

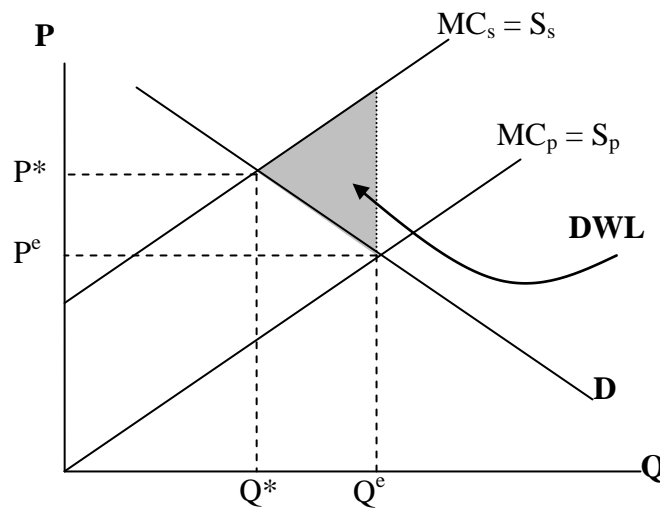
## LECTURE 31: EXTERNALITIES & MARKET FAILURE

- I. Market failure
  - a. Sometimes people think of market failure as when “the market fails to generate the result I want.”
    - i. Of course, such sloppy understanding is usually not so obvious. When people are so wrong, they tend to be more subtle about it. For example, they would call the existence of poor people or the sensationalism of the news a market failure.
  - b. A *market failure* actually is when private decision-making fails to achieve an efficient allocation of scarce resources
- II. Externalities
  - a. An *externality* is a cost or benefit imposed on those who did not play a role in the decision making.
  - b. A *positive externality* is a benefit imposed on others. Examples are people with good fashion sense, beautiful buildings, crop pollination from the bees on a honey farm, and some gains from technology.
    - i. Look back to the definition of externality: the word “imposed” is very important. It means that acts of charity are not positive externalities.
    - ii. Remember, an externality must be *external* to the participants of the transaction. That’s why it creates inefficiency: how much is produced considers only some of the benefits of the good or service.
    - iii. Our front yard has a lot of flowers; it’s a pain to maintain (in fact, I don’t maintain it enough) but we like it so we don’t convert it to grass. People like our flowers; if my wife and I fully cared about their enjoyment, their joy would be incorporated into our decisions on how much to work on it to make it look nice. But we don’t care that much about strangers’ opinion (thus our yard looks a bit unkempt) and there’s a positive externality when the flowers bloom.
    - iv. In contrast, Montgomery College cares a great deal what everyone thinks about its grounds. There’s no positive externality to the flowers on campus; your joy is something the college considered when determining how many to plant and how well it’s maintained.

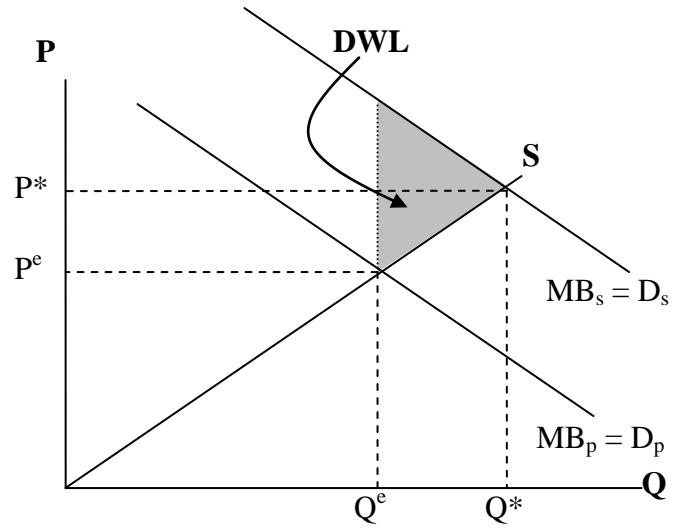
- c. A *negative externality* is a cost imposed on others. Examples include people with bad fashion sense, ugly buildings, crying babies, and pollution.
- d. Because of how benefits and costs are distributed, activities with positive externalities are underused and those with negative externalities are overused, each creating deadweight loss.
- e. Is eliminating a negative externality a positive externality?
  - i. **No.** It's important to remember there are three categories of activity, not two: positive externality, negative externality, and nothing at all. If someone stops creating a negative externality, that returns us to "nothing at all." It would be like thanking someone because they stopped killing people.
  - ii. Consider transportation. Imagine you want to run an errand. Driving clearly has a negative externality. Does that mean biking instead has a positive externality?
  - iii. **Again, no.** Biking would be no different than walking or even not running the errand at all. Since inaction can never be a positive externality, biking shouldn't either. Biking doesn't make the environment better: it just doesn't make it worse.

### III. Formalization

- a. For externalized costs,



- i. Because we *are* producing when  $MB < MC$ .
- b. And for externalized benefits,



- i. Because we *are not* producing when  $MB > MC$ .