Introduction to Property Rights and the Law

You can begin your review of Cooter and Ulen with Chapter 3, "An Introduction to Law and Legal Institutions." You should understand the important role that our courts have played in developing the common law. Our in-class discussion of economics and the law begins with Chapter 4, "An Economic Theory of Property."

What is property? The easy answer is that we know it when we see it. The concept of property, however, may encompass things that cannot be seen. Music, inventions, computer programs are all ideas that can be written in a corporeal form, but their primary existence is in the undefined dimension of the mind.

Lawyers like to think of property as a bundle of rights. Statute law and court decisions can add or subtract rights from that bundle. For example, home ownership may be viewed as a bundle of rights. You may sell your home to others or plant a towering oak in your backyard, “Your home is your castle.” But unlike a medieval king, there are some things you may not be allowed to do with your home. Zoning regulations may prevent you from sheltering unrelated individuals or running a business out of your basement. Plat restrictions may limit the height of a fence you wish to build or even limit the color you may paint your home.

In most cases a reduction in your bundle of rights increases the rights of someone else. But changes in property rights are not always a zero sum game. There can be changes that benefit all individuals. A zoning restriction that requires homeowners keep the front yard free of trash may raise the market value of all homes. However, too much change in the assignment of property rights can create problems for market participants. Increasing uncertainty as to how future rights may be defined can erode all existing rights. Items with uncertain ownership are not easily transferred in private markets; thus, limiting the right of alienability and creating economic inefficiency. Even some certain rights, however, are not transferable. Our society considers certain rights inalienable. For example, you may not sell yourself into slavery. Although, there may be a gray line between slavery and a long-term labor contract or indentured servitude.

Economists rarely talk about rights. They are much more likely to begin their analysis with the given distribution of rights. However, changes in property rights can affect total wealth, market prices and the distribution of income. Economists usually assume a positive relationship between property rights and personal wealth. This is because an expansion of property rights increases our choices, and an increase in choice typically makes us better off. There are, however, counter examples. As previously stated, zoning laws may restrict individual choice, but enhance group wealth. For example, by restricting noxious individual uses of property, zoning laws can increase the overall value of property in the community.

There is the possibility that restrictions on individual choice can enhance welfare whenever there are external benefits or costs. These are benefits or costs that pass outside
the market mechanism and are imposed upon others. External costs are unavoidable costs that others must bear. They represent an uncompensated appropriation of another’s welfare.

Of course, almost everything we do has non-market effects. The color of my shirt or the deodorant I choose or don’t choose affects others. Were the mere existence of externalities an excuse for government restrictions on our choices, then there would be a rationale for a government restriction on every choice we make. We do not allow our government to intervene on this minute scale, because intuitively we know it would not make us all better off. We have seen enough of the inefficiency and waste accompanying government decisions to know it would only make us all worse off. There is not an all-knowing government that can accurately weigh the external benefits and costs of our clothing decisions and styling choices. Consequently, before we involve the government in the regulation of externalities we want to be sure that the benefit of the intervention outweighs the related cost. For that reason we would not want the government to interfere in those minor daily choices that have a minimal extra-market impact on others. For major externalities we might only permit government interference when it is not likely that the private market will internalize the externality. Moreover, for those situations where we view government intervention as necessary, we might prefer a minimalist approach.

Efficiency

When economists discuss efficiency they usually have two standards in mind, productive (technical) efficiency and allocative efficiency. **Productive efficiency** exists when we maximize output given a cost constraint or minimize cost given an output constraint. **Allocative efficiency** exists when we produce the bundle of goods that maximizes society’s welfare given current resources. Thus, reallocating resources to produce an alternative bundle would reduce welfare. Accordingly, it is possible to have productive efficiency without allocative efficiency. Legal decisions can have an impact on both productive efficiency and allocative efficiency. However, property rights disputes are usually primarily concerned with allocative efficiency.

The economic standard for allocative efficiency is the **Pareto optimum**. We are at a Pareto optimum when we can no longer engage in an exchange that enhances the welfare of one person without making someone else worse off. The Pareto optimum is an objective exchange-based criterion. The Pareto rule assumes our inability to make interpersonal comparisons of utility. Were it possible to make such comparisons we could weigh the relative change in utilities as resources were shifted among individuals. We could unequivocally state that total social utility would be increased even though some might be worse off.

The **Kaldor-Hicks standard** of efficiency is somewhat looser than the Pareto standard. A movement toward a Pareto optimum assumes that an exchange takes place and compensation is paid so that both parties to the exchange are better off. To have a Kaldor-Hicks efficient decision we need only assume that a side payment could be made.
that would leave all parties better off. Compensation is not required. Accordingly, application of the Kaldor-Hicks standard could leave some individuals worse off. The standard includes two tests, the Kaldor criterion and the Hicks criterion. Together, the two tests ensure that income effects do not taint the result. The Kaldor criterion requires that the gainers are willing to pay the minimum that would be needed to gain the consent of the losers. (The losers have the property right.) Alternatively, the Hicks criterion insists that the maximum amount losers are willing to pay the gainers in order for them not to implement the change is less than they are willing to accept. (The gainers have the property right.) The Kaldor criterion assumes that the right to proceed could be purchased from the losers; whereas the Hicks criterion assumes that the right to the status quo could not be purchased from the winners. The Kaldor-Hicks standard provides the rationale for governmental benefit-cost analysis. Thus, resources may be reallocated and results may be attained that would not be achieved through private exchange.

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<tr>
<th>Kaldor-Hicks Standards</th>
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<td><strong>Kaldor</strong></td>
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<td><strong>Hicks</strong></td>
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(Note: If you need a mind hook to remember this L is next to K in the alphabet (losers have the right) and G is next to H (gainers have the right).

For example, suppose the government wanted to build a new highway next to a residential community. The highway benefits the wider community, but imposes congestion costs on the nearby residents. If the benefits to the wider community were $1,000 and the consent of the nearby residents could be gained by paying them $900, the highway is Kaldor efficient. On the other hand, if the residents had to pay the community to remove the highway, the payment would lower their real wealth. Therefore, although the nearby residents want $900 for their consent, they might not be willing to pay $1,000 for removal of the highway. If the maximum amount the nearby residents are willing to pay for highway removal is less than the pro-highway community is willing to accept, then the highway is Hicks efficient. When both conditions hold, the highway is Hicks-Kaldor efficient and the government builds the highway.

The Coase Theorem

Given some minimal restrictions, it can be assumed that private market transactions will produce a Pareto optimal result. Court decisions and legislative actions that attempt to deal with externalities often leave losers uncompensated. Consequently, they may be Kaldor-Hicks efficient while also being Pareto inefficient. The Coase Theorem sets out conditions under which the private market will internalize an externality and under which the private market will produce an efficient result without government intervention. Consequently, it can help distinguish situations in which government action is necessary from those in which it is unnecessary.
The Coase Theorem states when property rights are well-defined and transactions costs are zero, all externalities will be internalized. Transactions cost include the cost of private exchanges. They include search costs, bargaining costs, contractual costs and legal costs. Pareto efficiency is not dependent on the initial distribution of property rights. Given any initial distribution of rights and zero transaction costs, the result will be Pareto efficient because all property will find its way through private market exchange to whoever values it the most. However, when transactions costs are high a value enhancing trade may not occur. Thus, the current distribution of ownership may not achieve a Pareto optimum. Accordingly, the assignment of rights may determine whether or not society achieves a Pareto optimum. Assuming the zero transactions costs, the initial distribution of rights has no impact on the movement to an efficient solution. However, with high transactions cost a more Kaldor-Hicks efficient result may be achieved by imposing an initial distribution that allocates property to those who value it the most. Thus, if the initial distribution of property rights is Kaldor-Hicks efficient there will be no opportunity for a Coasian bargain. The property right will be already allocated to the party that values it the most.

Coases’ theory highlights the cost of using the market. We can lump all of these costs under the heading, transactions costs. These costs can have many and varied components. It is these costs that provide the incentive for combining a number of production tasks within a single firm. Should GM purchase auto parts from independent suppliers or should it manufacture its own? The efficient decision will depend on comparing the cost of using the market versus the cost of internal production control.

Coase illustrated the application of his theorem with the tale of the farmer and the rancher discussed in Cooter and Ulen. The rancher’s cattle if unrestrained will damage the farmer’s crops. The damage to the farmer’s crops is an external cost of ranching. However, a less common view might hold that the damage to the farmer’s crops is a relevant cost of farming. If the farm were not located next to the ranch, there would be no damage to the farmer’s crops. Since the externality depends on both the location of the rancher and the farmer, either could be said to have caused the problem.

Coase demonstrated that regardless of who has the initial right, the right will find its way to whoever values it the most when transactions costs are zero. The final result will be technically efficient. In a world of costless transactions, all externalities will be internalized and the private market will achieve an efficient result that is independent from the distribution of rights. In the rancher-farmer example, the easiest way to find the efficient result is to ask what would happen if a single owner operated both the farm and the ranch. An efficient result should maximize the joint profits of the farm and the ranch. Were that not so, it would be possible to make a side payment that left one party better off without injuring the other party. Obviously, if there were single ownership, the maximization of joint profits would be the objective.
Externalities and Nuisances

When economists speak of externalities, the courts often prefer to call them nuisances. When you interfere with my right to enjoy my property, you have created a nuisance. Nuisances can be either public or private in nature. When your tree casts a shadow over my swimming pool, there is a private nuisance. When an iron smelting company emits pollutants into the atmosphere there is a public nuisance. Private bargains can eliminate nuisances. However, since transactions costs are likely to large with respect to public nuisances they are not likely to be internalized through private bargains. Consequently, the Coase theorem suggests that the legal determination of property rights regarding questions of public nuisances will have a significant impact on efficiency.

The Protection of Property Rights

Property rights may be protected with either legal remedies or equitable remedies. **Legal remedies** entail monetary compensation for damages. The objective of compensatory damages is to make the plaintiff whole. This places the injured party in the same financial position she or he was in before the injury. **Equitable remedies** consist of court orders requiring action or inaction by one of the parties to the property dispute.

Intellectual Property

Intellectual property is the creation of the intellect that has commercial value.\(^1\) It provides some utility in either consumption or production. Intellectual property has relatively large up-front costs that are incurred during its creation. Variable costs and marginal cost associated with the dissemination of intellectual property are relatively low, in some cases approaching zero. Accordingly, without legal protection the market value of intellectual property would tend toward short-run marginal cost. A low marginal cost price would encourage efficient use but discourage future investment and production. The cost of copying a musical performance is close to zero. However, the free distribution of artistic creations would discourage future artists.

Legal protections for intellectual property include patents, copyrights and trademarks. These protections vary in application and duration, with patents providing the shortest duration and trademarks the longest. Lengthening the duration of the property right increases the present value of the intellectual property and enhances the incentive to engage in intellectual production. However, it also reduces the benefits related to free dissemination. As is typical in economic analysis, the optimal duration will depend on

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marginal benefits and marginal costs. The marginal benefit of duration drops off dramatically over longer periods.

Suppose a copyrighted work was expected to yield revenue of $1 per year in perpetuity at a discount rate of 10 percent. Under a system of perpetual copyright, the present value of this infinite stream of income would be $10 \left(\frac{1}{r}\right). Under a limited copyright term \(t\), the present value would be \(\frac{1 - e^{-rt}}{r}\). So even if \(t = 25\), which is much shorter than the current term, the present value of the copyright (at \(r = .10\)) would be $9.08, which is more than 90 percent of the present value of the perpetual copyright. For a work by an author who died at the age of 80 and had written the work at 40, the copyright term is 90 years under a rule of life plus 50 years (80 – 40 = 50) and 110 years under a rule of life plus 70 years. The present value of a 90-year copyright that yields $1 a year in revenue is $9.998, rising trivially to $9.9997 for the 110-year copyright.\(^2\)

Update: 1/4/09

\(^2\) Ibid., p. 60.