

# *Externalities: How Actions Affect Others*

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## **WHAT ARE EXTERNALITIES?**

People sometimes make private decisions that have an unintended impact on others. These are called external effects. They occur when one person or group does something that affects other people without the usual costs or payments.

There are many examples. Drivers sometimes lower their car windows and crank up the radio, blaring the music. At no cost to such drivers, they are imposing their music on innocent people who may not want to listen to it. A student might be trying to do homework in the school library while others seated at a nearby table talk incessantly. At no cost to them, the talkers are imposing their conversation on the innocent student.

Businesses sometimes act in a similar fashion. When businesses are deciding what to produce and how to produce it, they consider only their internal costs the costs to the firm. They do not take account of costs that might be imposed on others. These are called externalities. Externalities are of two sorts.

## **NEGATIVE EXTERNALITIES**

A negative externality harms others. Air, land, and water pollution are common examples. When a business dumps waste into a river, for example, it saves money by using the river, in effect, as a free waste-disposal service. However, people who wish to use the river for recreation or for drinking water are harmed.

## **POSITIVE EXTERNALITIES**

A positive externality helps others. Education is widely regarded as a positive externality. Education helps not only the people being educated; it helps all of us. An educated person can more easily get a job and is less likely to require expensive forms of support by the government. Compared to those with less education, educated people commit fewer crimes, vote more often, and have lower medical expenses. Government sometimes subsidizes, or provides aid, for activities that create positive externalities, such as education.

Scientific research is also widely regarded as a positive externality. Government and university labs have produced many technological breakthroughs with positive externalities. The development of hybrid seed corn and the Internet are examples.

## **WHO PAYS FOR EXTERNALITIES?**

Markets fail when negative and positive externalities exist and neither party pays for all the costs or all the benefits. A polluting factory and its customers don't pay for all the cost of making or using the products that pollute air or water.

Government, as a regulator, can force businesses and their customers to pay all the costs of production by taxing pollution, imposing direct controls, or demanding that waste be cleaned. However, government actions designed to clean up the environment also have costs. We will see later that in the name of an improved environment, government has pursued some costly programs that have not been effective.

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## QUESTIONS FOR DISCUSSION

A. What are externalities?

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B. Name at least two activities that involve negative externalities.

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C. Name at least two activities that involve positive externalities.

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D. Why might governments choose to take action when markets produce negative and positive externalities?

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E. Many citizens believe that education has positive externalities. Explain why this is so.

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## What Would You Do?

### **POLLUTION PROBLEMS**

A manufacturing plant pollutes a nearby river, much to the displeasure of the residents downstream. At a town meeting, residents discuss three proposals for solving the pollution problem.



**Based on your understanding of externalities, choose the proposal you think is best and defend your selection.**

- Proposal 1** Because the downstream residents will receive the benefits of pollution control, they should pay for it. This is a clear case of external benefits or positive externalities. A property tax should be placed on the residents downstream.
- Proposal 2** The government should force the plant to close. That is the only way to stop all the pollution. There is no reason for the downstream residents to suffer. Any other solution still leaves some dirty water.
- Proposal 3** The company is not counting all of its costs of production. Keeping the river clean should be one of these costs. A tax, called an effluent tax, should be placed on the company for each cubic foot of polluted water it releases into the river.
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### **PLAY BALL?**

The National League has awarded a new franchise for a baseball team to be established in Indianapolis, Indiana, but only if the new team, the Indiana Racers, has a major league stadium designed specifically for baseball. Indianapolis will have to build a new stadium if a team is to be awarded a franchise in that city. Proponents argue that the team will generate new business, provide jobs, increase tax revenues, and promote tourism in Indianapolis because of the greater national exposure. Opponents argue that most of the money spent on baseball games will be by Indianapolis residents, who will simply reduce their spending on other things. Thus,

there will be no net job creation or tax revenues, and few new tourists coming to Indianapolis in the summer. Others say that the stadium, wherever it is located, will cause property values to go down and create traffic and parking problems and noise pollution. Voters have three proposals before them.

**Using your knowledge of externalities, make an argument in support of EACH proposal. What assumptions concerning external costs and benefits does each proposal make?**

- Proposal 1** No city money should be used in the construction of the stadium.
- Proposal 2** The city should place a tax on each ticket sold to pay for the stadium.
- Proposal 3** The city should build the stadium and lease the right to play there to the baseball team, at a subsidized rate.