ECNS 204

Principles of Microeconomics

Chapter 4 (Exchange and Supply) – Silberberg and Ellis

Dr. Mark Anderson

Gains from Exchange

- Voluntary exchange is based on mutual benefits
- The source of mutual benefits from exchange is the difference in the marginal evaluations of a good by different people
  - Anytime one person values an additional unit of a good more highly than does another person, mutually advantageous trade can take place.
- Oyster problem: https://montana.techsmithrelay.com/oOCr

Supply Curves

- Here we focus on the seller's decision and ask the question, how many units is a person willing to give up at certain prices?
- Supply is connected with the costs of production
  - Which we will cover more in depth later
  - For now, let's go back to our oyster example…

Mkt Price	Person B's quantity demanded	Person B's supply schedule (initial stock = 11)
$10	1	10
9	2	9
8	3	8
7	4	7
6	5	6
5	6	5
4	7	4
3	8	3
2	9	2
1	10	1
0	11	0

- In the absence of production, the supply of a good at specified prices is the amount some person who currently owns the good is willing to give up, at those prices.
- In an economy consisting only of persons engaging in trade (as opposed to production also), the resulting supply curve is the total amount of the good currently in existence minus the quantity demanded by the present owners.
- The table above, displays person B's MV (demand) schedule along with the amount she is willing to sell at prices b/w $0 and $10.

Mkt Price	Person B's quantity demanded	Person B's supply schedule (initial stock = 11)
$10	1	10
9	2	9
8	3	8
7	4	7
6	5	6
5	6	5
4	7	4
3	8	3
2	9	2
1	10	1
0	11	0

- For instance, at P=$3, she consumes 8 and offers 3 for sale.
- If P goes up, she is willing to give up more oysters.
- Let's think about this graphically: https://montana.techsmithrelay.com/NFri

Economic Efficiency

- Bringing the supply and demand curves together…

Showing this graphically: https://montana.techsmithrelay.com/Xjob

- As we show in the video, the process of trade occurs until

max WTP (for consumer) = min WTA (for seller)

or

$$MV_{consumer} = MV_{seller}$$

- At this point, the economy achieves a point that is referred to as "Pareto efficient"
  - Here, mutual gains from trade have been exhausted

Economic Efficiency

- In reality, it is often the case that buyer and seller are not able to get together and reach a Pareto optimal point of exchange.
- When this happens, room arises for middlemen to decrease the cost of transacting…both the buyer and seller are WTP some positive amount to reduce transaction costs and make a trade…middlemen help to solve this.
- What are some examples?
  - Ebay (brings buyers and sellers together who would have never met otherwise)
  - Banks (brings buyers and lenders together
  - Can you think of some other examples?

Practice problem (Ch. 4, #2 from 6th edition of Silberberg and Ellis)

- a.) Suppose an individual has the following MV schedule for hamburgers and has an initial endowment of 7 hamburgers. What is this person's supply schedule of hamburgers?

Q_D	MV	Q_S
1	$7	6
2	6	5
3	5	4
4	4	3
5	3	2
6	2	1
7	1	0

The answer is shown in red in the third column. Think about the intuition here…If the person has 7 hamburgers, given their MV schedule, we know they are willing to relinquish that first hamburger for a price of $2. Hence, the quantity they supply is 1 hamburger when the price is $2. Now, if they have 6 hamburgers, they will be willing to relinquish another hamburger if the price rises to $3. Hence, the quantity they supply is 2 hamburgers when the price is $3. So on and so forth…

Practice problem (Ch. 4, #2 from 6th edition of Silberberg and Ellis)

- b.) How does the person's supply schedule change if that person is endowed with only 5 hamburgers? The answer is shown in red below…convince yourself that these numbers are correct.

Q_D	MV	Q_S
1	$7	4
2	6	3
3	5	2
4	4	1
5	3	0
6	2	
7	1	

Next, try graphing the supply schedules from parts a.) and b.) of this problem. Notice what changes...the slope stays the same, but the vertical axis intercept differs between the two supply schedules.