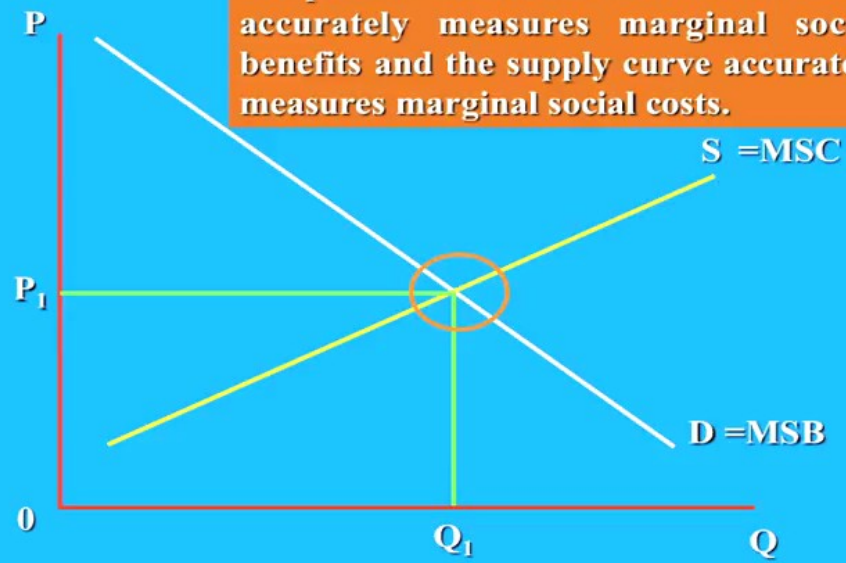


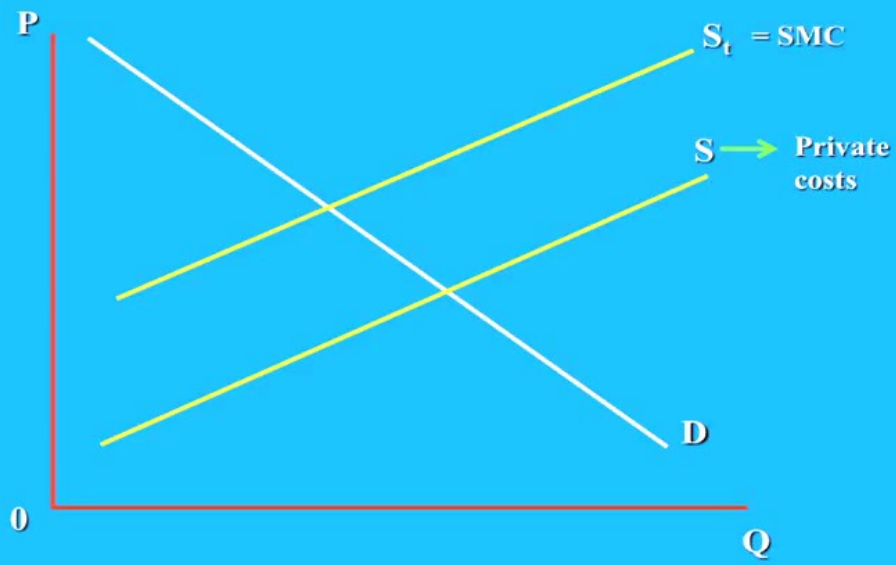


LECTURE TWELVE - PART SIX

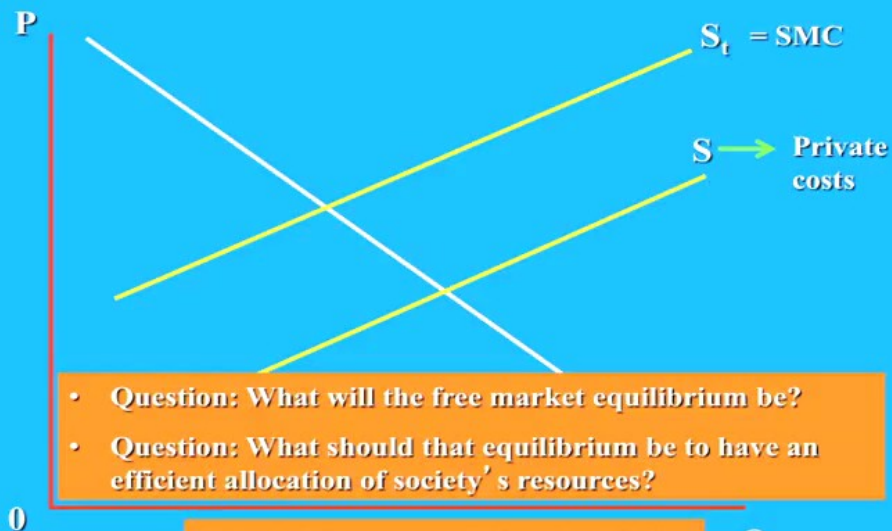
One of the key assumptions of perfect competition is that the demand curve accurately measures marginal social benefits and the supply curve accurately measures marginal social costs.



A Negative Externality



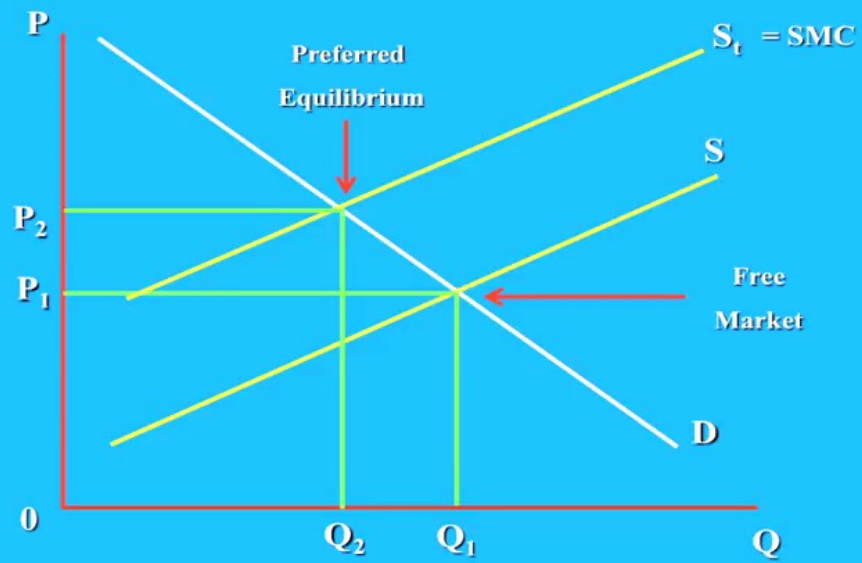
A Negative Externality



**Pause the presentation now if
you want to do this exercise.**

Q

A Negative Externality



Positive Externalities

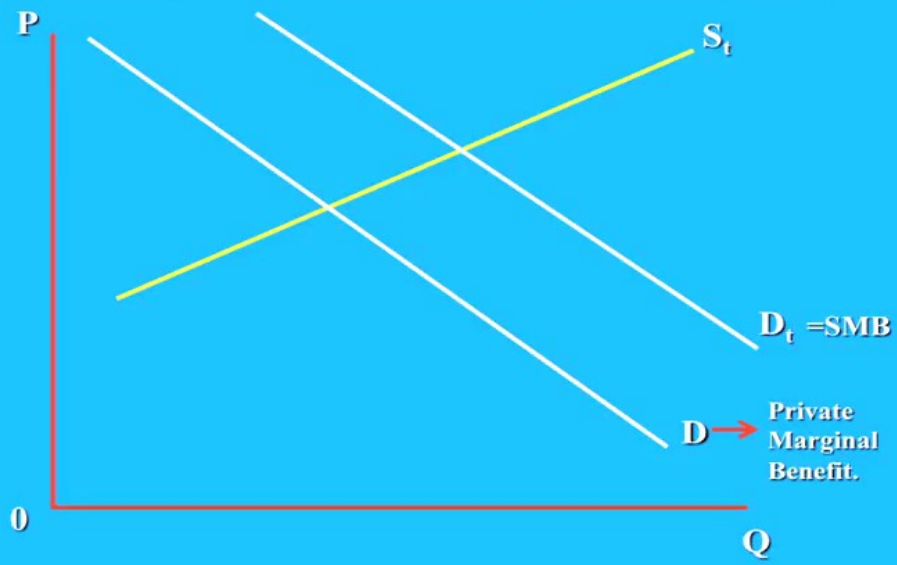


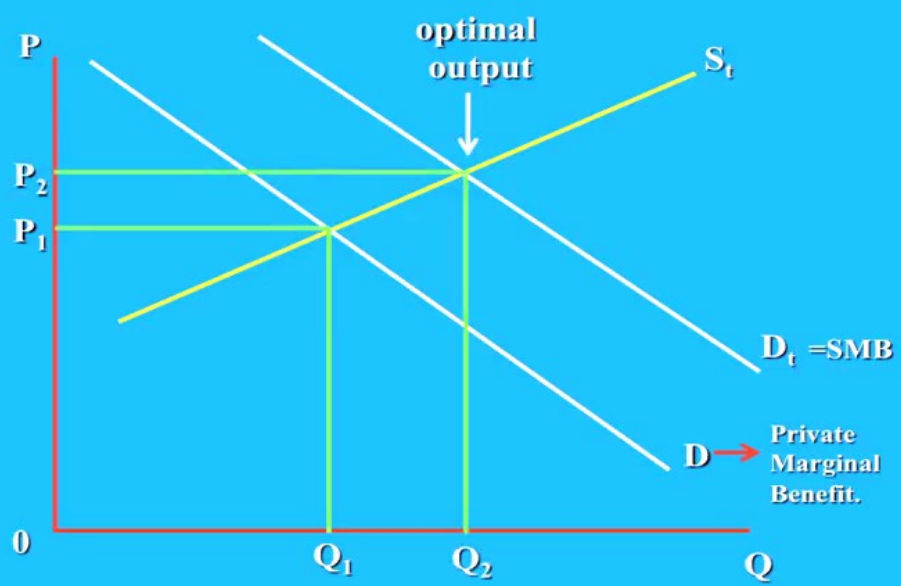
- Now, having seen the graph for a negative externality, can you draw one for a positive externality such as generated in our Sherlock Holmes example?

Pause the presentation now if you want to do this exercise.

Question: What will be the free market equilibrium?

Question: What should be the socially preferred equilibrium?





Let's Summarize

- **Negative externality:** The free market is likely to produce too much of the externality and too much of the good generating the externality.



In Contrast

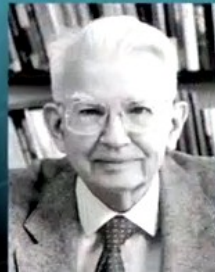
- **Positive externality:** The market under-supplies the good and generates too few spillover benefits.

Questions

1. Should the government intervene in the private marketplace to correct such externalities?
2. What form should such intervention take?

The Coase Theorem

- It helps to illustrate that government intervention into the marketplace may not be necessary because externalities can be solved through individual bargaining.
- **The Coase Theorem** was conceived by University of Chicago professor and Nobel laureate Ronald Coase.



Coase Argued That...

- Negative or positive externalities do not require government intervention where
 - (1) property ownership is clearly defined,
 - (2) the number of people involved is small, and
 - (3) bargaining costs are negligible.

An Example

- You live in a small town with a hundred other people.
- I own a tannery in that town that, in addition to producing leather, also stinks to high heaven.
- I make a lot of money from that tannery.
- You and your neighbors suffer a lot from the stench.

Assigning Property Rights



- Let's first assign the property rights to the air to me, meaning that under current law, I have a perfect right to pollute as much of the air as I want.

Question

How might Coase-type bargaining between your group and me resolve this issue?

The Coase Theorem Predicts

1. Your group might offer to pay me to reduce my output or, alternatively, simply buy my tannery and shut it down.
2. The payment will depend on how much profits my plant generates, how much your group values eliminating the discomfort caused by my plant, and how well each side negotiates.
3. If the value your group assigns to eliminating your discomfort is more than my profits, we may well come to some bargain!

Let's Switch Property Rights



- Assume *your* group owns the rights to the air and the only way I can produce my leather is to purchase from you the “right to pollute.”

Question

What will the Coase Theorem predict here?

In This Case

- I will have to pay your group at least as much as the value your group puts on having clean air.
- If my profits are high enough to afford that, I will presumably do so.
- If not, I will simply have to close my plant.

Assigning Property Rights Is Critical!

- This example illustrates that “who has to pay whom” to eliminate the externality is completely determined by the initial assigning of property rights!
- If I have the rights, your group pays me, and vice versa.

A Value Question

Who in this example should be assigned the property rights to the air, your group in town or me and my tannery?

If You Are Like Most People

- You probably said that the people in the town should own the rights to clean air as a matter of fairness.
- But suppose I told you that my factory was there first and that your group only recently moved into town. **Would this make a difference?**

How The Coase Theorem Breaks Down

- When the town has to pay me not to pollute, there has to be some mechanism to collect the money from the townspeople. This might be difficult.
- For example, some people may be bothered more than others by the stench and some may not be bothered at all.

Questions

1. Should everyone pay the same amount?
2. Should only those who are bothered pay?

The Free Rider Problem Redux

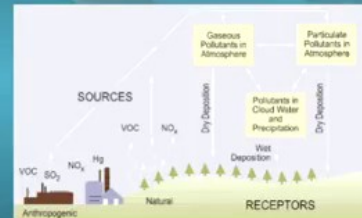
- How can we tell if people are telling the truth about how much the stench bothers them -- particularly if their payment will depend on their answer?

Key Point

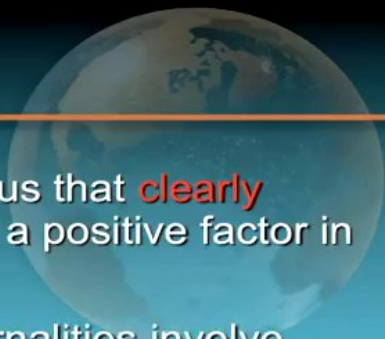
As the number of people involved in the negotiations increases, the Coase Theorem tends to breakdown.

Acid Rain

- Affects millions of people in U.S. and Canada.
- The vast number of affected parties can not negotiate an agreement.
- We must rely on both governments to find acceptable solutions.



The Broader Point



- The Coase Theorem reminds us that **clearly defined property rights** can be a positive factor in remedying externalities
- However, many negative externalities involve large numbers of affected people, high bargaining costs, and community property such as air and water.

The Tort System

- A second approach to internalizing externalities relies upon a legal framework of liability laws.
- This framework is known in legal circles as the wrongful act or "**tort system**."
- The idea behind torts is that the person or corporation that produces the negative externality is legally liable for any damages caused to other persons.

For Example

- The Ajax Degreaser Company regularly dumps leaky barrels of solvents into a nearby canyon owned by the Bar B Q Ranch.
- The Bar B Q Ranch discovers this dump site and traces the leaky barrels to Ajax.
- Under the tort system, Ajax will get sued.
- If Ajax loses, it will pay the Bar B Q Ranch for the cleanup and possible additional damages.

Tort System Limitations

- As with the Coase Theorem, the tort system has its limitations.
- Lawsuits are expensive, time-consuming, and have uncertain outcomes.
- Major time delays in the court system are commonplace.

Other Tort Problems



- Will the court or a jury accept your claim that your child's leukemia has resulted from the toxic wastes?
- Can you prove a specific firm is the source of the contamination?
- Are you willing to risk all your money to sue a deep-pocketed corporation with hundreds of millions of dollars in assets and a team of 50 lawyers?

The Biggest Tort Problem



- Many negative externalities do not involve private property, but rather property held in common.
- Indeed, it is the public bodies of water, public lands, and the public air that often bear the brunt of negative externalities.
- This observation leads us to our third approach to internalizing externalities: **direct government intervention.**