Economics: Cheatsheet

Ronald Mangang

Contents

Part I.

Microeconomics

1. Market Equilibrium

Demand function.

Demand curve.

Shift in demand curve.

Individual demand vs market demand.

Normal good vs inferior good.

Supply function.

Supply curve.

Market equilibrium.

Price elasticity.

Elasticity and revenue.

2. Consumer Behavior

Indifference curve. Marginal Rate of Substitution (M.R.S.) = slope

Budget line. Marginal utility $= \dfrac{\partial u}{\partial x}$.

Consumer equilibrium. Indifference curve intersects the budget line.
M.R.S. $= \dfrac{p_1}{p_2}$ = slope of the budget line.

Equal marginal principle. Deduce the conditions of consumer equilibrium using Langragian multipliers.

3. Producer Behavior

Production function. Output, $Q = f(L, k, \text{land}, \text{efficiency}, \ldots)$.

Marginal productivities:

- $\text{M.P.}_L = \dfrac{dQ}{dL}$
- $\text{M.P.}_k = \dfrac{dQ}{dk}$

Isoquant curve. A curve that displays combinations of labor L and capital k for the same output.

Marginal Rate of Technical Substitution (M.R.T.S.) = slope.

Returns to scale. Can be increasing, constant or decreasing.

Costs. Total cost (T.C.) = fixed cost (F.C.) + variable cost (V.C.)

Marginal cost (M.C.) $= \dfrac{d(T.C.)}{dQ} = \dfrac{d(V.C.)}{dQ}$.

V.C. $= rk + wL$, where r is the rate of interest and w is the wage.

Suppose k is held constant. We obtain

$$M.C. = \frac{w}{M.P._L}$$

Repeat the same by holding L constant.

Iso-cost line. $rk + wL = \text{const.}$

slope $= \dfrac{w}{r}$.

Optimizing production subject to fixed cost. $\dfrac{M.P._L}{M.P._k} = \dfrac{w}{r}$.

Optimizing cost subject to fixed production.