8.8: Regulation of Externalities Through Property Rights

The economist Ronald Coase, whom we mentioned earlier in the context of the optimal boundaries of the firm and transaction costs, postulated that the problem of externalities is really a problem of unclear or inadequate property rights. See Coase (1960). If the imposition of negative externalities were considered to be a right owned by a firm, the firm would have the option to resell those rights to another firm that was willing to pay more than the original owner of the right would appreciate by keeping and exercising the privilege.

For those externalities that society is willing to tolerate at some level because the externality effects either are acceptable if limited (e.g., the extraction of water from rivers) or come from consumption that society does not have a sufficiently available alternative (e.g., air pollution caused by burning coal to generate electricity), the government representatives can decide how much of the externality to allow and who should get the initial rights. The initial rights might go to existing sellers in the markets currently creating the externalities or be sold by the government in an auction.

An example of this form of economic regulation is the use of “cap and trade” programs designed to limit greenhouse gas emissions. In cases where this has been implemented, new markets emerge for trading the rights. If the right is worth more to another firm than to the owner, the opportunity cost of retaining that right to the current owner will be high enough to justify selling some of those rights on the emissions market. If the opportunity cost is sufficiently high, the owner may decide to sell all its emissions rights and either shut down its operations or switch to a technology that generates no greenhouse gases.

If the value of emissions rights to any firm is less than the externality cost incurred if the right is exercised, the public can also purchase those externality rights and either retire them permanently or hold them until a buyer comes along that is willing to pay at least as much as the impact of the externality cost to parties outside the market exchange.