Chap 10: Externalities

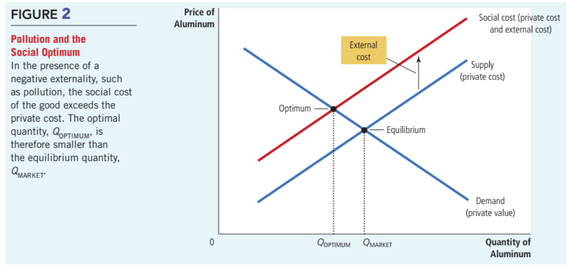
Externalities and Market Inefficiency

externality: the uncompensated impact of one person's actions on the well-being of a bystand

In the presence of externalities, society's interest in a market outcome extends beyond the well-being of buyers and sellers who participate in the market to include the well-being of bystanders who are affected indirectly.

Welfare Economics: A Recap

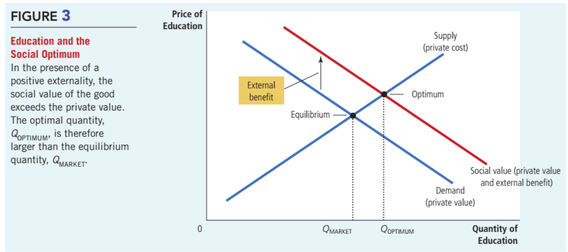
Negative Externalities



If the tax accurately reflected the external cost of pollutants released into the atmosphere, the new supply curve would coincide with the social-cost curve. In the new market equilibrium, aluminum producers would produce the socially optimal quantity of aluminum.

internalizing the externality: altering incentives so that people take into account the external effects of their actions

Positive Externalities



The appropriate response in the case of positive externalities is exactly the opposite to the case of negative externalities. To move the market equilibrium closer to the social optimum, a positive externality requires a subsidy.

Technology Spillovers, Industrial Policy, And Patent Protection

Public Policies toward Externalities

Command-and_Control Policies: Regulation

The external costs to society far exceed the benefits to the polluter. The government therefore institetes a command-and-control policy that prohibits this act altogether.

Virtually all forms of transportation--even the horse--produce some undesirable pollution by-products. But it would not be sensible for the government to ban all transportation. As a result, instead of trying to eradicate pollution entirely, society has to weigh the costs and benefits to decide the kinds and quantities of pollution it will allow.

Market-Based Policy 1: Corrective Taxes and Subsidies

corrective tax: a tax designed to induce private decision makers to take into account the social costs that arise from a negative externality

Economists usually perfer corrective taxes to regulations as a way to deal with polllusion because they can reduce pollution at a lower cost to sociaty.

The regulation requires each factory to reduce pollution by the same amount. An equal redution, however, is not necessarily the least expensive way to clean up the water.

Economists also argue that corrective taxes are better for the environment. Under the command-and-control poliry of regulation, the factories have no reason to reduce emission further once they have reached the target of 300 tons of glop. By contrast, the tax gives the factories an incentive to develop cleaner technologies because a cleaner technology would reduce the amount of tax the factory has to pay.

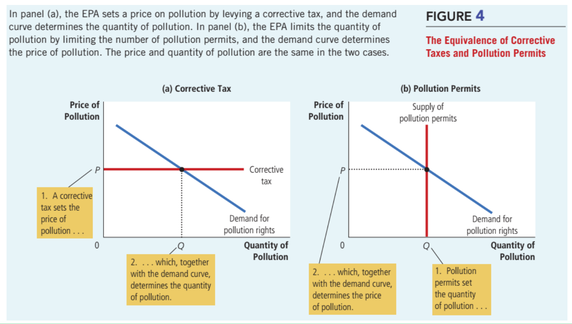
Why is Gasline Taxed so heavily?

- Congestion
- Accidents
- Pollution

Market-Based Policy 2: Tradable Pollution Permits

If the EPA allows firms to make these deals, it will, in essence, create a new scare resource: pollution permits. A market to trade these permits will eventually develop, and that market will be governed by the forces of supply and demand. The invisible hand will ensure that this new market allocates the right to pollute efficiently.

Those firms that can reduce pollution at a low cost will sell whatever permits they get, while firms that can reduce pollution only at a high cost will buy whatever permits they need.



EPA can achieve any point on a given demand curve either by setting a price with a corrective tax or by setting a quantity with pollution permits.

In some circumstances, however, selling pollution permits may be better than levying a corrective tax. Suppose the EPA wants no more than 600 tons of glop dumped into the river. But because the EPA does not know the demand curve for pollution, it is not sure what size tax would achieve that goal. In this case, it can simply auction off 600 pollution permits. The auction price would yield the appropriate size of the corrective tax.

Objections to the Economic Analysis of Pollution

"We cannot give anyone the option of polluting for a fee." This comment from the late Senator Edmund Muskie reflects the view of some environmentalists. Clean air and clean water, they argue, are fundamental human rights that should not be debased by considering them in economic terms.

People face trade-offs. Certainly, clean air and clean water have value. But their value must be compared to their opportunity cost.

A clean environment can be viewed as simply another good.

The lower the price of environmental protection, the more the public will want. The economic approach of using pollution permits and corrective taxes reduced the cost of environmental protection and should, therefore, increase the public's demand for a clean environment.

Private Solutions to Externalities

The Types of Private Solutions

The Coase Theorem

Coase theorem: the proposition that if privete parties can bargain without cost over the allocation of resources, they can solve the problem of externalities on their own

The distribution of rights is not irrelevant: It determines the distribution of economic well-being.

The Coase theorem says that private economic actors can potentially solve the problem of externalities among themselves. Whatever the initial distribution of rights, the interested parties can reach a bargain in which everyone is better off and the outcome is efficient.

Why Private Solutions Do Not Always Work

The Coase theorem applies only when the interested parties have no trouble reaching and enforcing an agreement.

transaction costs: the costs that parties incur during the process of agreeing to and following through on a bargain

The recurrence of wars and labor strikes shows that reaching agreement can be difficult and that failing to reach agreement can be costly. The problem is often that each party tries to hold out for a better deal.

Reaching an efficient bargain is especially difficult when the number of interested parties is large, because coordinating everyone is costly.

When private bargaining does not work, the government can sometimes play a role. The government is an institution designed for collective action.