



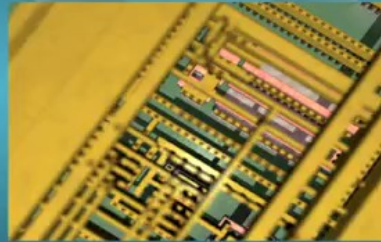
LECTURE TWELVE - PART FIVE

Negative and Positive Externalities

- The production or consumption of a good may generate “**spillover effects**.”
- **Key Point:** External benefits or costs are not accurately reflected in the supply and demand curves of producers and consumers.
- As a result of **externalities**, the free market may be inefficient and under-supply or over-supply the good.

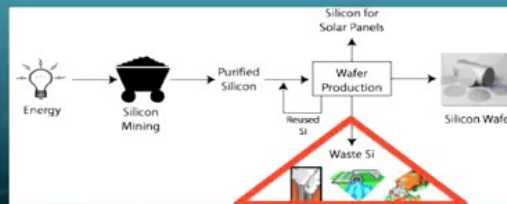
A Silicon Valley Chip Example

- To make chips, your company must pay workers, invest in new plant and equipment, and buy raw materials.
- Each of these costs will be reflected in your private marginal cost curve which, you may recall, is also your firm's supply curve.



Toxic Wastes R Us

- In a free market and in the absence of any laws to the contrary, your company may simply dump these toxic wastes into a nearby river to minimize its costs.
- Nonetheless, the resulting pollution will not be without cost to the broader society.



Why It Is A Negative Externality

- Children may get leukemia
- Fishermen catch less fish
- Homeowners get sick



Why It Is A Negative Externality

- These types of external or spillover effects are called **negative externalities**.
- Because they will not be borne by your firm in a free market, they are **not** reflected in your supply curve.
- The likely result: Your firm will produce both too many computer chips and **too much pollution** from society's point of view!

Positive Externalities


- Arise when all of the benefits of consuming a good do not accrue to the individual consumer.
- By getting a flu shot, Holmes not only protects himself from getting the flu.
- He also helps protect the broader London population from catching the flu from him.



The Problem of Underconsumption

- When we magnify Holmes' behavior to the entire population, vaccinations mean a healthier and more productive workforce, a larger national output, and higher incomes for society.
- **The Problem:** The free market tends to lead to the **underconsumption** of goods that yield positive externalities – from vaccinations to education.

The Broader Point



- **Externalities:** A strong economic rationale for federal, state, and local intervention into the free market.
- **Examples:** Environmental protection, traffic congestion, education and public health.
- Accordingly, it is appropriate that we take a more systematic theoretical look now at this very important **market failure**.