



LECTURE TWELVE - PART TWO

Public Goods

- Each year, the United States government spends billions on one public good alone, national defense.
- Billions more are spent on other public goods ranging from parks, roads, and bridges to our criminal justice system, flood control programs, and even our lighthouses on the high seas.



The Nature of Public Goods

- So why is it that the government rather than the private marketplace has to provide for all these public goods?
- The answer lies in understanding the nature of the public goods market failure.
- To start towards that answer, let's first contrast private versus public goods.

Private Goods

- Private goods are **divisible**.
 - They come in small enough units to be afforded by individual buyers.
- A private good is **rival in consumption**.
 - If I consume the good, you can't.
- A private good is subject to the **exclusion principle**.
 - Those unable or unwilling to pay can be excluded from the product's benefits.

Public Goods

- Public goods are **indivisible**.
 - They come in such large units that individual buyers cannot afford them.
- Public goods are also **non-rival in consumption**.
 - Both you and I can consume a public good without interfering with the other's enjoyment.



Non-Excludability!

- Exclusion from the consumption of a public good is difficult or impossible.
- **Non-excludability** makes it very difficult for the private marketplace to supply the good.



Let's Be More Specific

- Suppose you are holding a hot dog in your hand.
- I tell you that I'm really hungry and want your hot dog!
- But you're hungry, too, so that if I eat that hot dog, you can't.
- That hot dog is **rival in consumption**.



Compare This To National Defense

- Here you are standing on American soil protected by an Army, a Navy, an Air Force, and a deadly array of nuclear missiles.
- But guess what: I am protected as well.
- My protection by this defense umbrella does not interfere with your protection!



In Other Words

- The defense umbrella is **non-rival in consumption**.
- Public goods like national defense are **indivisible** and too large to be purchased by one individual.

Non-Excludability



- Here's the problem we face when we try to rely on the free market to provide public goods like national defense.
- **Nobody wants to pay for public goods!**
- The reason has to do with the third characteristic of a public good: **non-excludability**.

The Free Rider Problem

- A producer cannot exclude non-payers from receiving its indivisible benefits.
- This creates a **perverse incentive** among potential buyers to want to **free ride**.
 - Potential buyers don't want to pay for a good they can get free.
- Nor will they want to reveal their true **preferences** as to how much they would be **willing to pay** for it prior to its provision for fear of being taxed that amount.

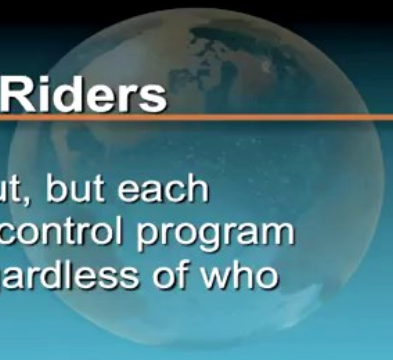
Where's The Demand Curve?

- The market demand curve for a public good is either non-existent or significantly understated.
- The perceived demand for the public good doesn't generate enough revenue to cover the costs of production.
- This is so even though the collective benefits of the public good may exceed the economic costs!

Flood Control and Free Riders



Flood Control and Free Riders



- No one wants to be flooded out, but each landowner knows that a flood control program will protect all landowners, regardless of who pays.
- Individual farmers and landowners may say they don't really want a dam and aren't willing to pay for it BUT what they are really doing is waiting for someone else to pay for the flood control.

Key Point

If we leave this project to market forces, all the property in the valley will be washed away.

The Punchline

- The economic difference between public goods and private goods rests on technical considerations -- not political philosophy.
- Do we have the technical capability to exclude non-payers from non-rival goods like national defense or flood control?
- Is exclusion economically feasible?



City Streets: Exclusion Not Feasible

- In theory, we could restrict the use of city streets to only those who pay to use them.
- We could put a gate on every corner; but that would be exceedingly expensive and impractical.
- So city streets have the characteristics of a public good.

Other Public Goods

- Administration of justice
- Regulation of commerce
- Conduct of foreign relations
- The provision of certain types of goods such as lighthouses, bridges, and roads.

