Chapter 11

Public Goods and Common Resources

- So far, we have looked at the markets for goods and services that are supplied by private firms.
- Now we turn our focus to goods and services supplied by the public sector.
- Consumers do not have to pay for these goods – they are provided for use for free by governments.

- The problem with the market for free goods is that the market forces – price – which normally allocate resources are absent.
- Without prices, the market can't guarantee that the good is produced and consumed in the right amount.

Different Kinds of Goods

- It's useful to group goods and services by two characteristics.
- Excludability: people can be prevented from using the good or service.
- Example: You can't attend a Buffalo Bills home game unless you have a ticket.

- Rivalry: one person's use of the good diminishes the ability of another person to use it.

- Example: I park in a free lot, taking up a space that someone else might have wanted.

- Using these two characteristics, we can divide goods into four categories.

1. Private Goods

- These are both excludable and rival.
- Example: a chocolate bar
- It's excludable: you can't have one if no one will give or sell you one.
- It's rival: if I'm eating one, you can't eat the same one.

2. Public Goods

- These are neither excludable nor rival.
- Example: fireworks displays
- They aren't excludable: you can't keep people from looking up into the sky and enjoying them.
- They aren't rival: one person's enjoyment of the show doesn't take away from someone else's enjoyment.

3. Common Resources

- These are rival but not excludable.
- Example: fish in the ocean
- They are rival: every fish you catch means fewer fish for the next person to catch.
- They are not excludable: the ocean is so big that you can't keep someone from fishing if they really want to fish (they'll find a spot somewhere).

4. Natural Monopoly Goods

- These are excludable but not rival.
- Example: cable TV
- It's excludable: you can't get it if you don't subscribe.
- It's not rival: your enjoyment of a TV show doesn't diminish any other cable subscriber from watching shows they like.

Public Goods: The Free-Rider Problem

- Since people cannot be excluded from enjoying the benefits of a public good, individuals may withhold paying for the good hoping that others will pay for it.
- A free-rider is a person who receives the benefit of a good but avoids paying for it.
- For example, I want to watch a fireworks show. Instead of buying a ticket to enter the park, I sit on the other side of the fence and enjoy the display for free. I'm free-riding.

- A private firm would not likely put on the fireworks show – no one would buy tickets, or probably not enough people would buy tickets to make it profitable.
- In general, firms do not provide public goods because not everyone who consumes the goods will pay for them.
- If a firm did, there would be a positive externality – people enjoying the show but not paying for it.
- The show would be socially desirable but not privately profitable.

- Here's where the local government can get involved.
- Since the show is socially desirable, it can tax each resident an amount not exceeding the value they place on the show and use the revenue to hire someone to put on the display.
- That would eliminate the free-rider problem, and everyone is still better off because they get to enjoy a fireworks show.

- Some important public goods are:

- National Defence: we all benefit from our country's protection, and one person's protection doesn't diminish the protection of another.
- Research: government agencies often sponsor private researchers, knowing that new knowledge, techniques, medical cures, etc. benefit all of society.

- In order to decide whether to provide a public good or not, the total benefits of all those who use the good must be compared to the costs of providing and maintaining the public good.
- This is cost – benefit analysis.
- Essentially, if the benefits outweigh the costs, the good should be provided.
- In practice, this may be difficult.

- For free public goods, the absence of prices needed to estimate social benefits and resource costs makes it difficult.
- Without prices, you can't accurately estimate the value society places on the good.
- Moreover, how do you value someone's life when deciding whether to install a traffic light, or the beauty of a new botanical park?

Common Resources

- We share and enjoy common resources with others all the time.
- For example, clean air and water, roads and highways, wildlife and so forth.
- However, our enjoyment of and possible overuse or misuse of these resources can diminish others' ability to enjoy them.

The Externality of a Cow

- Suppose that a long time ago there was a common ground for free use by farmers to bring their cows for grazing.
- Every additional cow a farmer brings clears more grass that could have been enjoyed by another farmer's cow.
- Each cow confers a negative externality – less grass for other cows to eat.

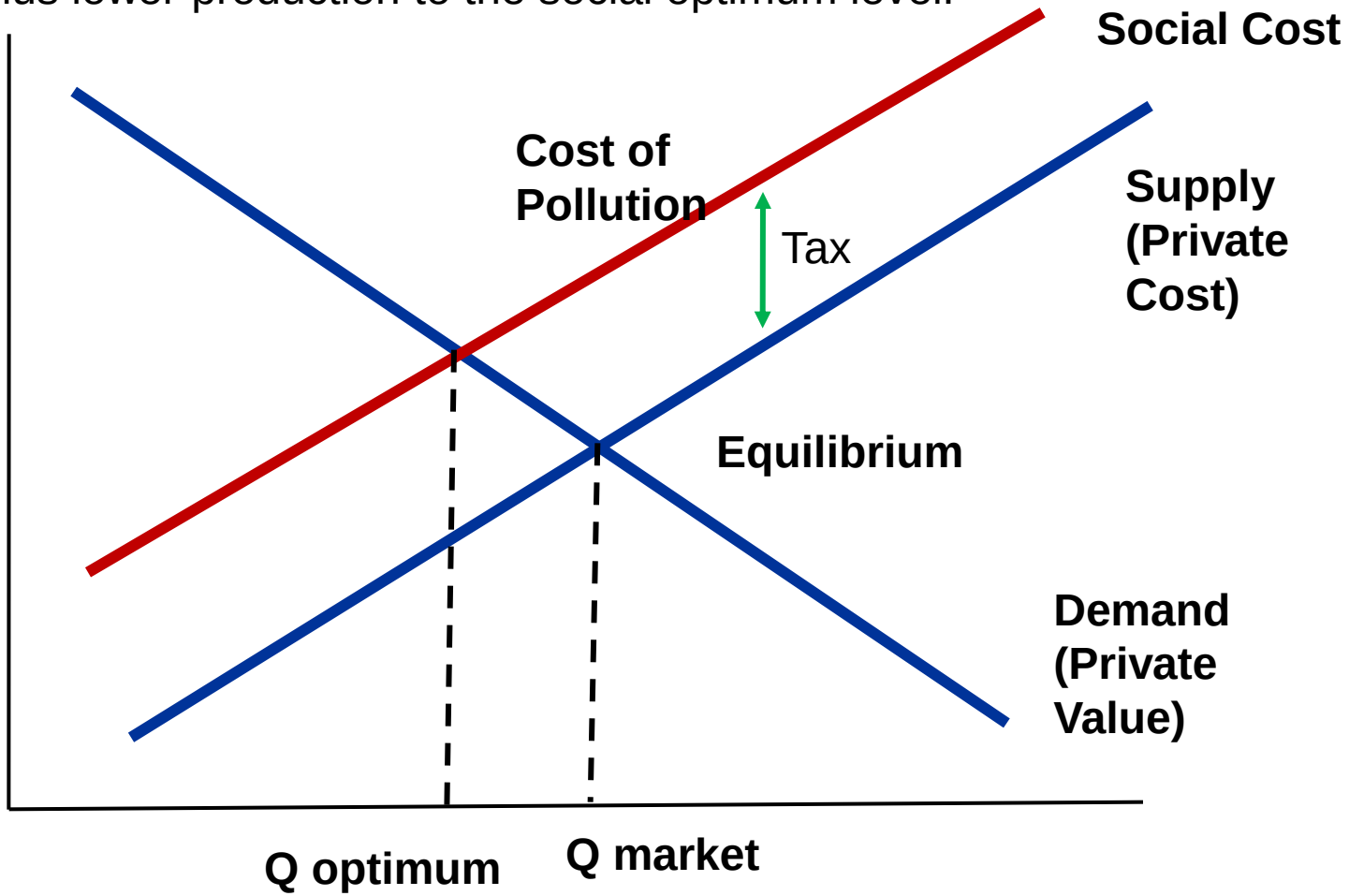
- If there eventually are so many cows that the grass literally becomes all eaten up, the common pasture is gone.
- The farmers lose out and many lose their livelihoods altogther.
- This is often called the tragedy of the commons.
- Individual farmers neglect the effect of their cows on other farmers (the rest of society).

- The governing locals could have prevented the destruction of the pasture in numerous ways.
- They could have set limits on the number of cows each farmer could have.
- They could have assigned a certain amount of land to each farmer, in effect creating private property for each farmer to maintain or neglect at their whim.

- Governments today try to avoid the tragedy of the commons.
- One example is toll roads.
- Toll roads prevent overuse and congestion by charging drivers who are willing to pay for the benefit of less traffic (thus excluding drivers who do not pay and would potentially free-ride).

- Another control is a Pigovian tax on polluters.
- Recall that the social cost of producing and supplying some goods is higher than the private cost if pollution is a negative externality.
- If governments didn't try to regulate and/or tax polluters with the aim of reducing emissions, there would be a deadweight loss of welfare to society.

The social cost is higher than the private cost due to pollution. The government could tax the firms an amount that would increase its costs to equal the social cost and thus lower production to the social optimum level.



Property Rights

- Recall from Chapter 10:
- The market fails to allocate resources efficiently when property rights are not well-established.
- That is, when some item of value does not have an owner with the legal authority to control it.
- The government can potentially solve the problem of market failure, by regulating private behaviour or supplying goods the market won't provide.

For example,

- Laws control the duration of hunting seasons and hunters and fishers require licences (provides against the overuse of common wildlife resources).
- Regulations and Pigovian taxes aim to curb pollution.
- The federal government provides national defence, local governments provide police and fire departments – private firms would not find it profitable to do so.