

Notes from Discussion Chapter 11

“When Markets fails”

- Property Rights
 - o Externalities
 - o Rivalry/ Excludability

Market Efficiency \Leftrightarrow Maximize Social Surplus \Leftrightarrow Produce until Social Benefit = Social Cost

Market Forces \Leftrightarrow Private Cost (S) = Private Benefit (D)

Definitions:

Rival- Does my consumption of good reduce your ability to consume?

Excludable- Can someone be prevented from consuming the good who doesn't buy it?

- Private goods R+ Ex
- Common resources R+ Non Ex
 - o Non-excludable because no one owns common resources (Grazing land, fish in a river...)
- Public Goods NR + Non Ex
 - o Fireworks Display, Tornado Siren, National Defense

Common Resources:

There is no real market for this

Since it is rival, there is an issue

- I am a fisherman
 - o I have private costs which include equipment, time
 - o But I also have private benefits such as feeding my family and showing off my catch
 - o What is the Negative Externality?
 - Social Cost
 - Reducing fish population
 - Hurting others' chances of catching fish
 - o Social cost to fishing is greater than a Private cost

$Q^M > Q^E$

Overconsume or overproduce?

Tragedy of the Commons

Public Goods:

Due to non-excludability, people who value the good can still consume it without paying (free riders)

They are just responding to incentives

- Market for fireworks
 - o Costs \$50 and are valued at 10
 - o If I sell tickets, no one is going to buy them because “I can simply watch them from my backyard.”
- Private willingness to pay is less than Social willingness to pay (Free riders)

Good under produced and it might not even be produced at all- it costs more than it means to anyone

Exercises

5. Roommates in the same dorm

Willingness to pay (\$)

	Judd	Joel	Gus	Tim	Total Willingness to Pay	Cost
1st Film	7	5	3	2	17	8
2nd	6	4	2	1	13	8
3rd	5	3	1	0	9	8
4th	4	2	0	0	6	8
5th	3	1	0	0	4	8

- a) Movie is a **Public Good** so it is non-rival (We can all enjoy it. If you are watching it, I can watch it too) and non- excludable (People cant be excluded because we are all roommates)
- b) Cost = \$8/ movie
 - a. How many movies to **maximize total surplus**?
 - i. Keep buying as long as total is greater than or equal to the cost (Social value)
 - ii. According to the chart we made above, rent 3 movies to maximize surplus
- c) Split costs equally- Each costs \$2/ roommate
 - a. How much surplus to each roommate from renting an efficient number?

	Willingness to Pay	Cost/ Movie *# Movies	Surplus
Judd	18	6	12
Joel	12	6	6
Gus	6	6	0

Tim	3	6	-3
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- d) How do you split costs so everyone profits?
- a. Tim is getting screwed
 - b. Make those who value it more (How high is their willingness to pay) pay more
 - c. What practical problems does this solution raise?
 - i. People with high valuation have incentive to lie (downplay their willingness to pay)
- e) Pay equally, rent efficient number (maximizes total surplus)
- a. Does Judd have the incentive to lie about his valuation?
 - i. (Cost/ movie)/ roommate = \$2
 - ii. Judd values 4th and 5th movie > \$2
 - iii. Wants to lie and say that his willingness to pay is higher
- f) In order for the amount of public goods to be optimally provided, people must have no incentives to lie about valuation. (Incentive Compatible)

10.

Fed. Government test tests the safety of car models and provides the test results free of charge to the public. Do you think this information qualifies as a public good? Why?

- Information at it's nature is not rival
- Excludability is kind of hazy but if the Gov. is making this information readily available, it is non-excludable.
- Non rival and non excludable so it is a public good