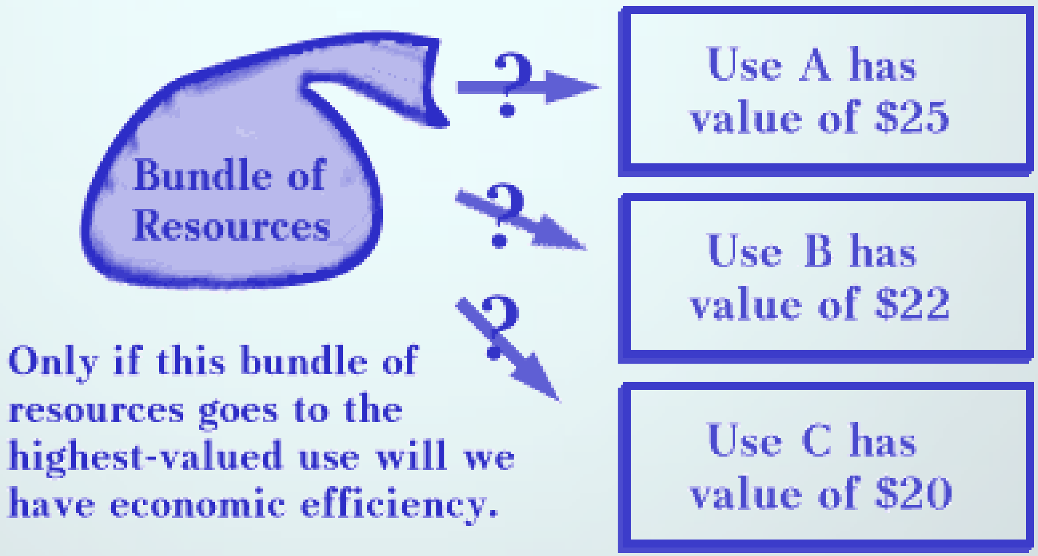
Test Yourself: Externalities

Look at almost any dispute that's being caused by the internet and you can find someone who's upset about some externality not being "fair." And it's always psychological. Rationality gets tossed out the window the second someone thinks that someone else is benefiting too much. Even if you benefit yourself, seeing someone else apparently benefit *more* seems unfair.

Mike Masnick

When does economic efficiency exist?

Economic efficiency exists when marginal benefit equals marginal cost.



What is a third party?

A third party is anyone outside the market transaction who is affected by the product.

What are private benefits and costs?

Private benefits and costs are the benefits and costs to the decision maker, ignoring any benefits and costs to third parties.

What are externalities?

Externalities are those benefits or costs that are not considered by market buyers and sellers.

Pollution from cars is an example of a *negative* externality.

Immunizations, restored historic buildings and research into new technologies are examples of *positive* externalities.

What happens when externalities are present?

Competitive markets are not likely to achieve economic efficiency when externalities are present because externalities are not considered in their decisions.

What are social benefits?

Social benefits is the term used for the sum of benefits to everyone, including both private benefits and external benefits.

What are private costs?

Private costs are the costs assumed by the producer, the production costs of capital, labor, land and entrepreneurship.

What are social costs?

Social costs is the term used for the sum of costs to everyone, including both private costs and external costs.
Although these costs are easy to overlook, that doesn't make them any less real.

When is social welfare maximized?

Social welfare is maximized when *marginal social benefit equals marginal social cost.*

Why can’t businesses solve pollution?

Businesses can't solve pollution because the added costs of cleaning up the environment would make them less competitive in the market place.

Why should a firm minimize costs?

A firm should minimize costs because *only firms that choose the lowest cost method of production will survive* the market.

What happens when external costs are ignored?

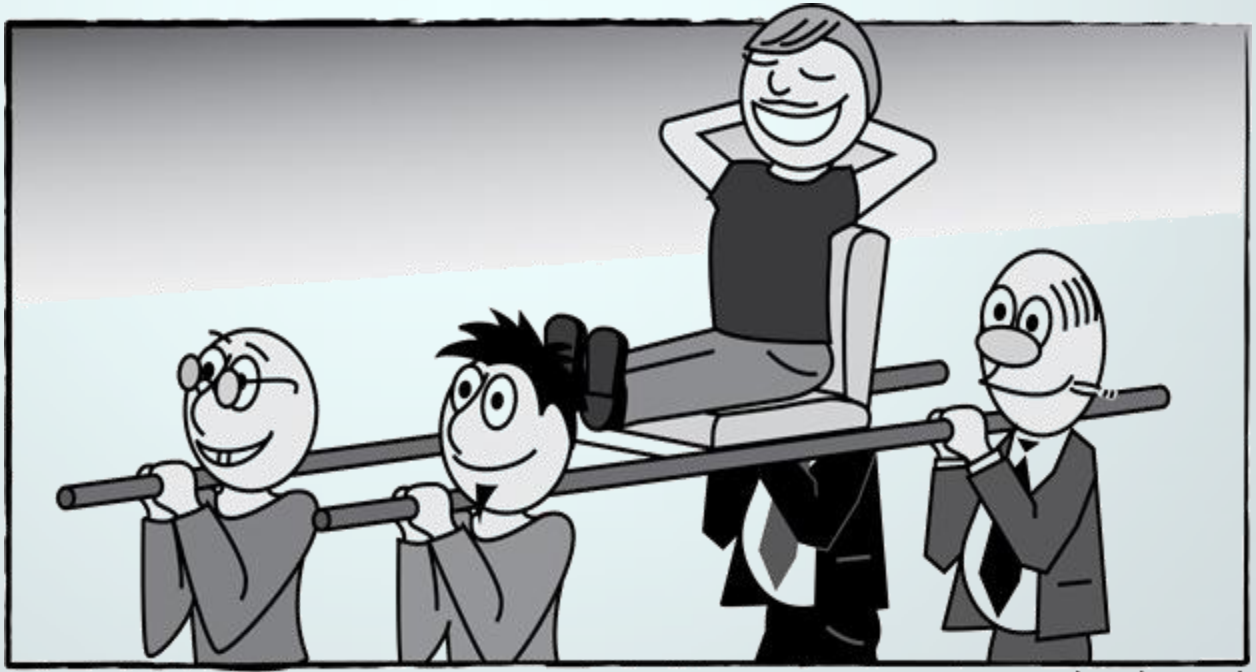
When external costs are ignored, competitive firms produce too much (compared to production under complete social costs), and the market equilibrium price is too low (compared to a socially efficient industry).

What happens when there is no government intervention?

If left to the competitive market (with no government intervention), *profit-maximizing firms would have no reason to reduce emissions*. And, given the competitive nature of the market, they would have every reason *not* to reduce emissions.

What is a free rider?

A free rider is a person who gets the same benefit from the purchase of a good whether or not he/she pays for the good.



Do markets fail when externalities are present?

Yes, markets fail when externalities are present.

Externalities illustrate that private markets fail to produce society's preferred outcome.

How can society achieve efficiency when markets fail?

Government has a potential role when there is market failure.

What is an example of government failure?

Government can fail to correct market failure by doing *too little* or *too much*. And government failure leads to more severe problems than market failure.

What are government approaches to achieving environmental efficiency?

Government can use command-and-control regulations or incentive-based regulations.

What is a command-and-control regulation?

Command-and-control regulations are government regulations that set an environmental *goal* and dictate *how* the goal will be achieved.

What is an example of a command-and-control regulation?

Mandatory installation of catalytic converters on automobiles is an example of a command-and-control regulation.

What is an incentive-based regulation?

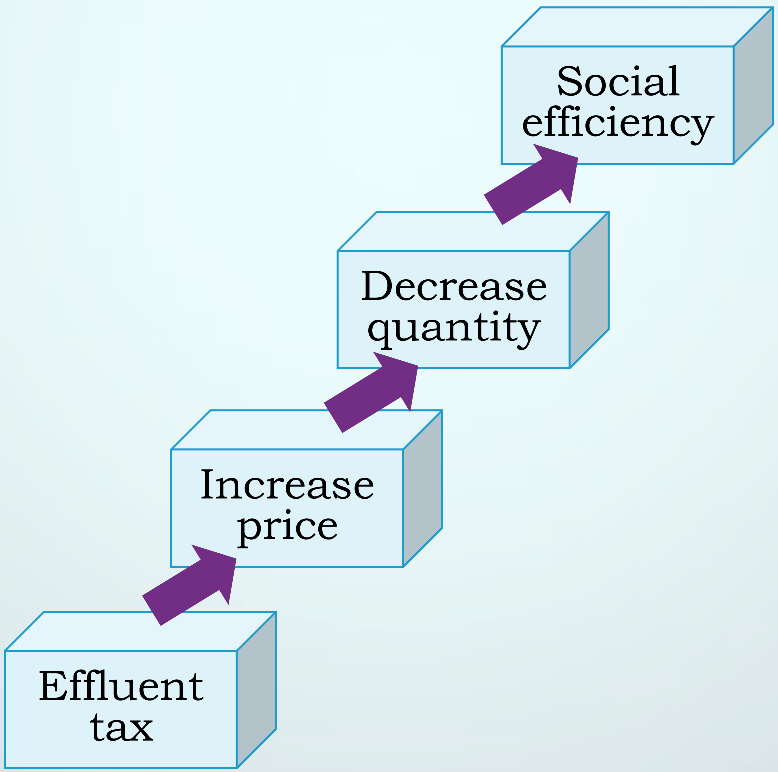
Incentive-based regulations are government regulations that set an environmental *goal*, but are flexible about how buyers and sellers achieve the goal.

Achievement is mandatory but the process buyers and sellers use to achieve the goal is not.

What is an effluent tax?

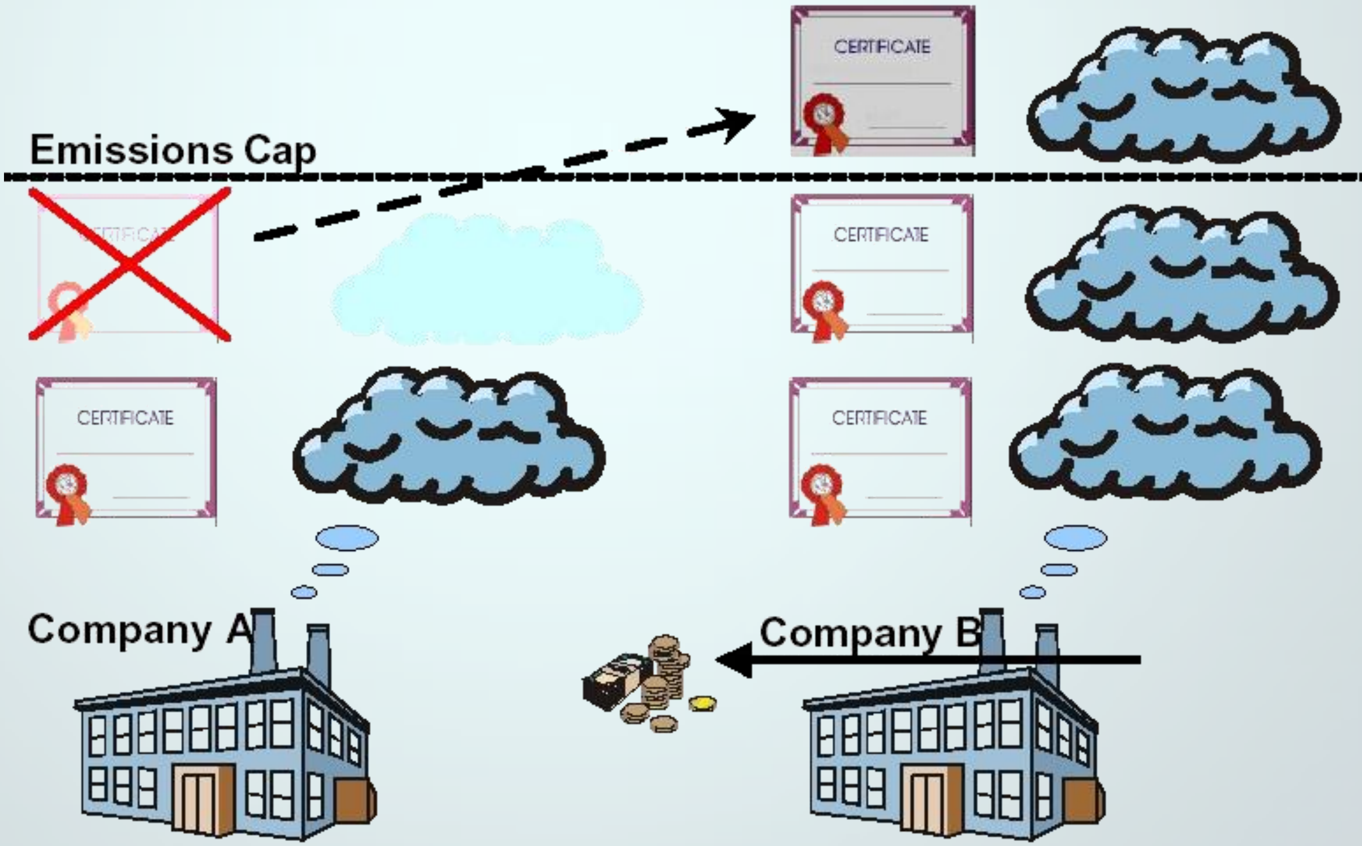
An effluent tax is a tax on a pollutant.

[Don’t confuse *effluent* (discharge) with *affluent* (wealth).]



What is emissions trading?

Emissions trading is trading that allows firms to buy and sell the right to pollute.



What is new-source bias?

New-source bias occurs when there is an incentive to keep assets past the efficient point as a result of regulation.

Is the efficient amount of pollution typically zero?

No, the *marginal social cost* of achieving one more unit of clean air may be greater than the *marginal social benefit*.

Which kind of regulation do economists believe are more efficient, command-and-control or incentive-based?

Economists generally believe that *incentive-based regulations* are more efficient than command-and-control regulations.

What is the Coase Theorem?

The Coase Theorem says that private market *negotiations* can achieve social efficiency, regardless of the initial definition of property rights.

How comprehensive is the Coase Theorem?

Only a *small* number of environmental problems qualify for Coase Theorem solutions.

What kinds of cases qualify for a Coase Theorem solution?

Cases that qualify for the Coase Theorem are characterized by:

- no transaction costs
- no income effects
- only two parties in the negotiation

What is a transaction cost?

A transaction cost is the cost of negotiating and enforcing a contract.

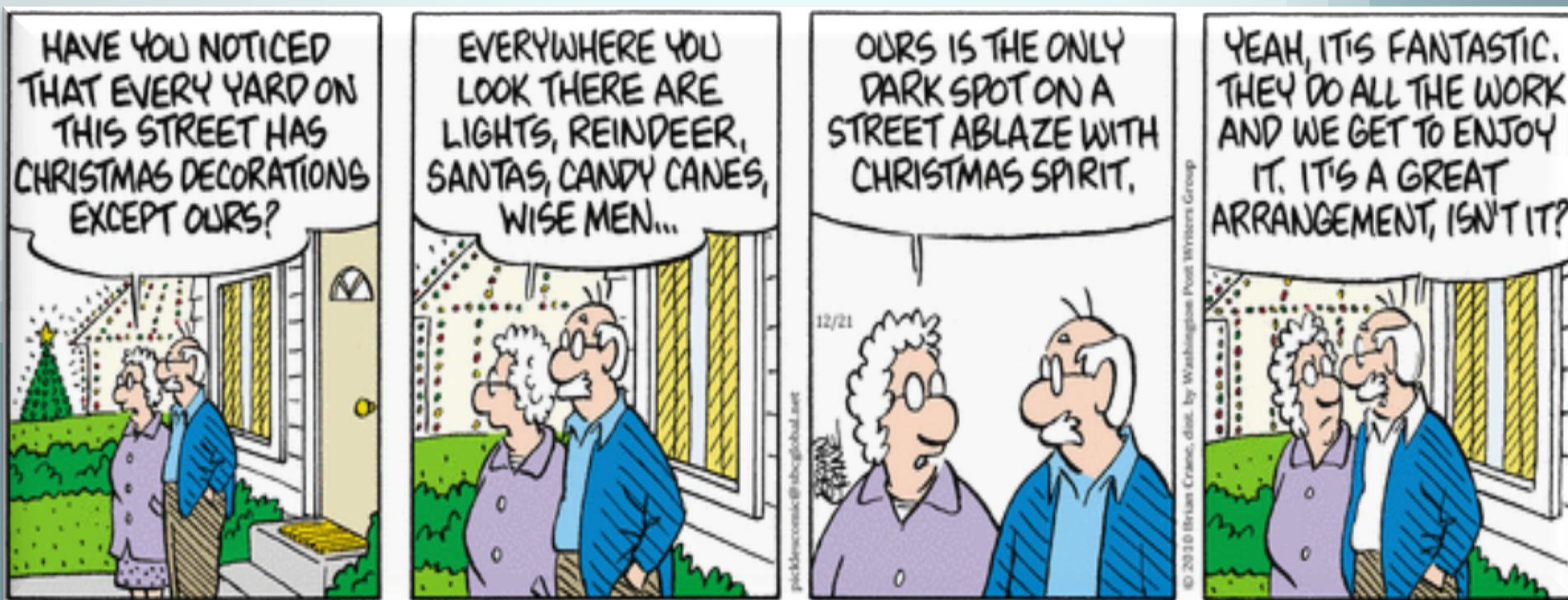
What is the free-rider problem?

If some people benefit (free riders) while others pay, few will be willing to pay for the improvement of the environment or other public goods.

What is the result of the free-rider problem?

If few are willing to pay for the improvement of the environment or other public goods because of free riders, those goods will be *underproduced*.

How did you do?! If you didn't do as well as you'd like, review the margin notes and presentations and test yourself again.



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