Economics 101 – Section 5

Lecture #25 – April 22, 2004

Chapter 15 – Market Failures pp. 453-466
Natural monopolies
Externalities
Public goods

Market failures and public goods

- A market failure occurs whenever a market which exists free of any government or other intervention is inefficient
- Natural Monopolies
  - Recall that natural monopolies exist when there are economies of scale so that ATC keeps going down as more and more is produced
    - Utilities
    - Extreme example –a Evanescence cd
      - MC vs ATC
      - The marginal cost is very small (i.e. $0.50) but the fixed costs may be very large (recording time, promotion, artists time, etc)
  - In the absence of government regulation natural monopolies may make "unfair" profits by charging prices that are too high

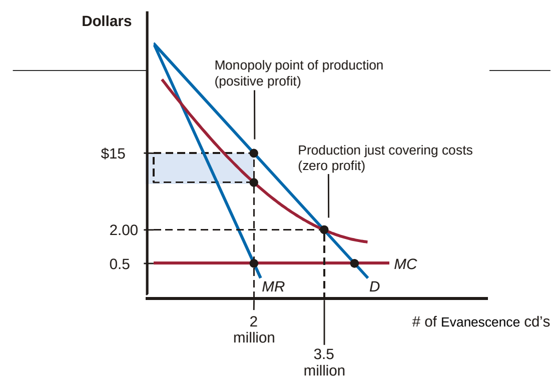
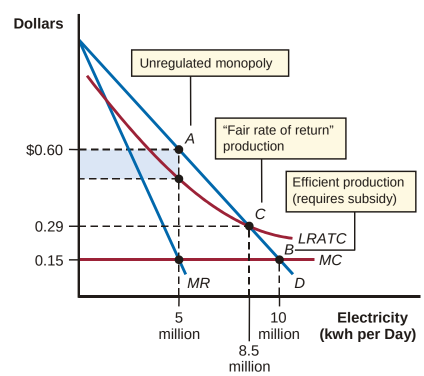


Figure 4 **Regulating a Natural Monopoly**



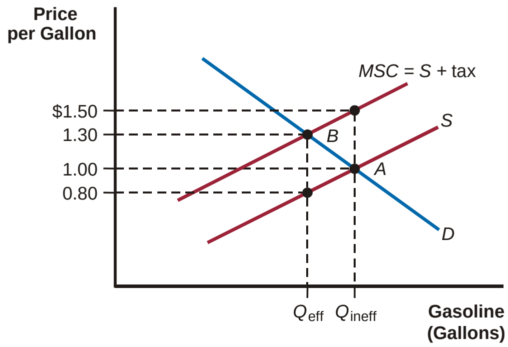
Externalities

- Externalities
  - is a by-product of an action that affects someone who has not taken part explicitly in that action
  - Examples
    - Pollution
    - Innocent bystanders close to riots (tear gas)
    - Disruptive behavior in any class that affects those around you

Externalities

- Negative externalities (such as pollution)
  - A market with a negative externality associated with production or consumption will be inefficient
    - There will be too much consumption of the good
  - In market equilibrium the actual marginal cost (this includes the social cost) exceeds the marginal benefit

Figure 5 A Negative Externality



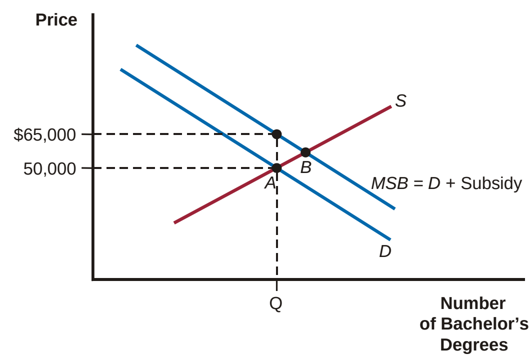
Externalities

- A tax equal to the difference between the marginal social cost and marginal private cost can correct a negative externality and make a market efficient

Externalities

- Positive externalities
- A market with a positive externality from production or consumption of a certain good will also be inefficient
  - Too little will be produced
- In the market equilibrium the marginal benefits to all parties exceeds the marginal cost
- A subsidy equal to the difference between marginal social benefit and marginal private benefit can correct a positive externality and make a market efficient.

Figure 6 A Positive Externality



Public goods

- A public good
  - A good which is both non-rival and non-excludable
    - Ex: national defense, parks, air
- A private good
  - A good that is rival and excludable
    - Car, hamburger, newspaper, chair
  - Rival – when one person consumes a good then no one else can consume that same good at that particular moment in time
    - Hamburger, apartment
  - Non-rival – when many people can enjoy the same good without affecting anyone else's consumption of that same good
    - National defense, Leid rec center

Public goods

- Excludable
  - Can prevent others from enjoying that good if they do not pay for it
    - Leid rec center, country club, car, the subway
- Non-excludable
  - Cannot prevent others from enjoying that good
    - National defense, air, parks

Public goods

- If there is rivalry in consumption then it should be provided by the market
- Free rider
  - Is someone who does not contribute to paying for an excludable good but gets to enjoy the benefits
    - People who don't pay taxes free ride on national defense
    - Visitors from out of town free ride on local parks

Public goods

- The private sector will not provide goods which are non-excludable
  - These must be provided for by the government
  - Examples – Defense, basic research, most parks (the ones without a user fee)
- When a good or service is non-rival, the market cannot provide it efficiently
  - To achieve efficiency the good should be provided free of charge

Public goods

	Excludable	**Non-excludable**
Rival	*Private Good:* -The market will provide The good	*Mixed good* - The market will not provide enough of the good
Non-rival	*Mixed good* - The market will not provide enough of the good	*Public Good* - Market should not provide any of the good

Public goods

- Tragedy of the commons
  - The problem of overuse when a good is rival but non-excludable
    - Overuse of parks
    - Smog in cities – too many people driving or driving too much
    - Congestion on the web – using up too much bandwidth
    - Highways

Public goods

- Note – Just because a government provides a good does not necessarily mean that it is public
  - In the US the gov owns
    - land,
    - some utilities (at least in the past)
  - In other countries
    - Land, banks, media companies, newspapers, large corporations