SIXTH EDITION

Law & Economics

ROBERT COOTER
University of California, Berkeley

THOMAS ULEN
University of Illinois, Urbana-Champaign

Addison-Wesley

Boston Columbus Indianapolis New York San Francisco Upper Saddle River
Amsterdam Cape Town Dubai London Madrid Milan Munich Paris Montréal Toronto
Delhi Mexico City São Paulo Sydney Hong Kong Seoul Singapore Taipei Tokyo

the defendant's costs of complying with a court order. Conversely, with the damage remedy, the obstacle to private agreement includes the defendant's uncertainty about the money value of the plaintiff's harm.[22]

QUESTION 4.13: Use the theory of transaction costs to justify protecting the following rights by injunction or damages:

a. A landowner's right to exclude from his property a neighbor's gas line.
b. A new car owner's right to have her car's defective transmission replaced by the seller.
c. A homeowner's right to be free from air pollution by a nearby factory.
d. A spouse's right to half the house on divorce.

QUESTION 4.14: Suppose that two people choose to litigate a dispute. Should the law presume that if two parties are prepared to litigate, transaction costs must be high, and therefore the court should choose damages as the remedy, not an injunction?

Web Note 4.2

There has been a surprising amount of recent scholarship on the Calabresi-Melamed contention about the efficiency of remedies. We discuss much of that literature on our website, including looking at the empirical literature on whether the issuing of injunctions is typically followed by bargaining.

VI. What Can Be Privately Owned?—Public and Private Goods[23]

In this section we turn to another fundamental question of property law: should property rights be privately or collectively held? First, we use the economic distinction between public and private goods (developed in Chapter 2) to differentiate those resources that will be most efficiently used if privately owned from those that will be most efficiently used if publicly owned.

Most examples of property that we have discussed thus far in this book are what economists call "private goods." Goods that economists describe as purely private have the characteristic that one person's use precludes another's: For example, when one person eats an apple, others cannot eat it; a pair of pants can be worn only by one person at

[22] Taking these arguments into account leads to a more convincing version of the second rule:
Where there are few obstacles to cooperation (i.e., low transaction costs), the more efficient remedy is the award of an injunction when the plaintiff can estimate the defendant's compliance costs more readily than the defendant can estimate the plaintiff's damages.

[23] Before reading this section, you may find it helpful to review the material on public goods in Chapter 2.

a time; a car cannot go two different directions simultaneously; and so forth. These facts are sometimes summarized by saying that there is rivalry in the consumption of private goods.

The polar opposite is a purely public good, for which there is no rivalry in consumption. A conventional example of a public good is military security in the nuclear age. Supplying one citizen with protection from nuclear attack does not diminish the amount of protection supplied to other citizens.

There is also another attribute that distinguishes private and public goods. Once property rights are defined over private goods, they are (relatively) cheap to enforce. Specifically, the owner can exclude others from using them at low cost. For example, a farm can be fenced at relatively low cost to exclude trespassing cattle. With public goods, however, it is costly to exclude anyone from enjoying them. To illustrate, it is virtually impossible to supply different amounts of protection against nuclear attack to different citizens.

Having explained the private-public distinction in economics and law, we can now relate them to each other. The relationship is very simple: Efficiency requires that private goods should be privately owned and that public goods should be publicly owned. In other words, efficiency requires that rivalrous and excludable goods should be controlled by individuals or small groups of people, whereas nonrivalrous and nonexcludable goods should be controlled by a large group of people such as the state. Thus, the distinction between private and public goods should guide the development of property rules to answer the question, "What can be privately owned?"

We can explain the central idea, not the details, for this prescription. Being rivalrous, private goods must be used and consumed by individuals, not enjoyed equally by everyone. Efficiency requires the use and consumption of each private good by the party who values it the most. In a free market, exchanges occur until each good is held by the party who values it the most. Thus, the law can achieve the efficient allocation of private goods by, for example, lowering bargaining costs by assigning clear and simple ownership rights. Once the state recognizes private property rights, the owner of a private good can exclude others from using or consuming that right, except by the owner's consent. The owner's power to exclude channels the use or consumption of private goods into voluntary exchange, which fosters the efficient use of those goods. This is an example of "lubricating bargaining."

In contrast, the technical character of public goods obstructs the use of bargaining to achieve efficiency. To illustrate, suppose that a particular city block is plagued by crime and some residents propose hiring a private guard. Many residents will voluntarily contribute to the guard's salary, but suppose that some refuse. The paying residents may instruct the guard not to aid nonpayers in the event of a mugging. Even so, the presence of the guard on the street will make it safer for everyone, because muggers are unlikely to know who has and who has not paid for the guard's services. Given these facts, there is not much that the payers can do to compel nonpayers to contribute.

Those people who do not pay for their consumption of a public good are called "free riders." To appreciate this concept, imagine that a street car has an electric meter in it and, in order to make the street car move, the riders must put money into the meter.

The riders will realize that anyone who pays provides a free ride for everyone else. Perhaps some riders will, nonetheless, put their full fare into the meter; some will put some money in but not their full fare; and some will not put anything in at all. Because of "free riders," not enough money will be put in the meter, so the street car company will provide fewer street cars than efficiency requires. In general, markets supply too little of a public good because the private supplier cannot exclude users of it who do not pay their share of the costs.

We have explained that private goods, which exhibit rivalry and exclusion, ought to be privately owned, and that public goods, which exhibit nonrivalry and nonexclusion, ought to be publicly owned. We illustrate this proposition as applied to land. Some efficient uses of land involve a small area and affect a small group of people, such as building a house or growing corn. "Housing" and "corn" are rivalrous goods with low exclusion costs, so markets easily form for housing and corn. Other efficient uses of land involve a large area and affect a large group of people. For example, the use of an uncongested airspace by airplanes or the use of the high seas for shipping are not rivalrous and exclusion is costly. Thus, airspace and the high seas are public goods. As congestion increases from more planes and ships, governments impose rules on the use of the air and seas.

These are examples in which private goods are privately owned and public goods are publicly owned, as required for efficiency. There are, however, many examples of private goods that are publicly owned. Public ownership of a private good typically results in its misallocation, by which we mean that it is used or consumed by someone other than the person who values it the most. For example, leases for grazing cattle on public lands may be granted to the friends of politicians. Similarly, the officials who administer the leases may not monitor compliance to prevent overgrazing, and the ranchers who overgraze the land may cause it to erode. Much of the impetus for "deregulation," which was a worldwide movement in the 1990s, came from the realization that much government activity concerns private goods where markets should be lubricated, rather than government intruding directly in the process of allocation. For example, the realization that transportation by railroad, airplane, and barge are private services that should be supplied by free markets has led to the dismantling of the Interstate Commerce Commission, the Civil Aeronautics Board, and other regulatory agencies in the United States.

One way to contrast private and public ownership is in terms of transaction costs. Private ownership imposes various transaction costs of private enforcement and exchange. Public ownership imposes transaction costs in terms of public administration and collective decision making. To illustrate the difference, consider two possible ways to control air pollution from a factory. The private property approach is to grant each property owner the right to clean air, protected by the remedy of compensatory damages. This method will result in many landowners suing for damages or bargaining to settle out of court. Alternatively, the public property approach would declare that clean air is a public good, and assign the task of air quality control to a government agency. This method will result in political bargaining and regulations. From this perspective, the choice between private and public ownership should depend on whether the costs

of private enforcement and exchange are more or less than the costs of public administration and political bargaining.

In the next chapter we will continue developing these themes by discussing two important questions: For what specific resources is private ownership more efficient than public or communal ownership and vice versa? And under what circumstances should government be allowed to take private property from citizens?[24]

QUESTION 4.15: If everyone has free access to a public beach, who, if anyone, has the power to control the use of this resource?

QUESTION 4.16: Discuss how to adjust private and public property rights to promote ecotourism in Africa.

VII. What May Owners Do with Their Property?

We used the theory of private and public goods to answer the question, "What can be privately owned?" Closely related to the theory of public goods is the theory of externalities, which we discussed in Chapter 2. Now we return to that theory in order to answer the question, "What may owners do with their property?"

Legislation imposes many restrictions on what a person may do with his or her property. But at common law there are relatively few restrictions, with the general rule being that any use is allowed that does not interfere with other peoples' property or other rights. Indeed, we could say that common law approximates a legal system of *maximum liberty*, which allows owners to do anything with their property that does not interfere with other people's property or other rights. The restriction of noninterference finds justification in the economic concept of *external cost*. Recall that external costs are those costs involuntarily imposed on one person by another. Because market transactions are voluntary, externalities are outside the market system of exchange—hence their name. For example, a factory that emits thick, cloying smoke into a residential neighborhood is generating an externality. In Example 3 at the beginning of this chapter, the stench from the cattle feedlot is an externality that interferes with Foster's enjoyment of her house. In Example 4, the development of Bloggs's wetlands will interfere with the town's enjoyment of its rivers and streams. Notice that these types of interference are like a public good in that they affect many property owners. There is, as it were, no rivalry or exclusion from smelling the feedlot's stench among Foster and her neighbors. These forms of interference are thus like a public good, except they are bad rather than good.

---

[24] We are not, of course, suggesting that the current division of responsibility between public and private providers of goods and services necessarily follows the rules we have just set down. That is, there are current instances of the government provision or subsidization of private goods and of the private (under-) provision of public goods. The extent to which these anomalies exist and why they persist are two of the central concerns of the branch of microeconomic theory called "public choice theory."

We have already explained why markets cannot arise to supply public goods efficiently. The same set of considerations explains why private bargaining cannot solve the problem of externalities, or, as we called them in a previous section, public bads. To illustrate, suppose that Foster had enough money to pay the feedlot to stop emitting its stench. If she made this private deal with the feedlot, all of her neighbors would also benefit but without having to pay for that benefit. This fact suggests that Foster will not pay the feedlot to stop its malodorous activities. More generally, the free-rider problem prevents private bargaining solutions to the problem of externalities or public bads. Some form of legal intervention is called for. One possibility is a rule forbidding involuntary invasion, supported by provisions for remedies if that invasion takes place. We have already noted how bargaining theory can help to design the form that remedy should take, namely, the payment of compensatory money damages. An alternative remedy that we will consider in the following chapter is regulation of the public bad or external-cost-generating activity by an administrative agency.

By contrast, *private* bads may be self-correcting through private agreements (recall the rancher-farmer example), so that there may be no need for an intrusive legal solution. Instead, the courts can stand prepared to issue an injunction in the confident expectation that they will seldom be required to do so.

VIII. On Distribution

We have developed an economic theory of property based on efficient ownership. However, some critics of economics believe that property law should be based on distribution, not efficiency.

Some people think that government should redistribute wealth from rich to poor for the sake of social justice, whereas other people think that government should avoid redistributing wealth, allowing individuals to receive all the rewards of their hard work, inventiveness, risk-taking, and astute choice of parents. Like the rest of the population, economists disagree among themselves about redistributive *ends*. However, economists often agree about redistributive *means*.

Given the end of redistribution, economists generally prefer to pursue it by the most efficient means. For each dollar of value transferred from one group to another, a fraction of a dollar is typically used up, as, for example, in administrative costs. The most efficient means of redistribution uses up the least value to accomplish the transfer. Chapter 1 illustrated this fact by the example of ice cream melting during its transfer across the desert from one oasis to another. Another example is the percentage of donations that a charity spends on administrative costs. Many economists believe that redistributive goals can be accomplished more efficiently in modern states by progressive taxation than by reshuffling property rights. Besides avoiding waste, more efficient redistribution generates more support from the people who must pay for it. If the economists are right, redistribution for social justice should focus mostly on taxation and expenditure, not property rights.

Progressive taxation and expenditure is usually more efficient than reshuffling property rights to achieve redistribution for a variety of reasons. The most wasteful