

Chapter 4: Market Failure- Public and Private Goods

Review: **SURPLUS is created** whenever we create something with benefits that are greater than the costs.



SURPLUS is maximized when we take advantage of every opportunity where $MB > MC$, but never when $MC > MB$

A market is anywhere people buy and sell goods or services. Markets are usually a good way for people to buy and sell things, such as carrots, pizzas, laundry services, and painting services. These kinds of things are called **“Private Goods”**, because they have two characteristics in common:

- 1) They are **EXCLUDABLE**: If someone doesn't pay, they don't get the good or service.
- 2) They are **RIVAL (or rivalrous)**: If more people try to use the good or service, we either need more, or each person will get less (or less quality)

There are cases where the free market, demanders and suppliers, are **VERY** unlikely to be able to buy and sell a product or service. **PUBLIC GOODS** are goods that have the opposite characteristics of private goods:

- 1) **NONEXCLUDABLE**: Impossible to keep people from getting the benefits from the good or service if they don't pay.
- 2) **NONRIVAL (nonrivalrous)**: which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtractions from any other individual's consumption of that good...

Public Goods are not “things produced by the government”. They are things that could **ONLY** be produced by the government, in large part because of the **NONEXCLUDABLE** characteristic.

Maybe the best example of a public good is national defense. Imagine you lived in a country with no army, and you thought about starting a private business to provide national defense. You train an army, build some walls, and then send your salesmen around to sell your product.

“Hello Ms. Jones, I am here selling National Defense. We provide safety and security ...”

- 1) What if Ms. Jones decides not to pay? **NONEXCLUDABLE**
- 2) Do you need to provide **more defense**, or **does the quality of the defense go down** if the size of the population increases? **NONRIVAL**

You are going to go out of business. However, the government can do this, by taxing and providing national defense.

To recap- Something is ONLY a public good if it is BOTH Nonrivalrous and Nonexcludable.

A “Pure” private good is both Rivalrous and excludable.

Private: Pizzas, Oranges, Electricity (You need more for more people to use, can exclude)

Public: National Defense (The amount you need doesn't depend on the population size, can't exclude people)

Quiz for understanding!!	Rivalrous?	Excludable?
Roads and Bridges	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Fireworks display	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Fish in the ocean	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
MP3 of your favorite song	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Fire protection	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Lighthouses	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Healthcare	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Schools	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Satellite TV	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

PS: If Rivalrous and Nonexcludable we call it a “common pool resource”, if Excludable but Nonrivalrous a “Club good”

Total Demand for Private Goods versus Public Goods

	Lagertha	Bjorn	Flóki
Price (WTP)	Quantity	Quantity	Quantity
\$10	0	1	0
\$9	0	2	1
\$8	0	3	2
\$7	0	4	3
\$6	1	5	4
\$5	2	6	5
\$4	3	7	6
\$3	4	8	7
\$2	5	9	8
\$1	6	10	9
\$0	7	12	10

Total Demand For Lamb-Burgers

Price	Quantity Demanded
\$10	
\$9	
\$8	
\$7	
\$6	
\$5	
\$4	
\$3	
\$2	
\$1	
\$0	

Total Demand for Fireworks

Price (Most WTP as a Group)	Quantity Demanded
	1
	2
	3
	4
	5
	6
	7
	8
	9
	10
	11

