ECONOMIC NOTES

WEEK 2: DEMAND AND SUPPLY

Markets as discovery processes

- "Things" have no value on their own, they can only be valued by an economic agent – i.e a person
- People's subjective *valuations* are only discovered when they actually carry out an exchange
- People exchange when they have reversed value scales
- Entrepreneurs attempt to discover what other people value and expend their resources to create it.

On the notion of 'Needs'

- High school economics classifies 'wants' and 'needs'
- This is usually polemic (an opinion)
- E.g. I need a Ferrari
- What is the relationship between 'trade-offs' and 'needs'?
- Higher prices (sacrifices) lead people to seek ***substitutes***
- The fact that goods and services are scarce entails ***trade-offs …*** the sacrifice of other goods and services we value

All scarce goods must be rationed somehow

- rationing is usually done by willingness to pay prices
- other ways to ration:
  - 'first come, first served'
  - lottery
  - equal shares for all
  - 'might makes right'
  - merit (or discrimination?)

The demand curve

- in a world of scarcity, individuals incur trade-offs
- thus, economists developed the idea of **demand**
- demand analysis employs data on price and the quantity the consumer is (or predicts they may be) willing to purchase at each price
- as the opportunity cost of an action increases, the chooser will tend to undertake *less* of that action
- as the opportunity cost of an action decreases, the user will tend to undertake *more* of that action
- At higher prices you will less inclined to buy something (but more motivated to sell it)
- At lower prices you will be more inclined to buy the thing (but less motivated to sell it)
- Example of a demand curve is Katherine's demand schedule

Price of an ice-cream	***Quantity of ice-creams demanded***
$0.00	12
$0.50	10
$1.00	8
$1.50	6
$2.00	4
$2.50	2
$3.00	0

The demand curve

- using the data, we can draw a chart where
    - the *vertical axis* shows possible prices that might be charged
    - the *horizontal axis* shows quantity purchased at those prices
- economists call that a **demand curve**

Market demand versus individual demand

- Market demand refers to the sum of all individual demands for a particular good or service (assuming these can be known).
- Graphically, individual demand curves are summed horizontally to obtain the market demand curve.

The law of demand

- the **law of demand** states that an inverse relationship exists between the amount of anything that people want to purchase and the price they must pay
- as price goes up, quantity demanded goes down

Demand and quantity demanded

- a 'change in demand' is *not* the same thing as a 'change in quantity demanded'
- **change in quantity demanded** is a movement from one point on a demand curve to another point on the same curve due to price
- **change in demand** is a shift in the entire curve itself and results from some *non-price* factor that makes buyers buy more or less at every price

Movements along the demand curve

Change in *quantity demanded*

- Movement 'along' the demand curve.
- Caused by a change in the price of the product.

Shifts in the demand curve

Change in demand

- A **shift** in the demand curve, either to the left or right.
- Caused by any change that alters the quantity demanded **at every price**.

Shifts in the demand curve

Consumer income

- As income increases, the demand for a normal good will *increase*.
- As income increases, the demand for a superior good will *increase*.
- As income increases, the demand for an inferior good will *decrease*

Prices of related goods

- When an increase in the price of one good increases the demand for another good, the two goods are called *substitutes*.
- When an increase in the price of one good decreases the demand for another good, the two goods are called *complements*.

Expectations of future price

- When people think a price will rise in the future, they will purchase more of it now
- When people think a price will fall in the future, they will purchase less of it now

Misperceptions caused by inflation

- **Inflation** is an increase in the average money price of goods
- if the money prices of all goods (including labor) increase equally, then no good (except money) will have changed in real price

Price elasticity of demand

- **Price elasticity of demand** measures consumer responsiveness to price changes**:**

- if quantity demanded changes very little as a result of a large change in price, demand is *inelastic*
- if quantity demanded changes substantially as a result of a small change in price, demand is *elastic*

➢ Elasticity equals the percentage change in the quantity demanded *divided by* the percentage change in price.

➢ example: price increases by 20% and quantity demanded falls by 50%
→ consumers are relatively responsive
→ demand is elastic

➢ example: price decreases by 20% and quantity demanded rises by 15%
→ consumers are relatively *un*responsive
→ demand is *in*elastic

$$\text{Price elasticity of demand} = \frac{\%\ \text{change in Q}}{\%\ \text{change in P}}$$

Computing the price elasticity of demand

$$\frac{\dfrac{\text{New } Q_d - \text{Old } Q_d}{\text{Old } Q_d}}{\dfrac{\text{New } P_d - \text{Old } P_d}{\text{Old } P_d}}$$

- Ice Cream example:
  Price increases from $2.00 to $2.20
  Demand falls from 10 to 8

elasticity of demand is

$$\frac{\dfrac{\text{New } Q_d - \text{Old } Q_d}{\text{Old } Q_d}}{\dfrac{\text{New } P_d - \text{Old } P_d}{\text{Old } P_d}} = \frac{\dfrac{(8-10)}{10}}{\dfrac{(2.20-2.00)}{2.00}} = \frac{-0.2}{0.1} = -2$$

Price elasticity of demand

➢ elastic demand
→ price elasticity > 1

➢ inelastic demand