Consumer demand

Price elasticity

Arc elasticity Measures changes between 2 points = e.g. change of 5 % leads to...

$$\frac{(Q_2 - Q_1)}{(P_2 - P_1)} \times \frac{(P_2 + P_1)}{(Q_2 + Q_1)}$$

Point elasticity = If distance between 2 points is negligible then formula is:

$$\frac{(Q_2 - Q_1)}{(P_2 - P_1)} \times \frac{P_1}{Q_1}$$

Coefficient of elasticity = Percentage change in quantity demanded / Percentage change in the relevant variable

Cross-price elasticity

in case of substitutes = positive as other goods are demanded more

in case of complementaries = negative as less well be demanded

Percentage change in demand of A / Percentage change in price of B

Income elasticity

normally positive as increase in income leads to more demand

Percentage change in demand / Percentage change in real income

How much does demand change if price changes? --> Price elasticity, Cross-Price elasticity, Income elasticity

Price elasticity of demand = 0-1 = **Price inelastic** --> change of 10 % in price leads to less than 10% demand increase

Price elasticity of demand = >1 = **Price elastic** --> change of 10% in price leads to more than 10% increase in demand

Price elasticity of demand = 1 = **Unit elasticity (isoelastisch)**--> 10% price change leads to exact 10% demand change

Price elasticity formula

Percentage change in quantity demanded / Percentage change in price
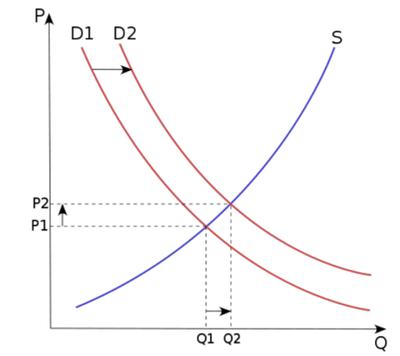
Demand curve

If price decreases (increases) then demand increases (decreases) if **ceteris paribus** (no changes in environment)

Concept of utility

Marginal utility is the utility a consumer gets from using 1 extra unit
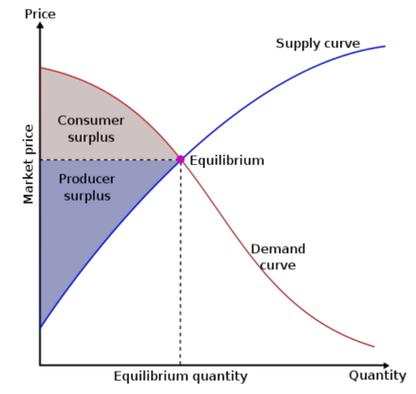
Consumer equilibrium

Consumer looks for maximum utility possible from a certain amount of income (MU=Marginal utility, P=Price)

$$\frac{MU_a}{P_a} = \frac{MU_b}{P_b} \ldots\ldots = \frac{MU_z}{P_z}$$

If Price a rises, MU/P (a) decreases and therefore MU/P (b) increases. Therefore MU (a) rises whereas MU (b) decreases

Classification of goods

income effect = when prices change it's like a change in income

substitution effect = when prices fall people will substitute other goods in favour to the one where the price falls

Price change, demand change

Goods

more income, more demand but price elasticity <1 — Necessities

Above a certain level of income the demand will go up disproportional — Luxury

❶ Normal goods

More money available, people switch to better products — ❷ inferior goods

price rise --> more bought of product (rice instead of meat) — ❸ Giffen goods

luxury products --> wants to have — ❹ Veblen goods

Consumer surplus

is the excess of the price the customer is willing to pay for a good

Determinants of demand

Function =

Qd= Quantity of demanded products, Po=Own price, Ps=Price substitutes, Pc=Price complementary, Aa,b,z=Advertising expenditure, Yd=Disposable consumer income (after taxes etc.), W=Wealth effects (stock booms etc.), T=Changes in consumer tastes, C=Cost & availability of credit, E=Consumers future price & product availability, POP=Changes in population

$$Q_d = f(P_o, P_s, P_c, A_{a,b\ldots z}, Y_d, W, T, C, E, POP)$$

if there is a change in price the demand changes along the demand curve but when a other determinants change there will be a shift of the curve to left (decrease) or right (increase)