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Competition and Government Policy

LEARNING OBJECTIVES

- Distinguish between the model of perfect competition and the concept of competition as an entrepreneurial process.
- Investigate the ways profit seekers might seek to restrict market competition.
- Critically analyze the argument about the anti-competitive nature of "selling below cost" and "predatory pricing."
- Distinguish the intent of antitrust policy from the actual practice of regulation.
- Convey that it may be an error to evaluate a less-than-ideal market process from an ideal-but-unattainable solution.

Competition as a Process

When we use the term *competition* in everyday language, we more often than not mean it to refer to an activity that individuals engage in. Tiger Woods is fiercely competitive in the sense that he combines his genetic endowment with hard work and forged mental toughness to compete against and defeat his opponents in golf tournaments. His goal, as is the goal of all great sports figures, has been to win and win overwhelmingly. It was no different for Ted Turner when he revolutionized television news or for Bill Gates when he lowered our costs of using computers through software innovations.

Many economists attribute a slightly different meaning to the word *competition*. For them, the economic notion of competition

represents a state of affairs. A competitive market is said to exist when these conditions are present:

Characteristics of "perfect competition."

- There is a large number of buyers and sellers so nobody possesses market power.
- Market participants possess full and complete information of alternatives.
- Sellers produce a homogenous product.
- There is costless mobility of resources.
- Economic actors are price takers.

When all these conditions exist, economists call this "perfect competition." The logic of perfect competition results in a hypothetical optimal allocation of resources and zero economic profits.

This basic model has been very useful to economists for close to a century. But its use has not been without serious costs to our economic understanding. The development of this model has obscured the institutional framework that underlies a functioning economic system (which we examine in Chapter 11). And it has ignored the entrepreneurial adjustment process (already discussed in Chapter 7) that is at the center of the robust nature of market economies and the source of their vibrancy that is the engine of economic growth and prosperity in the modern world (the subject of Chapter 16). Focusing on price taking behavior under perfect information, the notion of perfect competition has unfortunately overlooked the entrepreneur and the monetary calculation of profit and loss.

Perfect competition ignores the role of entrepreneurship.

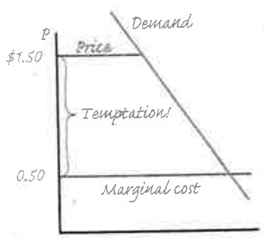
The model of the "perfectly competitive" economy, which has no special focus on entrepreneurship, was used by economists to explain the supply-demand coordination proposition we explored in Chapter 5. There is a general interconnectedness to economic activity that is often forgotten in less developed depictions of the economic system. The fact that a revolution in Chile will be immediately registered in the price of copper in the futures market in New York City is one of the most essential points of sophisticated economic theory. A functioning market economy provides incentives and information for economic actors to coordinate their plans with one another to realize the mutually beneficial gains from exchange. Under the conditions of "perfect competition," however, the market accomplishes this coordination task *perfectly* so that no further gains from exchange exist, and all least-cost technologies are being employed in production. Furthermore, the logic underlying the proposition that a profit opportunity known to all will be realized by none provides us with a clear example of the economic way of thinking.

Just to illustrate the power of this proposition, consider what you witness on a regular visit to the checkout counter at your local supermarket. As you prepare to check out, you look for the shortest line in which to stand. But so do all your fellow shoppers. If the line two register to the left of you is moving faster, those in the back of the line will move over. They will seize that opportunity to get on the faster line, and in so doing, increase the number of people in that line, thus slowing down the checkout process on that line. The *movement* of shoppers—a *readjustment process*—has reduced the length of the original line and increased the length of the shorter line, and in the limit pushed the situation to where all checkout lines are equivalent in waiting time.

What is true for shopping lines is also true for toll lines on highways and stock tips on the stock market. Sound economic theory is grounded in this logic. Unfortunately, the model of perfect competition tends to obscure the active process by which this result tends to emerge. By assumption, the model focuses on that state of affairs that occurs *after* all this activity has taken place, *after* all the readjustments have been successfully accomplished. There is a prereconciliation of economic plans in the model, not an explanation of how economic actors engage in exchange and production activity to realize the gains from exchange, which if pursued to its logical limit would exhaust all potential gains. Over 200 years ago Adam Smith talked about haggling on the market, but modern theory focuses on the conditions that would result to *eliminate* the possibility for any further haggling. It is our opinion that this has been a major intellectual error that has led to confusion in both economic theory and public policy.

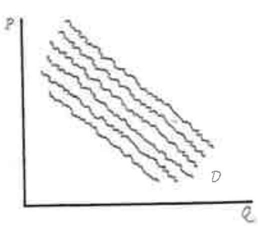
Perfect competition ignores the plan adjustment process that characterizes real-world market activity.

The Pressures of Competition



All sellers facing demand curves that are less than perfectly elastic—tilted downward to the right rather than horizontal—will maximize net revenue by restricting sales or output and keeping the selling price above marginal cost. (Unless they can practice "perfect" price discrimination.)

One problem from the seller's viewpoint with prices higher than marginal cost is that such prices are a standing invitation to competition. If a piece of apple pie that costs the cafeteria owner 50 cents is selling for $1.50, the owner is likely to insist that the $1.00 difference isn't profit; it's only a contribution toward meeting all the other costs of running the cafeteria: labor, taxes, rent, equipment maintenance, breakage, theft, and so on. That may be completely true. Nonetheless, each additional piece of pie that is sold for $1.50 contributes a net $1.00 toward the owner's wealth. If the same is true for all the other cafés and cafeterias in town, each owner will be earnestly wishing that more hungry people would abandon the other eating places and buy their apple pie from him or her.



Demand curve as seller perceives it

Wishes like this often prompt action. Pie prices might be slightly reduced after 3 P.M. to induce some afternoon coffee-break customers to allow themselves a little treat. Or a sign could be put up after 3 P.M. announcing free coffee with pie purchases. There are dangers inherent in this strategy. Some lunch customers may simply postpone their dessert at noon and have it at 3 P.M. when it's cheaper. And competing restaurants may undermine the promotional effort by offering their own inducements, so that instead of capturing additional customers each owner ends up selling only as much pie as previously, but at lower prices.

We assumed in the last chapter that Ed Sike and some of the other sellers whose policies we were examining somehow knew exactly what the demand was for their product. That assumption was useful in enabling us to present the logic of the simple price-searching process. In reality, of course, sellers must usually probe for information on the demand for their product and try to stimulate and maintain it by advertising and by offering reliable service. Moreover, when there are several sellers of a product in the market, each seller's demand curve is going to depend on the policies, including the price policies, of those competing sellers. The demand for Ed Sike's film series will shift downward to the left if neighboring theaters show better movies or cut their prices, or if sororities and fraternities pick Friday nights to sponsor parties, or if the college basketball team plays home games on Friday nights and hits a winning streak.

The price that any one cafeteria in the downtown area sets for apple pie will affect the demand (curve or schedule) for apple pie at other restaurants. Because each of the restaurants will be using estimates of its own demand to set prices that will, in turn, affect the demand all other restaurants encounter, we have a situation more closely resembling chess or poker than a technical maximization problem. The best price for anyone to set *next* may depend on the price set *last*, as in a game of chess. The neat little world of Chapter 8, with its clearly defined curves, becomes blurry. Unfortunately from an analytic standpoint, though perhaps fortunately from an aesthetic one, the real world is not as neatly outlined as the pages in a coloring book.

Controlling Competition

Then why don't sellers agree not to compete, or to compete less, or to share the market among themselves in some mutually satisfactory way? Even Adam Smith wrote in *The Wealth of Nations* that "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices." So the answer is that sellers would very much like to restrict competition among themselves and often try, but it isn't as easy as it might seem at first. Just as transaction costs often prevent suppliers and demanders from cooperating effectively, so they frequently prevent suppliers from getting together to take advantage of demanders. To begin with, agreements between competing sellers to maintain prices and share markets are usually unenforceable in court and are, moreover, illegal under the laws of many states and under federal law where it is applicable. That fact alone substantially raises the transaction costs of arranging an agreement not to compete. In addition, it's very difficult to devise agreements that everyone will accept, that will cover all the major possibilities, and that can be enforced without the aid of the courts. The incentives to compete are so persistent that soon one or another party will find an excuse to circumvent the agreement or, lacking an acceptable excuse, will circumvent it secretly. On top of all this, successful collusion by the members of a cartel will attract the attention of outsiders, who will begin trying to enter the business in order to enjoy some of the profits that collusion has created.

Cartels consequently reveal a fragility that often surprises people who don't realize on how many margins competition can occur. To be successful in increasing the wealth of its members, a cartel must solve two problems. It must first prevent competition among its own members from dissipating the profits of collusion, whether through a fall in actual selling prices or a rise in selling costs. And then the cartel must find some way to keep new competitors from spoiling the whole operation by trying to enter the act.

A cartel's two problems: prevent members from competing and prevent new firms from entering.

That is why price searchers and even price takers yearn so ardently for *legal restrictions* on competition. They seek to alter the property rights of themselves as well as *others*—namely, the rights of their potential competitors. They seek to *restrict entry*. But as you might recall from Chapter 7's discussion of profit and loss, open entry and exit are the *keys* that unleash entrepreneurial activity and the discovery of comparative advantage.

Sellers are sometimes extraordinarily imaginative in devising reasons why the government ought to outlaw price-cutting or prevent new sellers from entering the market. In one of the most ingenious works of economic satire in history, in 1845 the French economist Frederic Bastiat wrote a petition on behalf of the French candlemaking industry to eliminate their most vicious competition: the Sun![1] This spirit of inventing excuses continues on into modern times. Here are a few actual items culled from a number of newspapers, with identities sometimes altered slightly to protect the guilty. It's a very good idea to ask in each case exactly who stands to gain and who is most likely to lose.

- The Washington, D.C., Medical Society launched a major lobbying campaign over the weekend against proposed legislation that would encourage granting of hospital privileges to qualified nurse midwives, psychologists, podiatrists, and other nonphysician health professionals. The medical society envisioned erosion of standards, speculating in its newsletter that "pretty soon a boy scout with a rusty knife will be permitted to perform brain surgery."
- All plumbers must spend a minimum of 140 hours a year for five years learning higher mathematics, physics, hydraulics, and isometric drawing.
- Woolen makers are arguing that because woolen worsted fabric is essential to national defense, the government should impose quotas on imports from abroad.
- The deregulation of cosmetologists and barbers would put consumers in our state at the mercy of professionally uneducated and governmentally unregulated hairdressers and barbers. This is extremely irresponsible, because hairdressers today utilize extremely hazardous acids and alkalines in the course of their everyday work.
- The prominent owner of a local television sales and service center said today that he welcomed the state's investigation of the television repair business, and he demanded regulation of the industry. "We must eliminate janitors, firefighters, messengers, and similar amateurs who defraud the public by providing poor-quality services at cut-rate prices," he argued.
- The Senate Public Health Committee yesterday rejected a bill to allow use of multiple offices and trade names in the diagnosis of eye problems and fitting glasses. Single-office optometrists contend that optometrists who have private offices are in effect employed by their patients. If optometrists work under a trade name, their boss is their company.
- Some state officials are so adamant that dogs' teeth should be cleaned only by licensed veterinarians that they sent in an undercover pooch a couple of months ago to break up what they considered an illegal dog-tooth-cleaning operation. The executive director of the state's Board of Examiners in Veterinary Medicine said that groomers who invade a dog's gums are practicing medicine and might cause the dog unnecessary pain. (Do you think people with their hand in a dog's mouth are likely to cause the dog unnecessary pain?)

[1]This petition, with all of the benefits supposed to accrue to France from a ban upon sunlight, can be found in his work *Economic Sophisms*, first published in 1845.

Restrictions on Competition

Often entrepreneurs (or the people they employ) will seek to legally restrict the market in order to preserve *their own* profit (and wage) opportunities. Nobody hates increased competition more than the already-established enterprises. When associations

"We're not in favor of free competition. We want fair competition!"

of physicians, plumbers, farmers, airline pilots, nursing home operators, or automobile manufacturers urge the government to restrict competition in their trade, what are they after? They are trying to reduce uncertainty, at least for themselves, by preventing price cutting and by keeping out competitors. If they succeed in their efforts, don't they secure for themselves something close to a guaranteed profit? And a guarantee is at the opposite pole from uncertainty. Let's take a closer look to see whether restrictions on the ability to compete really do give rise to something we can call a *guaranteed profit*.

Suppose that you accidentally—with no investment of time, effort, or other resources—discover the way to build a better mousetrap. You snagged the blueprints, let's say, while out fishing. Recognizing the value of your find, you immediately obtain a patent from the government and make plans to go into production. Because the world will beat a path to the door of anyone who builds a better mousetrap, and because the patent prohibits any competitor from duplicating your product for 20 years, you are going to become rich. It's a virtual certainty. And the first year's results confirm your happy prediction: Net revenue is $100,000. You can confidently expect another $100,000 for each of the remaining years. It looks like an annual *and fairly certain* profit of $100,000. But let's pursue the story further.

What is the source of this "profit?" It's your patent, of course, which prevents competition from eroding the difference between your total revenue and your total costs. But have you accurately calculated the cost of producing these superior mousetraps?

Competition for the Key Resource: The $1,000,000 Taxi License

Licenses to restrict an activity raise the cost of engaging in that activity.

When taxicab operators secure legislation restricting the number of cabs that are licensed to operate in a city, ownership of a license becomes more valuable. Competition for the licenses (called medallions) then bids up their price until the cost of operating a cab—including the opportunity cost of acquiring or of retaining ownership of the license—is equal to the revenue from its operation. That does not mean taxicab operators don't get any benefit from their lobbying campaign. Those who owned licenses before the legal restrictions were generally anticipated to benefit from an increase in the value of their licenses. That increase is their profit, and it's what they were hoping for when they launched their lobbying efforts, when they became political entrepreneurs. But after the lobbying efforts have succeeded it will cost more to operate a cab, because each cab operator will now have to own a costly license in order to do so. Taxi medallions in New York City hit record highs in 2011 as they were bid up to $1,000,000 for each new license.

Competition and Property Rights

Profits and losses arise from uncertainty and cannot exist in the absence of uncertainty. Where everything relevant to the making of a profit is known for certain, competition to obtain the profit will eliminate it, either by reducing revenue or by raising cost. There's nothing very surprising about that conclusion; it follows logically from the way we have defined cost and profit. What matters, and what this chapter was intended to clarify, are the forms that competition and entrepreneurial activity take in response to the lure of a possible profit, and the social consequences that emerge.

Will the pursuit of profit lead people to produce better mousetraps or to prevent others from selling better mousetraps in their territory? Will it yield more wheat or higher-priced wheat land? Better taxi service or an increase in the cost of licenses? Lower prices for consumers or higher incomes for the owners of critical resources? Exploration or retrenchment? Innovations in technology or in social organization? A wider range of choices or more restrictions on choice? The answers will depend on the rules of the game and the system of property rights that they create.

The Ambivalence of Government Policies

An old proverb wisely asserts that the wolf should not be sent to guard the sheep. Should the government be relied on to preserve competition in the economy? The history of government intervention in economic life reveals a pattern of concern for the special interests of competitors at least as strong as concern for competition. And the two are not identical, even though our rhetoric so often and easily uses them interchangeably.

Concern for competition is not the same as concern for competitors.

The cases just cited show government taking or being urged to take a variety of actions designed to prevent potential sellers from offering more favorable terms or more attractive opportunities to buyers. These actions constitute restrictions on competition, regardless of the arguments used to defend them. The ultimate effect of a particular restriction on competition might be to preserve competition, by protecting a substantial number of competitors who would otherwise be forced out of business. But whether or not that is the long-term effect in certain cases, it is important to begin any evaluation of government policy toward competition by acknowledging one principle: *A law that restricts competitors restricts competition.*

One very common justification for such laws is that they preserve competition by preventing "predatory" practices.

Selling Below Cost

Do you agree with the following paragraph?

> In order to preserve our competitive economic system, we need laws that prohibit unfair practices such as sales below cost. Large firms can often afford to sell products below cost until their rivals are driven out of business. If they are not restrained by law, we could easily wind up with an economy dominated by just a few huge corporations.

Most Americans apparently accept this argument. Our laws, at the federal, state, and local level, abound with provisions designed to prevent or inhibit price-cutting. Many states have statutes prohibiting sales below cost, statutes that usually go by some such name as Unfair Practices Act. And regulatory commissions, ostensibly created to hold down the prices that may be charged by public utilities, often wind up enforcing minimum rather than maximum rates. This was true, for example, of the grandfather of all such commissions in the United States, the Interstate Commerce Commission (created by Congress in 1887).

It's fairly obvious why some business firms would approve that kind of legislation: They want protection against competition. But why do consumers and the general public go along? The public seems to have accepted the argument that price-cutting can create "monopolies" by driving competitors out of business. And monopolies, of course, are considered bad. The paragraph with which this section began states the essential argument. How valid is it? Is it possible to construct a defensible case for laws that prohibit "sales below cost?" A lot of questions should immediately arise in your mind.

What Is the Appropriate Cost?

What is the cost below which prices should not be set? Does anyone actually sell below cost? Consider the case of Ms. Profetta Seeker, proprietor of the Thrifty Supermarket, who orders 1,000 pounds of ripe bananas. She gets them for $1.00 a pound, because the produce distributor is eager to move them before they become too ripe. Profetta advertises a weekend special on bananas: $2.25 a pound. But Monday morning finds her with 500 pounds of bananas, now beginning to turn brown. How low can Profetta cut her price without selling below cost? The answer is *not* $1.00 a pound. Most of that is *sunk* cost and hence no longer a cost at all. If Profetta will have to pay someone to haul the unsold bananas away on Tuesday morning, her cost on Monday could be less than zero. In that case, it might be to her advantage to give the bananas away. If a zero price is to her advantage, how can it be "below cost?" Below *what* cost? (By the way, did Profetta *buy* the bananas below cost?)

Or suppose Profetta bought a truckload of coffee: 1,000 one-pound cans for $3.50 each. It was an unknown brand on which a local distributor offered her an attractive price. But it turns out that her customers aren't interested. She cuts the price down from $5.00 to $4.00 a pound, but still can't move it successfully. Four weeks after her purchase she still has 987 cans of coffee cluttering her shelves and storage room. If she now cuts the price below $3.50, is she selling below cost? She is not. She has no intention of replacing the cans she sells so each sale is that many additional cents in the till and one less can in the way. The relevant cost of a pound of coffee could well be zero. The relevant cost is, of course, the marginal cost.

Let's try a different kind of example and then return to Profetta Seeker. It might make sense to estimate the cost of producing a steer, but does it make any sense to estimate separately the cost of producing hindquarters and forequarters? Should the price of steaks, which come from the hindquarters of a beef carcass, cover the cost of producing the hindquarters, leaving it to pot-roast prices to cover the cost of the forequarters from which they derive? The question is nonsensical. Unless it is possible to produce hindquarters separately from forequarters, one cannot speak of the cost of producing one and the cost of producing the other. Hindquarters and forequarters, or steaks and pot roasts, are joint products with joint costs. There is no way to determine the specific costs of joint products or to allocate joint costs "correctly."

Back to Profetta Seeker. Can we legitimately segregate the costs of each item sold in her grocery store? Think of her frozen-food items, for example. How much of the cost of owning and operating the freezer case should be allocated to vegetables, how much to Chinese dinners, and how much to orange juice? It's true that she could not carry frozen cauliflower without a freezer case. But if she finds it profitable to own and operate a freezer case just for the sake of the frozen juices she can sell, and if she then has some extra room in which she decides to display boxes of frozen cauliflower, it might make sense for her to assign *none* of the freezer cost to the cauliflower.

A successful businesswoman (or businessman) is not concerned with questions of cost allocation that have no relevance to decision making. She knows that production—and a merchant is a producer just as certainly as is a manufacturer—is usually a process with joint products and joint costs. The businesswoman is interested in the additional costs associated with a decision and the additional revenue to be expected from it, not in such meaningless problems as the allocation of joint costs to particular items for sale. If there is room for a magazine rack near the checkout counter, the question is: How much will its installation

Below cost? Cost to whom? Cost ~~of~~ doing what?

add to total costs, and how much will it *add* to total revenue? If the latter is larger, the rack makes sense, and the magazines sold need not have a price that covers utilities, rent, depreciation on cash registers, *or even the wholesale prices of the magazines*.

Mark well the italicized phrase. It may be profitable to sell a morning newspaper for 25 cents even if it costs 50 cents to obtain it from the distributor. Why? Because availability of the newspaper may bring in new customers who add to net revenue—the profit—through the purchases of other items. Profetta Seeker is interested not in the net revenue on any *one* item she sells, but in the difference between total revenue and total costs. Hardware stores that sell odd-lot bolts, screws, and nuts lose money on each sale, but (or so their owners hope) more than make it up through the goodwill they thereby create. Even Ann Trepreneur—a pizzeria owner (Chapter 7)—provides napkins, crushed red pepper, parmesan cheese, water, and toothpicks for "free" to her customers, regardless of the quantity of pizza they eat. (Her competitors at the Chinese restaurant down the street go so far as to offer piping hot tea for no charge.) She's not concerned with "making money" on every single item she provides to her customers. She's concerned with the overall *profit* of the pizzeria, the difference between *total* revenues and *total* costs.

"Predators" and Competition

There would be little point in stressing all this were it not for the popular mythology of "selling below cost." Our argument suggests that many allegations of sales below cost are based on an arbitrary assignment of sunk costs or joint costs. Business firms often complain about below-cost sales, of course, but that is because they dislike competition, and want government to protect them from its rigors by prohibiting price-cutting.

But aren't there dangers to competition in allowing firms to cut prices as low as they wish? It is odd, but not really surprising, how often people identify the protection of competitors with the preservation of competition. In reality they are more like opposites. Competitors are usually protected by laws inhibiting competition, laws that benefit privileged producers by restricting consumers and nonprivileged producers. The hobgoblin hauled out to justify this is "predatory price-cutting" backed up by a "long purse."

Protecting competitors is not the same thing as preserving competition.

Predatory price-cutting means reducing prices below cost in order to drive a rival out of business, or prevent new rivals from emerging *with the intention of raising prices afterward to recoup all losses*. It is supposedly a favorite tactic of larger firms that can stand prolonged losses, or temporary losses on some lines, because of their larger financial resources—the so-called long purse. Economic theory does not deny the possibility of predatory price-cutting. But it does raise a long list of skeptical questions, headed by all the questions we have been discussing regarding the proper definition of an item's cost.

How long will it take for such a policy to accomplish its end? The longer it takes, the larger will be the short-run losses accepted by the predator firm and, consequently, the larger must be the long-term benefits if the policy is to justify itself.

What will happen to the physical assets and human resources of the firms forced out of business? That's an important question, because if those assets remain in existence, what is to prevent someone from bringing them back into production when the predator firm raises its prices to reap the rewards of its villainy? And if this occurs, how can the firm hope to benefit from its predatory policy? On the other hand, the human resources may scatter into alternative employments and be costly to reassemble.

Is it likely that the predatory firm will be able to destroy enough of its rivals to secure the degree of market power that it must have to make the long-run profits justify the short-run losses? Charges of predatory pricing have most frequently been leveled against large discount houses, drug chains, and grocery supermarkets. But these sellers are not pitted exclusively against small independent competitors: They must tangle with other large discount houses, other drug chains, and other supermarkets. Perhaps a grocery chain could cut its prices far enough and keep them low long enough to drive Profetta Seeker out of business, but that wouldn't work on other chains. And it isn't Profetta Seeker who keeps grocery chain executives awake at night.

We are not denying the possibility of predatory pricing in business. Well-documented examples are hard to find, but it is surely possible. Minimum-price laws, however, offer the *certainty* of higher prices in order to eliminate the *possibility* of higher prices: a case of accepting a known and certain evil as a way of avoiding an uncertain evil of unknown dimensions. That may or may not be a good social bargain. But because it is so often advocated by business firms that clearly stand to gain from it, we should at least approach their arguments skeptically.

Regulating Prices

But what about sellers who face so little competition that they can earn large profits by charging prices far above their costs? Suppliers of electricity or telephone services are standard examples. Where such firms are investor owned, should the government protect consumers from exploitation by regulating the prices they may charge?

How should the regulators choose the proper price to set in such cases? By looking at costs, of course. Prices should be set to enable the firms to cover their costs and earn a reasonable profit.

How will regulators determine the costs of running the enterprise?

But as you surely know by this time, costs are not mere facts of nature. They are the consequences of managerial decisions. And if the managers of an enterprise know that their prices will be adjusted to take account of any change in costs, what incentives will they have to lower costs or to keep them down? They could choose instead to surround themselves with thick office carpets and company jets and to inflate salaries, build monuments, and enjoy a quiet life. What incentive will they have to innovate? Why take risks in such an environment?

Who will guard the guardians?

Regulators would consequently have to examine continually the decisions of managers. To do so effectively, they would have to learn as much about the firm as the actual managers know. That means in effect that every regulated firm would have two sets of managers. Does that make sense? Wouldn't the second set of managers tend over time to adopt the perspective of the first set, from whom they would almost inevitably be obtaining most of their information? Who then will regulate the regulators? The history of regulated industries reveals a disturbing tendency for the members of regulatory commissions to be "captured" by those whom they are supposed to regulate, not through bribery or corruption, but simply because regulators quite naturally acquire an interest over time in the well-being of the industries for which they are responsible.

Banking institutions in the United States were closely regulated by governments before 1980. They were also protected against competitors by government restrictions on entry. And so they opened at 10, closed at 3, and provided none of the numerous services that we have come to take for granted since 1980, from cash machines through telephone transfers to much longer hours of operation.

Before 1978, the government regulated commercial airline prices and restricted entry into the industry. Although service was much more luxurious in the days of regulation, it was luxurious for far fewer passengers. The airlines charged the high prices that the government mandated and competed for the relatively few customers available at those prices by offering such amenities as empty seats across which to spread out and quality food and drink, with attractive young flight attendants to serve their overwhelmingly male passengers.

Were customers better served with or without regulation:

- in banking?
- in airline travel?
- in telephone service?

When competition began to displace regulation in the telephone industry in the 1980s, all sorts of new services started to appear. An industry that had been reliable but static and unimaginative suddenly discovered innumerable ways to make the telephone do things for us that we hadn't even known we wanted done.

The standard argument for government regulation of prices is that government *must* regulate where competition *cannot*, or else consumers will be at the mercy of greedy sellers. This argument often kept us from asking whether competition really was unable to constrain the behavior of firms in traditionally regulated industries. We took for granted that competition could not be effective in transportation, communication, financial services, utilities, and other industries, and so never put that assumption to a test. The movement toward deregulation of the past two decades or so has not settled all the issues, but it has unquestionably showed us that there are more margins on which competition can occur than we formerly suspected, and that competition has some distinct advantages over government commissions as a method of restraining market power.

"Antitrust" Policy

We shall see in Chapter 11 why it is that governments so often intervene in ways that harm consumers by *reducing* competition, despite the fact that consumers and competition always win easily in the rhetorical battles. But local and state governments, and especially the federal government, also have adopted specific policies to *promote* competition, policies that are ordinarily justified on the ground that competition is an effective coordinator of economic activity, but requires some government maintenance if it is to be adequately preserved. The assessment of these laws, their applications, and their consequences forms an interesting study in history and judicial interpretation, as well as economic analysis. All we shall try to do here, however, is raise a few fundamental questions.

The most important such law is the Sherman Act, often called the Sherman Antitrust Act, enacted by Congress with almost no debate or opposition in 1890. (The name reflects the attempts of nineteenth-century businessmen to use legal trusteeships as a device to prevent competition.) Its sweeping language has caused some to call it the constitution of the competitive system. It forbids all contracts, combinations, or conspiracies in restraint of interstate trade and all attempts to monopolize any part of interstate trade. The language is so sweeping, in fact, that it was bound to be qualified in its application. After all, any two partners entering into business together could be deemed to have combined with the intention of making trade more difficult for their competitors and thus gaining an ever-larger share of trade for themselves. The federal courts consequently came to hold that combinations or other attempts to monopolize had to be "unreasonable" or major threats to public welfare before they could be prohibited under the Sherman Act.

Interpretations and Applications

To help the courts in their efforts to apply the policies of the Sherman Act, Congress has passed additional legislation such as the Clayton Act and the Federal Trade Commission Act, both of which became law in 1914. The latter act created the Federal Trade Commission as a supposedly expert body, and authorized it to promote competition by prohibiting a wide range of "unfair" practices. A principal provision of the Clayton Act (and subsequent amendments) aims specifically at the question of mergers, prohibiting all mergers that might "substantially" lessen competition. But difficult and important questions remain unresolved.

Horizontal merger: two oil refiners

When does a merger substantially lessen competition? And do mergers ever increase competition? Suppose two steel firms want to merge. This would be a *horizontal merger*. At first glance we would be inclined to say that the merger will substantially lessen competition in an industry already made up of a relatively few very large firms. But suppose they sell in different geographic areas? Suppose they each specialize in a different line of steel products? Suppose each is on the edge of failure and that the merger will lead to economies that may enable both to survive?

Conglomerate merger: an oil refiner and a steelmaker

A great deal of dispute surrounds so-called *conglomerate mergers*: mergers between firms producing widely divergent goods. Does the acquisition of a car rental firm by an electrical machinery manufacturer enable the rental firm to compete more effectively against Hertz and Avis? Does it lead to special arrangements between the machinery manufacturer, its suppliers, and the rental firm that tie up a portion of the car rental business and thus reduce competition? Do conglomerate mergers lead to concentrations of financial power that are dangerous and undesirable regardless of their effects on competition?

Vertical merger: an oil refiner and a chain of gasoline retailers

What about *vertical mergers*, mergers between firms that previously existed in a supplier–buyer relationship, as when a supermarket chain acquires a food processor? Is this more likely to increase efficiency or to reduce competition by depriving other food processors of opportunities to sell?

What constitutes an illegally unfair trade practice? Is it unfair for a large firm to demand discounts from its suppliers? Is it unfair for suppliers to offer discounts to some purchasers, but not to others? What about the whole question of advertising? Do large firms have unfair advantages in advertising, advantages that advertising increases? Must advertising be truthful in order to be fair? Of course it must, almost by definition. But what is the truth, the whole truth, and nothing but the truth? Anyone who thinks about this issue seriously or for very long is forced to admit that the regulation of "deceptive" advertising by the Federal Trade Commission inevitably involves the commission in complex questions of purpose and effect and in a large number of judgments that appear quite arbitrary.

And always we return to the root problem: Restrictions on competitors will reduce their ability to compete. Competition is essentially the offering of additional opportunities, and additional opportunities mean a wider range of choices and hence, greater wealth. But the manner in which a firm expands the set of opportunities it offers may diminish, over a shorter or a longer period, the set of opportunities other firms are able to offer. Under what circumstances do we want the government to restrict one firm's competitive efforts for the sake of the larger or long-run competitive situation? It is extremely important to take note of the fact that the most effective pressures on government policies stem not from consumer, but from producer interests. And those policies will too often be shaped by the desire of producers to protect themselves against the rigors of the competitive life.

Vertical Restraints: Competitive or Anticompetitive

Current controversies over vertical restraints on competition illustrate many of the opposing arguments and conflicting interests that complicate antitrust policy. From 1937 to 1976, federal legislation exempted from the Sherman Act state-endorsed price-fixing agreements between manufacturers and retailers. Congress had no sooner rescinded this exemption, making such agreements automatically illegal once again, than the courts started to carve out exceptions to the principle that manufacturers may not try to control competition at the retail level. Congress subsequently responded by trying to prohibit altogether what it had once encouraged. Legislation has been repeatedly introduced that would sharply curtail the power of manufacturers to control the behavior of those who distribute their products.

Is there any way that consumers could benefit from a manufacturer's refusal to sell to a retailer who reduced the resale price below some recommended minimum, or from a decision to limit the number of retail outlets that will be allowed to carry the manufacturer's product in a given geographic area? It would seem that such actions could only produce higher prices and poorer-quality service for consumers. That conclusion becomes much less certain, however, when we ask why any manufacturer might want to prevent price discounting by retailers or to hold down the number of stores carrying its product.

Why would a manufacturer want retailers to charge more (and consequently sell less)? Why would a manufacturer want fewer retailers selling its products?

Manufacturers sometimes conclude that they will be unable to market their product successfully unless consumers are provided with a substantial range of pre- and postsale services, such as information on ways the product can be utilized profitably, continuing instruction on operating procedures, or fast and dependable maintenance service. Retailers will want to supply these services only if they can increase their own net revenue by doing so, that is, if supplying these services will increase their sales by more than enough to cover the cost of the service.

Such services will not be supplied, and hence the manufacturer's product cannot be successfully marketed, whenever retailers are able to "free ride" on the services provided by other retailers. Consider the case of personal computers. These products could not have been introduced into offices and homes as quickly as they were if selling effort had not been accompanied by a whole lot of instructional effort. Instructional effort was selling effort, perhaps the most effective kind of selling effort. And there's the catch. Retailers who incurred the cost of teaching people how to make effective use of one type of personal computer could easily be undermined by competing retailers who provided no instructional services, but catered to the demand that others had created.

Manufacturers who set minimum resale prices, or limit the number of outlets in an area may be trying to protect cooperating distributors from free-riding distributors. Their interest would be in marketing their product effectively, not in reducing competition. Of course, the manufacturer's actions *would* limit competition if we defined competition in some "perfectly competitive" sense. But in the absence of such actions there might be even less competition, as the product could not be effectively marketed at all.

Should manufacturers be allowed to restrict competition at the retail level, then, as part of a reasonable effort to market their product? The courts have been allowing such activities in recent years, on a case-by-case basis, looking at the context, intent, and probable effects of the "vertical" restrictions. That has not made everyone happy. Distributors who were cut off or otherwise disciplined by manufacturers have complained to Congress, and some members of Congress have responded with bills that would severely limit the rights of manufacturers in this area. Proponents of such bills argue that they want to enhance competition. Opponents reply that the effect will be to reduce competition by seriously curtailing the power of manufacturers and distributors to devise and agree on effective marketing procedures.

The Range of Opinion

Is the whole body of "antitrust" law perhaps more of a hindrance than a help to competition? There are some who come to that conclusion. There are others—heavily concentrated, it often seems, in the economics profession—who would retain the Sherman Act and the antimerger provisions of the Clayton Act and junk the rest. Some of these defenders claim that the Sherman and Clayton acts have made important contributions to the maintenance of a competitive economy. Others claim that they could make a much larger contribution if they were seriously enforced. But still others view them at best as harmless rhetoric, at worse as weapons that, in the hands of ignorant political appointees, may do a lot of damage to the economy. As Judge Robert Bork explained in his book *The Antitrust Paradox*: "A determined attempt to remake the American economy into a replica of the textbook model of competition would have roughly the same effect on national wealth as several dozen strategically placed nuclear explosions."

"Antitrust" policy is certainly full of contradictions, of cases where the right hand is doing what the left hand is undoing. State laws rarely promote competition; more often they promote the interests of the competitor protectors rather than the competition protectors. Federal enforcement of the Sherman Act and the antimerger provisions of the Clayton Act often seem to strain at gnats while swallowing camels. Firms unable to compete effectively by offering their customers lower prices and better quality, sometimes file complaints under the antitrust laws, to see if they can persuade the courts to raise the prices or reduce the quality of their competitors' offerings. On the other hand, the existence of the Sherman Act, with its ringing denunciation of price-fixing conspiracies, may have retarded the development in this country of the cartel arrangements that have so often appeared in Western Europe and Japan. The economist George Stigler once suggested that "the ghost of Senator Sherman is an ex officio member of the board of directors of every large company." While that statement will never meet the minimum criteria for empirical scientific truths, good history is still a long way from being a pure science.

Toward Evaluation

The conclusions that we shall offer at the end are far more modest than the questions with which we began.

Restrictions on potential competitors reduce the range and diminish the availability of substitute goods, and allow sellers more room to increase their own wealth by denying opportunities to others. Competition is a process, not a state of affairs. To put it another way, competition can be recognized only in motion pictures, not in still photographs. The fact, for example, that the price of some good is exactly the same, no matter from which seller you buy, establishes absolutely nothing about whether the industry producing that good is adequately competitive. The important question is how those prices all came to be identical. It happens with surprising frequency that even public figures, who ought to know better, will infer an absence of competition from the uniformity of price. The quickest antidote to this error is the recollection that wheat farmers all charge the same price.

The other observation is that an inadequate situation must be compared with more desirable situations that are actually attainable. It is a mistake to contrast a less-than-ideal situation with an ideal-but-unattainable situation. There are also costs involved in changing market structures and business practices. They include not only the costs of an investigation, prosecution, court order, and compliance under antitrust statutes. They also include the costs of mistakes and of the increased uncertainty that shifting policies create for business planning. Only if these marginal costs are less than the marginal benefits can one maintain that we would be "better off" if we took legal action to reduce the market power of price searchers, to prevent business mergers, or to prohibit practices that might eventually lessen competition.

Once Over Lightly

Competition is a process that is overlooked in the standard economist's notion of a "perfectly competitive" market. Competition shouldn't be characterized as large numbers of producers operating as price takers under perfect information, but rather as a way by which entrepreneurship itself is unleashed.

A gap between the price of a good and the marginal cost of making it available is a source of potential advantage to someone. Competition occurs in the economy as people locate such differentials and try to exploit them by filling that gap with additional goods.

Competition takes more forms than we can list, and usually more forms than competitors can anticipate and head off.

Because competition tends to transfer the gains for providing a good to purchasers and to other suppliers, firms frequently try to obtain government assistance in excluding competitors, often displaying remarkable ingenuity and stunning sophistry.

Firms often charge that their competitors, whether domestic or foreign, are "selling below cost", and call for the government to prevent such "predatory" practices. Most such charges make sense only if they include some expenses in per-unit cost that are irrelevant to the particular decisions under attack. They make a different kind of sense when we remember that sellers characteristically prefer less competition.

Government regulation of pricing and other business practices has often blocked the development of competition that might otherwise have arisen, and done a more effective job of inducing firms to serve the interests of consumers.

The notion that government is the Defender of Competition Against Rapacious Monopolists is probably more a hope than a reality. Federal, state, and local governments have created and preserved numerous positions of special privilege whose effect is to restrict competition and reduce the options available to consumers.

An adequate, balanced, and complete evaluation of the substantial body of statutes, commission decrees, and judicial holdings that makes up federal antitrust policy has not yet been published.

Competition is a process in which competitors engage. We obviously cannot have competition without competitors. It does not seem as obvious to people that we also cannot have competition if we prohibit competitors from taking actions intended to increase their share of the market.

Questions for Discussion

1. Soon after the government deregulated airline pricing, a major airline began asking in-flight passengers to complete a lengthy "Passenger Survey." A cover note from the senior vice president for marketing said that passengers who completed the survey would be helping the airline provide "the best possible service." Questions were asked about the purpose of this trip, frequency of flying, type of fare paid, what would have been done had no discount fare been available, how the ticket was purchased, and income of the traveler. What was the airline trying to do?
2. How would you account for the fact that although some observers claim competition is declining in the American economy, every business firm insists that it faces strenuous competition?
3. Consult the technical definition of *oligopoly*: competition among the few. Are commercial airlines oligopolists by that definition? Are the owners of the gasoline stations in a small town oligopolists? Name some other sellers who are and are not oligopolists by that definition.
4. The attempt by sellers to make their product more attractive to consumers is sometimes called *product differentiation*.
   (a) Is product differentiation a wasteful process, imposing costs on sellers that are greater than the benefits conferred on buyers? Think of cases where it probably is wasteful in this sense, and other cases where it is not.
   (b) Evaluate the following argument: "New practices initiated by sellers to differentiate their products are liable to be wasteful from the social point of view because they are liable to entail high marginal costs and low marginal benefits. But this only means that producers have already made use of the low-cost/high-benefit techniques of product differentiation; it does not show that the whole process of product differentiation is wasteful."
5. Why must an effective price-fixing agreement between sellers include such restrictions on sales as output limitations or geographic divisions of sales territory?
6. If monopolies are undesirable, why does government often try to protect sellers against new competitors? Why, for example, does the U.S. government prohibit people from competing with the post office in the delivery of first-class mail?
7. Cartels tend to break down in the absence of support from a government that is willing and able to penalize cartel members who violate the cartel's agreements. Why? Isn't it in the interest of each cartel member to abide by any agreement that aims at maximizing the net revenue of the cartel? Why

would the members have to be compelled by government to adhere to the agreement? One way to see why cartels break down is to ask yourself what would happen if four people played the following game.

Each player holds two cards, one marked L and the other S. When a signal is given, the players simultaneously play one or the other of their cards and are then awarded monetary prizes that vary according to the pattern of cards played.
If the pattern is 4 S cards, each player receives $5.
If the pattern is 3 S cards and 1 L card, those who played S lose $5 and the player who played L wins $15.
If the pattern is 2 S cards and 2 L cards, those who played S lose $10 and those who played L win $10.
If the pattern is 1 S and 3 L, the player who played S loses $5 and those who played L win $5.
If all play the L card, all lose $5.

(a) What do you think will occur, assuming that each player acts freely and independently and tries to maximize his or her winnings?
(b) Why will it be difficult for the players to avoid losing rather than winning money in the absence of an "enforcer" who punishes anyone who plays the L card?
(c) Now suppose that the four "players" are actually four independent producers that dominate an industry, and that "playing the L card" means deciding to produce a *large* quantity of output, while "playing the S card" means deciding to produce a *small* quantity of output. Look again at the payoffs. Think of them now as the profits that would accrue to the producers depending on (i) whether they individually decided to restrict their output for the sake of a higher price and (ii) what the other producers decided. Why does a producer always make a larger profit by choosing a large output, regardless of what others choose?
(d) What procedures might be available to the members of the industry that would induce every producer in the industry to choose the small output and thus maximize the profit accruing to the industry as a whole?

8. The analysis in the preceding two questions raises an interesting issue: Why did OPEC succeed so well for so long in raising the world price of oil? A major part of any answer is contained in the concept of the marginal cost of producing and selling oil. The cost of extracting oil from an established field can be very low indeed, so low as to be almost negligible. But the relevant marginal cost is the cost of extracting and *selling*. In the 1970s, many respected parties were predicting that, because the demand for petroleum products was highly inelastic, and the world's reserves were quickly running out, the price per barrel might rise by the end of the century as high as $1,000 a barrel. How do expectations of such dramatically higher future prices affect the opportunity cost of selling oil currently? How would such expectations solve OPEC's "cheating" problem? Why did those extravagant expectations, so common in the 1970s, disappear by the mid-1980s?

9. The legislature of a large state considered a bill that would require all grocery stores and drugstores selling package liquor to provide separate entrances to their liquor departments. It was maintained by supporters of the bill that this was necessary to prevent minors from entering the liquor department. Who do you think lobbied for this bill? Why?
10. A study pointed out that 73 percent of the professions licensed by a populous midwestern state required entrants to have "good character." Why? How can good character be determined? Who is best able to determine whether morticians' characters are sufficiently blameless to entitle them to a license?
11. While a state legislature was debating a bill that would allow optometrists to administer certain eyedrops during eye exams, 50 ophthalmologists descended on the capitol to lobby against the bill. The chairman of the state Academy of Ophthalmology told a reporter: "There is no economic advantage one way or the other." The ophthalmologists' sole concern was that, if the bill became law, "more people will be harmed through inappropriate use of drugs." Do you believe that 50 medical specialists all took a day off from their practices to lobby the legislature exclusively out of concern for the public's health?
12. The Washington State Utilities and Transportation Commission periodically launches a crackdown on unlicensed movers of household goods.
(a) The commission's enforcement chief said the crackdowns occur because of consumer complaints about damaged goods and price manipulation and because authorized carriers are complaining about growing competition from unlicensed movers. Which set of complaints do you suppose put the most pressure on the commission? How many consumers do you think know about the existence of the State's Utilities and Transportation Commission? How many licensed movers probably know about the commission?
(b) State officials have said that the legislature set strict requirements for entry into the moving industry in the 1930s because legislators were concerned that "unregulated, cutthroat competition would lead to a deterioration in service, safety problems, overly intensive competition in urban areas, and a lack of service in rural areas." Do you agree that these problems are likely to arise in the absence of regulation? Does competition *usually* lead to a deterioration in service? When is competition "cutthroat" and "overly intensive?" If you ask this last question of people already in the moving industry, how are they likely to respond?
(c) There is a "stringent public convenience and necessity test" for any new firm seeking a mover's permit, which places on the applicant firm the burden of proving that its services are needed. Can that be proved?
(d) The transportation director for the state commission is on record as believing that there are currently "more licensed movers than is necessary—as far as service rather than rates are concerned." What is the relationship between high rates and sufficient service?
(e) What does the fact that there are dozens of unlicensed movers operating in the state indicate about the transportation director's claim?

13. After 25 years, the U.S. Justice Department agreed to drop a consent decree that it had extracted from Safeway, under which Safeway had been prohibited from selling at prices below its cost of acquiring grocery products or at "unreasonably low prices" that might be above cost. The decree stemmed from a government suit that had accused Safeway of selling below cost in an effort to monopolize the market for retail food in Texas and New Mexico.
    (a) How likely is it that Safeway or anyone else would be able to monopolize the market for retail food in two states?
    (b) The alleged attempt to monopolize led Safeway to reduce prices to customers. Who do you suppose complained to the Justice Department about Safeway's behavior?
    (c) What is the appropriate way to determine the cost of specific grocery items? Is a retailer selling paper bags below cost when it makes them available to customers at no charge? Is the retailer cross-subsidizing paper bags?
14. Three elements that must be present for a firm to be engaged in predatory pricing are pricing (a) below cost, (b) in order to eliminate rivals, and (c) with the intention of raising prices afterward to recoup. What factors would make the last step of the process difficult to complete? Under what kinds of circumstances would it be relatively easy? Can you cite any actual examples?
15. The Staggers Rail Act of 1980 substantially reduced the power of the Interstate Commerce Commission to control the rates that railroads charge shippers.
    (a) The president of the National Coal Association has denounced the system of "letting the railroads charge what the traffic will bear" and has called for renewed rate regulation. Many other shippers, however, applaud the extensive deregulation of the railroads. Why might the coal industry favor rate regulation while most shippers oppose it?

Externalities and Conflicting Rights

10

LEARNING OBJECTIVES

- Define the concept of externality and distinguish between positive and negative externalities.
- Distinguish how the problem of negative externalities can be approached through negotiation, adjudication, and legislation.
- Investigate policies associated with pollution.
- Explore and apply the concept of market pricing to reduce externalities tied to traffic congestion.
- Explain how transaction costs affect people's ability to effectively limit externalities.

According to the economic way of thinking, individuals choose their courses of action by weighing the expected marginal benefits of any decision against its expected marginal costs. Benefits and costs for other people will not affect the decision, unless the benefits and costs for others *matter to the actor*. That turns out to be extremely important for the understanding of a wide range of social problems.

Externalities, Negative and Positive

Denny is the very model of a courteous driver, partly because he values his own safety, but mostly because his heart just overflows with kindness and consideration. Yet Denny hits the road each weekday morning at about 7:45 with no regard whatsoever