lmarran @wisc.edu

Module 2: Demand

Demand Schedule

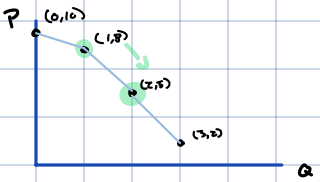
- Asks: How much of good x would I buy at price p?

ex lets think of the demand schedule for smoothies

quantity of smoothies → Q_S	P
3	2
2	5
1	8
0	10

- read as I would buy 3 smoothies if each cost $2.

graphically:



Law of Demand:

- As p increases, quantity demanded Q_D decreases ($P\uparrow \Rightarrow Q_D\downarrow$)
- As p decreases, quantity demanded Q_D increases ($P\downarrow \Rightarrow Q_D\uparrow$)

Movement vs. Shifts of Demand

- Movement: A movement along the demand curve, also called a change in quantity demanded, comes from a change in the price of the good. This is represented by a movement along the existing demand curve (ie, when smoothies go from $8 to $5)

ex Price of smoothies change from $8 → $5

- Shift: A shift of the demand curve occurs when one of the following occurs:
  1. change in income
  2. change in preferences
  3. change in price of related goods
  4. expectations of future
  5. congestion & network effects
  6. changes in type or numbers of buyers

ex Income increases
- ↳ Demand shifts out for lattes
- ↳ Demand shifts in for instant coffee

Demand & Inverse Demand

- recall our linear equation: $y = mx + b$
- Demand Function: the demand function has Q_D on the left hand side & price on the right hand side

$$Q_D = b - mP$$

- Inverse Demand Function: the inv. D function has price on the LHS & Q_D on the RHS.

$$P = b' - m' Q_D$$

- we can solve for the Inv. D function given the D function

Ex $Q_D = 10 - 2P$ using algebra: $Q_D = 10 - 2P$

$2P = 10 - Q_D$

$P = 5 - \frac{1}{2}Q_D$

- When we shift our Demand curve, it will change our inv. Demand curve too

Ex let D shift out by 5 units

(1) add to D: $Q_D = 10 - 2P + 5$

(2) solve for inverse:

$Q_D = 10 - 2P + 5$

$Q_D = 15 - 2P$

$2P = 15 - Q_D$

$P = 7.5 - \frac{1}{2}Q_D$