

BasicMicro. Economics: An Outline

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Part II Chapter Fifteen

Property Rights and Markets

The optimal solution to the allocation problem requires the participants to have accurate information about the marginal costs and marginal benefits associated with specific alternatives. Most of Neoclassical microeconomics is a story about the way market exchange reveals, communicates and uses individual evaluations about marginal benefits (MB) and marginal costs (MC). The information about MC and MB revealed by market exchanges (like all information) is never perfect. Problems arise when exchange is not voluntary and property rights are attenuated. Pure competition is one way to ensure that no one buyer or seller has the ability to alter the outcome of market exchanges and the information revealed in prices. The existence of market power allows a buyer or seller to influence the outcome of a market exchange and distort the information about MB and MC.

Attenuated or weakened property rights also may distort information about MB and/or MC and result in an allocation that is less than optimal. "Nonattenuated" or strong private property rights have three important characteristics; exclusive, enforceable, and transferable.

A. Private Property Rights

Private property rights have three important characteristics that contribute to the efficient functioning of the market; exclusivity, enforceability and transferability. A lack of any one of these characteristics will distort market exchanges and result in less than optimal results.

Furubotn and Pejovich define property rights as:

Property rights are understood as sanctioned behavioral relations among men [sic] that arise from the existence of goods and pertain to their use. These relations specify the norms of behavior with respect to goods that each and every person must observe in his daily interactions with other persons, or bear the cost of non-observance. The term "good" is used here for anything that yields utility or satisfaction to a person. Thus, and this point is important, the concept of property rights in the context of the new approach applies to all scarce goods. The concept encompasses both the rights over material things (to sell my typewriter) as well as 'human' rights (the right to vote, publish etcetera). The prevailing system of property rights in the community is, then, the sum of economic and social relations with respect to scarce resources in which individuals stand to each other. [Eirik Furubotn and Svetozar Pejovich, The Economics of Property Rights, Cambridge, Mass.: Ballenger, 1974, p 3]

This definition implies that an individual has a bundle of rights or claims empowering him or her to control the outcome of specific events or alternatives. Secondly, it implies these claims are sanctioned by social

institutions and are social in character. Private property rights implies that the individual has the power to determine the use of an economic "good" and incurs all benefits and cost associated with that use.

(1) **Transferability**

Clearly a good must have property rights that can be transferable before it can be exchanged in a market. In some cases it may be physically impossible to transfer a property right (I cannot buy some one else's good health or height or athletic skills). In other cases it may be illegal to transfer or acquire the property rights to a good (I cannot legally sell my kidney in the US or UK). In cases where it is technically possible to transfer a property right but illegal, a "black market" may emerge. Part of the cost of acquiring or selling a good is the risk an punishment of violating the law. There is a large literature on the economics of crime not addressed here.

(2) **Enforceability**

Property rights can be enforced in formal or informal ways. Both Adam Smith and Karl Marx believed that one of the primary functions of government was to enforce property rights. Explicit laws enforced by the state are often used to define and determine the nature of property rights. Property rights can also be enforced by implicit social institutions. Respect for others and social sanctions are important determinants of property rights.

The property rights to "material things" are more obvious and clear cut than intellectual property rights. The property rights to computer software, books, music and the like are more difficult to define and enforce due the nature of the goods and the technical ability to copy and communicate. Patents and copyright laws are attempts by the government to assign and protect property rights.

(2) **Exclusivity**

When private property rights are exclusive, all the costs and benefits of an alternative are exclusive to the person(s) engaged in the exercise of the property right. In some cases the exchange or use of an economic good may have "third-party" or "spillover" effects. There may be costs or benefits that impact individuals who are not engaged in the actual use of the good. When this happens it is called an **externality**. Externalities can be positive (a benefit is conferred on a third party) or negative (a cost is imposed on individuals). These externalities may occur in consumption (smoking a cigar can impose costs on others) or production (producing paper generates air and/or water pollution).

In some cases it is technically impossible to exclude (prevent an individual) individuals from the consumption and benefits of a produced economic good. These are called **collective or public goods**. National defense is an example of a public good. In other cases it may be technically possible to exclude individuals from the benefits of a good but the cost of doing so makes it impractical. These are often referred to as **quasi-public goods**.

There are also "fugitive or fugacious" goods. A fugitive good is one that is owned by no one until some one "captures" it. The process of capture and use of these goods imposes cost on others. These goods are called **common property resources**."

B. "Market Failure" and Property Rights

With the presence of externalities, public or collective goods and common property resources, the information generated by market transactions may be distorted and incorrect signals result in misallocation of resources.

(1) Externalities

Externalities may be positive or negative .

a. Positive Externality

A positive externality exists when there are "Social Benefits" that result from a market transaction or the use of a good.

In Figure X.B.1 a positive externality is shown. Individual J perceives the marginal costs of X as MC and the marginal benefits as MB_p . To optimize the net benefits the individual would want X amount. However, there are other individuals who benefit from the J's use of good X. The MB of others or society is MB_s . The marginal benefit to society is $MB_p + MB_s$. The optimal amount of good X is X^* , not X. In the case of a positive externality, market exchanges result in less than the optimal amount of the good. One solution is to subsidize good X by the amount $V^* - A$.

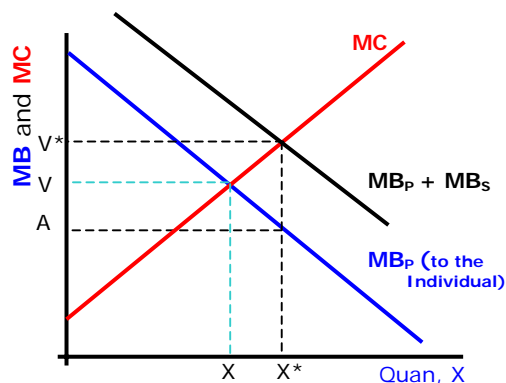


Figure X.B.1

b. Negative Externality

A negative externality exists when an alternative results in costs being imposed on individuals who are not involved with the transaction or use of the good.

An individual who smokes a cigarette in a restaurant has made a decision to smoke based on the marginal benefits and marginal costs to themselves. The second hand costs impose marginal costs on others. In Figure X.B.2 the individual recognizes the costs and benefits to themselves as MC_p and MB_p . Recognizing these costs and benefits, the individual will maximize net benefits by consuming X amount of good X. Since the consumption of good X imposes costs on others, the $MC_p + MC_s$ reflects the marginal costs to the individual and society. The optimal amount of the good from a social perspective is X^{**} rather than X. A negative externality results in decisions to produce and consume more than the socially optimal amount of a good. One solution is levy a tax of $V^* - A$ on good X.

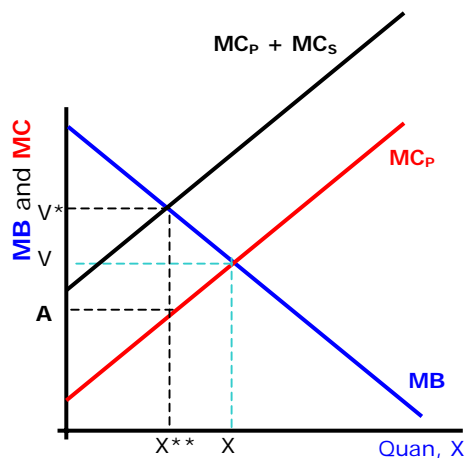


Figure X.B.2

(2) Public or Collective Goods

A public good has two important characteristics. First, it is technically impossible to exclude any individual from consuming the good.

Second, the marginal cost of the additional consumer is zero.

The optimal result in a market is that the output occur at the level where the $MB = MC$ and the price should reflect both the MB and MC ;

$$MB = P = MC$$

When the MC of another user is zero the optimal price is also zero. It is not possible for a private provider to produce and offer a public good for consumption (unless they are an altruistic philanthropist). National defense is the primary example of a public good. A private market will not produce a public good.

Since individual cannot be excluded and there is no reason for them to contribute to the costs of production, they become "free riders." In some cases free riders can be encouraged to contribute through social mechanisms such as feelings of philanthropy or guilt. In cases where a society decides to undertake an alternative, and an individual prefers not to be a participant, the individual may become a forced rider.

(3) Common Property

A common property resource is a fugitive resource that is owned by the individual who "captures" it. The use of a common property resource imposes costs on others in the society. Buffalo, whales, "commons" and water quality are examples of common property resources.

Garret Hardin's article on the *Tragedy of the Commons* discusses the tradition of a common pasture in villages. Each person can use the commons to graze their animal. Since no one owns the commons the incentive is to get another animal to graze. Since everyone has the same incentive every one takes more animals to graze and eventually the commons is overgrazed and every one loses.