	0, 0	0, 0

trust or not. The decision maker's strategies specify what he or she plans to do if trust is offered. The entries in the box show what the payoffs will be for each combination of strategies. If trust is offered, the decision maker must then decide whether to honor that trust by behaving fairly. The box describes the parties' payoffs. The first number in each cell of the box describes the offeror's payoff, whereas the second describes the decision maker's. If no trust is offered, no transaction occurs and both parties earn a payoff of zero. If trust is offered and honored, then both parties receive a valuable payoff of V . However, there is a short-run temptation for the decision maker not to honor trust; by not honoring, he or she receives an extra payoff of G in that round. In that case, the offeror suffers a loss of L and would have fared better if he or she had not offered trust and had instead settled for a payoff of zero. We assume, of course, that V , G , and L are positive numbers.

It is important to interpret the numbers here correctly. Zero is simply a value that we have assigned arbitrarily to whatever the two parties might do if they do not share trust—the number itself has no significance except as a baseline from which other values are measured. That the value V is positive means that honored trust is more valuable to both parties than whatever happens if trust is not offered at all. The larger V is, the more the parties have to gain by offering and honoring trust. That G is positive means that the decision maker has something to gain in the short run by dishonoring trust. For example, if the decision maker is shamed by behaving dishonorably, the other gains are large enough to offset this shame. That L is positive means that offering trust entails a risk: The offeror has something to lose.

Suppose now that this normal form game were to be played only once. According to game theory, which posits that each player is self-interested, we predict that the offeror will not offer trust and the decision maker will plan not to honor trust in case it is offered. The self-interested decision maker, if given the opportunity, would surely prefer to earn $V + G$ by dishonoring trust than to earn just V by honoring it. The offeror, recognizing the decision maker's incentives and knowing that he or she is self-interested, would therefore choose to avoid the loss of L by not offering trust. The result is that each party receives a payoff of zero, missing the opportunity to obtain payoffs of V .

REPEATED DEALINGS AND THE NASH EQUILIBRIUM Despite this unfortunate outcome, the game-theoretic solution does seem to be a reasonable description of what might happen if the situation we have portrayed were to arise among strangers who meet only once, especially if the temptation G and the potential loss L are large. If the two players are people who encounter one another in this sort of circumstance frequently, however, they might be expected to develop some way to overcome (the problem of trust) and enjoy the fruits of the honored trust outcome. For example, the decision maker might say to the offeror: "I would like you to trust me once to test my honor, and you would be wise to do that. After the test, base your expectations about me not on some arbitrary, pessimistic theory about how a stranger might play this game, but on how I prove myself in action. If you do offer trust, I promise always to honor it. We both know that if I should ever fail to honor your trust, you would never trust me again. For that very reason, it will actually be in my interest, as well as yours, to honor your trust, for only by doing so can I earn your continuing trust, which I have good reason to value."

Is this speech believable? To check its logic, suppose that earning a payoff of X every time the parties meet in the indefinite future has the same value for the decision maker as does a one-time payoff NX today. The magnitude of the number N depends in part on how frequently the parties expect to meet and on the interest rates that

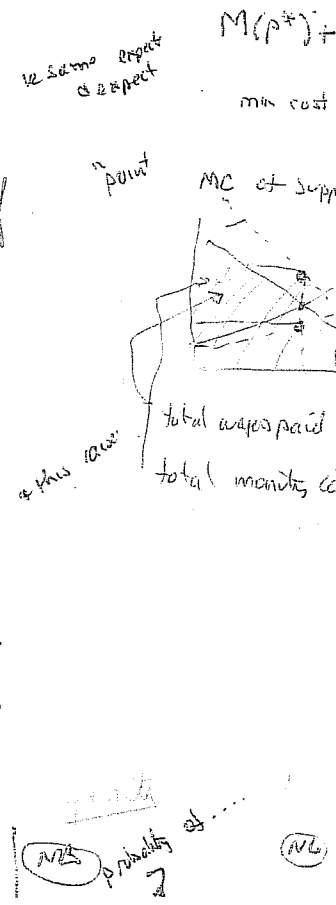
they face.¹¹ What can we expect to happen if the offeror believes the self-interested decision maker's speech and acts accordingly? If the decision maker does not honor the offeror's trust, the decision maker gains G immediately when he or she cheats but will never be trusted in the future. If the decision maker does honor trust in each period, he or she will earn a payoff of NV instead. If $NV > G$ and each party expects the other party to behave as described, then neither party could do better by deviating from the prescribed behavior. The offeror cannot gain by withholding trust: He or she expects the trust to be honored and therefore expects a payoff of V per period by offering trust, compared to 0 per period if the trust is withheld. The decision maker cannot gain by dishonoring trust: He or she expects a payoff of V per period, which is valued at NV if trust is honored in each period, but only $G < NV$ if trust is dishonored today, for then trust will never again be offered. In the language of game theory, this situation in which no party can gain by making a unilateral deviation from the prescribed behavior is called a **Nash equilibrium**.

For a pattern of behavior to be a Nash equilibrium, it means that if the parties all expect this pattern of behavior, then it is in the individual interests of each to adhere to the pattern. In many situations, especially ones where people have little experience, there is no reason to suppose that people will have the same expectations about behavior or that their expectations will be correct. If (1) all the players in the game do have the same expectations, (2) those expectations are correct, and (3) the players act in their individual best interests given their expectations, then the combination of strategies is a Nash equilibrium.

One important difficulty with using a Nash equilibrium to predict social behavior is that there may be more than one. In the game we have portrayed, a second Nash equilibrium strategy combination is for the offeror never to offer trust and the decision maker never to honor it. A third possible Nash equilibrium is for the decision maker to promise to cheat only every second time that trust is offered and for the offeror to offer trust at every round as long as the decision maker never cheats in two successive rounds. If $L < V$ and the rounds are frequent, neither player can gain by changing his or her strategy, so this strategy combination is also a Nash equilibrium. The hypothesis of Nash equilibrium rules out some patterns of behavior but does not always lead to a unique prediction about what the outcome will be.

REPUTATIONS Let us return now to the first Nash equilibrium that we described, in which the offeror continually offers trust for as long as the decision maker continues to honor it. We studied this situation assuming that the offeror at each round is the same person, but that is not really necessary for the analysis. If the decision maker faces a series of different offerors who each offer trust only if the decision maker honored trust when it was last offered, then the decision maker's calculation about whether to honor trust is exactly the same as if there were a single offeror. One might say that in each transaction, the decision maker honors trust in order to encourage future trading partners to offer trust or, in other words, to maintain his or her reputation for honesty. In the world of business, a reputation for honesty can be valuable because it can attract trading partners. In addition, if it is possible but costly to write detailed contracts, a good reputation can often allow the decision maker to avoid that expense as well as the use of costly and error-prone legal contract enforcement mechanisms.

¹¹ If the game is to be played an infinite number of times, the interest rate that players can earn on their investments is r per period, and the players meet at intervals of t periods, then $N = 1/(1 + r)^t - 1 + 1$. Lower interest rates (smaller r) or more frequent meetings (smaller t) lead to larger values for N . See Chapter 14 for additional details of how to make present-value calculations.



Trench Warfare in World War I: The "Live and Let Live" System

In economic applications, we usually emphasize the *financial* returns that accrue to earning others' trust. Sometimes, the most significant returns are not financial at all. A remarkable example of valuable trust among enemies is the "live and let live" system that developed between battalions of opposing armies along the trenches of the Western Front in World War I. Although the commanders of the opposing German and Allied armies wanted the troops to shoot to kill, the soldiers often behaved differently. Trust and reputations explain how this came about.

In the trench warfare of WWI, the same opposing battalions faced each other for long periods of time. Deadly fire from one side could be reciprocated by the other side. Although many of the soldiers in opposing battalions in any war would prefer to avoid exchanges of deadly fire, they cannot trust the other side to withhold its fire because each side has a strong interest in destroying the enemies' fighting capabilities. In WWI, however, the daily exchange of fire between entrenched battalions in a war of attrition offered a rare opportunity. Daily interactions could make it a Nash equilibrium for the two sides to fire in earnest only if fired upon. To achieve this outcome, each side had to demonstrate to the other its ability to retaliate if the other side initiated deadly fire, as well as its willingness not to use deadly fire without provocation.

In many parts of the front, the soldiers did achieve such a truce while still making it appear to their commanders that they were shooting at the enemy. According to Robert Axelrod's account, "During periods of mutual restraint, the enemy soldiers took pains to show each other that they could indeed retaliate if necessary. For example, German snipers showed their prowess to the British by aiming at spots on the walls of cottages and firing until they had cut a hole. Likewise, the artillery would often demonstrate with a few accurately aimed shots that they could do more damage if they wished."

Eventually, the Allied commanders uncovered these tacit truces and took steps to end them. They initiated a series of commando raids on the German trenches that brought retaliation from the Germans and more retaliations by the opposing Allied soldiers, until the accumulation of fire made the "live and let live" system untenable.

Source: Robert Axelrod, *The Evolution of Cooperation* (New York: Basic Books, 1984).

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Ambiguity, Complexity, and Limits of Reputations

Although it may not be possible to specify in advance in an enforceable contract how the decision maker should behave, it may nevertheless be possible for those involved to decide afterward whether the parties had behaved honorably. This assumption is sometimes problematic, however. In many cases, if it really were easy to decide what

In reality, perceptions of circumstances frequently come into conflict, and parties differ about just what is "the right and honorable thing to do." Even when parties agree about the circumstances, they may disagree about what can be done or what is likely to be effective. For many kinds of decisions, it is not possible to try out each alternative to see what the consequences would have been.

The problem we have described is compounded if there is more than one party offering trust. As difficult as it may be for a single party to know whether another has acted fairly, it is even more difficult for an outsider to the transaction to assess what has happened when there has been a dispute. In a simple reputation system, that is precisely the task that faces a whole series of outsiders to the transaction. The cost and difficulty of making those judgments, and the need for them to be made repeatedly by a series of outsiders undermines the effectiveness of a system of trust based on reputations alone. Various institutions and practices have arisen to restore some of the lost effectiveness.

CORPORATE CULTURE One way to enhance the effectiveness of a system of reputations within a group is to construct or evolve a set of workable principles and routines that create shared expectations for group members. In a large organization, the principles would help guide managers in making decisions as well as providing a set of clear expectations for everyone in the organization. Sometimes, routines evolve with no far-reaching purpose in mind, but simply represent patterns of action that have worked well in the past. In other instances, the principles take the form of explicit rules promulgated with a clear purpose in mind. For example, the San Francisco Forty Niners football team has a rule that a player in the starting lineup who becomes injured and misses some games is always entitled to return to his starting role upon recovery, regardless of how well the substitute plays in his absence. The rule is designed to keep injured players from concealing injuries. The team surely faces temptations to make "exceptions" to the rule—especially when the substitute plays very well—but exceptions would undermine the players' trust in the coaches. Without the rule, the notion of fair treatment would be far more ambiguous. What is the "fair" thing to do if the substitute plays especially well?

At Nordstrom, the department store chain, one rule is that merchandise returned by customers is always cheerfully accepted without requiring proof of purchase. To teach this rule, a story is told to trainees of a salesperson accepting without question a customer's return of an old, badly worn set of automobile tires, even though Nordstrom has never sold tires! The story helps to establish a rule that everyone can understand and makes clear to trainees the strong commitment to customer satisfaction that is a hallmark of Nordstrom's operations.

From this perspective, corporate culture is the set of routines for decision making and shared expectations that employees are taught and the stories and related devices used to convey those expectations. In Chapter 4 we emphasized the role of routines and shared expectations for coordinating action within the organization. Here we emphasize a different function: The culture provides a set of principles and procedures for judging right behavior and resolving inevitable disputes. Because the principles have to be simple to be communicated effectively to newcomers to the organization and because they have to be adapted to work in the typical circumstances that the organization faces, no one culture can work well for all organizations. This helps make some limited economic sense of the "clash of cultures" explanations that are often cited as a reason that two organizations with very different styles or histories experience difficulty when they try to merge their operations.

REPUTATIONS AND THE LAW Robert Ellickson has taken the culture argument even

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accumulated experiences ("institutions")

a. i. institutional effects of organizations mechanisms to detect behaviors that are undesirable to it or its reputation.

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maintain a good reputation is more powerful than are legal sanctions in settling community disputes.¹² He reports that in Shasta County, California, a ranching and agricultural area, the principles actually used to compensate for damages caused by stray livestock, for example, are not those imposed by the relevant laws, but instead are ones that were evolved over generations in the local community. There is no legal enforcement of the rules of neighborly relations—just the perceived need by residents to maintain a good, trustworthy image in the local community.

In fact, most contractual disputes never reach a court of law. The parties work out informal ways to resolve their differences, and these mechanisms are supported at least as much by reputation considerations and by the expectations of future gains as by the threat of legal action.

THE "END GAME" PROBLEM A major constraint on reputational enforcement mechanisms is that the horizon over which the relationship is expected to continue must be relatively long if the value of the reputation is to exceed the gain from cheating. We saw this in extreme form in the previous game: If there is only a single interaction, then trust will not be extended because it is sure to be violated. Thus, if there is a last time the parties will interact, and the parties know they have reached this point, they will fail to achieve the gains that are potentially available. Moreover, if they know they are approaching the end of the relationship, the returns to maintaining a reputation are seen to be small and may not be enough to prevent trust from being violated. In these circumstances, other mechanisms may have to come into play if inefficiency is to be avoided.

One possibility is to move to more formal incentive mechanisms. For example, it has been suggested that concern with their reputations and their consequent career opportunities is a major check on managers' temptation to behave opportunistically. As a manager approaches retirement age, however, these career concerns ought to weigh less heavily. Thus, it may be advisable to increase the use of explicit incentive pay for managers as they approach retirement. A recent study by Robert Gibbons and Kevin Murphy found exactly this pattern in the compensation of a large sample of corporate chief executive officers (CEOs) in the United States.¹³ Total compensation of the CEOs in this sample became more responsive to their firms' stock market performance as they neared their retirement ages.

Another kind of solution to the end game problem is the sale of businesses. The founder of a business, nearing retirement, finds it valuable to maintain the reputation of the business to attract a higher price from potential buyers. This can lead the business to act as if it had a much longer horizon than its founder or its executives.

The end game problem is also commonly experienced by companies in bankruptcy. Bankruptcy attorneys commonly observe that the customers of bankrupt businesses claim that the goods delivered in the last days of operation are of inferior quality and refuse to pay full price for them. With the bilateral relationship nearing its end, attitudes toward payment harden, and disputes to be resolved in court become more likely.

The Advanced Theory: Reputations Aided by Institutions

One of the ways that people enhance the effectiveness of a system of reputations is by narrowing the range of people with whom they do business. Frequent transactions

if they are all of similar magnitude allow trust to flourish. In modern societies, however, people have specialized occupations and specialized skills. Many specialists, such as plumbers, furniture repairers, or automobile salespeople, interact with individual customers relatively infrequently. Buyers may purchase frequently from the same sources, but the availability of competing suppliers still creates impersonal transactions that are hardly better than the outside alternatives.

Business and legal institutions of various sorts can help to fill the gap. Legal institutions replace the system of reputations altogether. Parties who rely on the legal system count on the threat of a lawsuit, rather than that of a bad reputation, to ensure full compliance with the contract's terms. The legal system, however, has many disadvantages for contract enforcement. Because it is a general system, it relies on general rules that may be poorly tailored for the particular industry where the dispute arises. Legal procedures are often cumbersome, time consuming, and expensive. Furthermore, legal rules based on historical precedents may be unresponsive to changing technologies and other changing realities. Judges and juries may often lack the expertise to evaluate industry disputes based on technical issues well enough to apply legal rules appropriately. In international disputes, courts sometimes lack the authority to enforce their decisions. Also, throughout history, corrupt and biased judges and outside political influences have added to the costs and the apparent randomness of court rulings.

For all these reasons, private institutions have frequently been more important than legal ones for establishing standards of behavior, ensuring contract compliance, and resolving disputes. Often, the private institutions work by buttressing the reputation system itself.

FROM MEDIEVAL PRIVATE JUDGES TO MODERN RATING AGENCIES In Europe, before the rise of the nation-state, merchants developed a system of private laws—the *lex mercatoria*—and employed private judges to resolve disputes. The merchant law often differed from the generally prevailing church law on the same issues. Merchants at the time depended on one another for many services, such as security while traveling or assistance in handling goods in foreign ports. Good standing in the community of merchants was essential to conducting business. The system of merchant law provided an evolving standard of behavior that was more responsive to merchant needs than was the church law. The system of private judges making pronouncements about disputes greatly simplified a third-party merchant's problem of interpreting a dispute between two other merchants to reach a judgment about their respective reputations. The crucial tasks of deciding who is right and communicating to other merchants the identities of offenders were handled effectively by this system.¹⁴

Throughout history, many devices have been used to inform the public when a merchant is no longer in good standing. In colonial America, the stock and pillories were used to make a public display of merchants who violated commercial law. In the eighteenth and nineteenth centuries, when whalers from different countries met at sea, they would have a party called a "gam," where the captains of the vessels would exchange information about many things, including disputes with other whalers that needed to be settled. Whalers in the United States, concentrated as they were in a few seaside communities, needed no such practices to keep informed about one another. The whalers' system of community enforcement of norms based on repeated interactions was so effective in its early years that there are no recorded cases of property disputes among whalers going to court, even though the issues of who owns

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¹² Robert Ellickson, "Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County," *Stanford Law Review*, 38 (February 1986), 623-87.

¹³ Robert Gibbons and Kevin Murphy, "Optimal Incentive Contracts in the Presence of Career Concerns," mimeo, University of Rochester (1990).

¹⁴ See: Paul Milgrom, Douglass North, and Barry Weingast, "The Role of Institutions in the Revival of Trade: The Medieval Law Merchant," *Economics and Politics*, 2 (March 1990), 1-23.

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a whale are quite subtle.¹⁵ (Should it be the first to sink a harpoon? The first to secure a flag in the whale? Can a ship harvest a whale that has been killed and flagged but is floating free or must it allow the killing ship to come make the harvest?) Only in the late nineteenth century, when petroleum products began to replace whale products did the legal system become involved in whaling disputes. At that time, rents in the whaling industry began to decline and time horizons for whalers became shorter—effects that combined to undermine the community-based system of reputations.

In modern times, the local Better Business Bureau will mediate complaints by customers against local businesses and report information about complaints against local merchants and craftsmen. Similarly, credit bureaus report information about past loans and whether they were properly repaid, and consumer agencies report survey information about various matters, such as how satisfied consumers are with the handling of their insurance claims at various companies. Disseminating this information strengthens incentives for reliable behavior. Merchants are motivated to settle complaints made through the Better Business Bureau to preserve their good reputations. People are more eager to repay loans knowing that a faulty credit rating will prevent them from borrowing again on favorable terms. A similar logic applies to insurance companies.

BOYCOTTS AND EMBARGOES: INTERNAL DISCIPLINE The main characteristic of institutions that work by enhancing the reputation system is their reliance on sanctions delivered by individuals. If applying sanctions is costly, some individuals may refuse to comply, undermining the effectiveness of the system.

Medieval merchant guilds in northern Europe were bodies made up of all the foreign merchants trading in a single town.¹⁶ A major difficulty these traders faced was that the cities in which they traded did not always carry out their contractual agreements, for example, to protect the traders against theft by locals. The only significant response that the merchants had was to refuse to trade in the offending town, but this ran into the free-rider problem noted earlier. In the major trading centers of northern Europe, especially Bruges, the trading merchants came from many different cities, and this made enforcing embargoes especially difficult. Moreover, towns faced with an embargo would try to encourage traders to free ride by offering them especially attractive deals. The guilds can be seen as an institution through which merchants coordinated their responses to cities that reneged on trading agreements.

In 1280, following a dispute over Bruges's responsibility to provide physical protection for the merchants, the guild of merchants trading in the city attempted embargo, transferring their trade to Aardenburg. The embargo, however, was defeated when Bruges offered special terms to merchants from various towns who found the absence of competing traders to their liking. In response to such failures, the town guilds united under the new, more encompassing organization—the Hansa, or Hanseatic League. If the Hansa declared an embargo on a city and traders violated the embargo, then their home city itself might be put under embargo or the offending traders might be refused access to goods from other member towns. Following another dispute, in 1358 the Hansa endorsed another embargo of Bruges, and the city responded again by offering special terms to Hansa member Cologne and nonmembers

¹⁵ Robert Ellickson, "A Hypothesis of Wealth-Maximizing Norms: Evidence from the Whaling Industry," *Journal of Law, Economics, and Organization*, 5 (Spring 1989), 83–97.

¹⁶ These guilds should not be confused with the more familiar crafts guilds, which were organizations of all the producers of a particular good in an area, for example, the weavers guild in London.

such as Kampen. With its strong internal discipline, however, the embargo was eventually successful and Bruges honored the trade charter.¹⁷

There is a danger of misinterpreting this historical episode as a mere distributive dispute, in which one party's gain is the other's loss. Actually, institutions like the Hansa which help to enforce agreements perform an important efficiency-enhancing function that helps to account for their emergence and survival. From the host city's point of view, the very ability to renege on agreements is also an inability to commit to honest behavior. That inability can be very damaging. In 1283 King Edward I of England, reflecting on the broken promises of security for foreign merchants in his country, observed that "many merchants are put off from coming to this land with their merchandise to the detriment of merchants and of the whole kingdom."¹⁸ In modern times, as in history, people can find it valuable to establish arrangements, practices, and institutions that narrow their options or enable others to enforce contracts against them because those very arrangements make them a more reliable and trustworthy business partner.

RENT SEEKING, INFLUENCE COSTS, AND EFFICIENT DECISION ROUTINES

Rents and Quasi-rents

So far, we have developed the argument in primarily nontechnical language, speaking about the economic profits of a firm or about the high wages of the worker. In economics journals, however, the general principles are most frequently couched in terms of rents and quasi-rents. A rent is the portion of earnings in excess of the minimum amount needed to attract a worker to accept a particular job or a firm to enter a particular industry. For example, a worker who ranks jobs only on the basis of wages and who is offered a job at wage rate w earns a rent of $w - \bar{w}$ if \bar{w} is the highest wage he or she can earn in any alternative employment. Similarly, if a price of β would be just sufficient to attract a firm to produce in some market, and if the quantity the firm sells is q , then the firm earns rents of $(p - \beta)q$, provided the actual price p that it can charge is greater than β . Notice that the price β is the same as the average total cost of operating in the industry, including the opportunity cost of capital as well as the costs of all the other fixed and variable factors used by the firm. Rents typically arise because of scarcity, whether natural or induced. In 1990, for example, baseball pitcher Roger Clemens was given a contract calling for him to be paid \$21.5 million over a period of four years, in each of which he would probably not pitch in many more than 40 games. There is surely a large element of rent in this pay. Clemens receives this rent because his talent is in very short supply. In turn, his employers, the Boston Red Sox, can pay him this much because they are earning rents from their exclusive franchise to present major league baseball in New England.

A quasi-rent is the portion of earnings in excess of the minimum amount needed to prevent a worker from quitting his or her job or a producer from exiting its industry. Whereas rents are defined in terms of decisions to enter a job or an industry, quasi-rents are defined in terms of the decision to exit. If the wage \bar{w} would be just sufficient to keep an employee at work at a particular job, taking into account such costs as

¹⁷ See Avner Greif, Paul Milgrom, and Barry Weingast, "The Merchant Guild as a Nexus of Contracts," unpublished working paper, Stanford University (1990).

¹⁸ *English Historical Documents*, David C. Douglas, ed. (Oxford: Oxford University Press, 1955),

professional
medical
collisions?

ostensibly the minimum
she would accept -- ?
(located better
jobs to which
...?)

charging β gives a
"normal" return -- which
is the benefit of the
outside opportunity
(highest?)
need as the min

... to see how good