Review Notes - Micro Review

- Definitions
  - What is Economics? Microeconomics? Macroeconomics?
  - Scientific Method
  - Positive versus Normative Analysis/Statements
  - Opportunity Costs
  - Scarcity
  - Rationality
  - Real versus Nominal Prices

- Production Possibility Frontier Model
  - assumption of the model
    - scarcity
  - understanding the model
    - what does the frontier represent/how does it divide up the production space?
    - how does the frontier move?
    - increase or decrease in technology?
    - increase or decrease in resources?
    - how is opportunity costs demonstrated in the model?
  - What does the model show?
    - Scarcity
    - Technological efficiency and inefficiency
    - Unemployment and full employment of resources
    - Opportunity cost
    - Law of diminishing returns/law of increasing (opportunity) costs (what is the difference between the two?)
    - How choices made today affect future production possibilities

- Demand Defined
  - definition
  - the law of demand (as P increases => Q_d decreases)
    - Why?
      - substitution effect
      - income effect
    - absolute vs. relative price for the law of demand

- ▪ market demand
- Other influences on Demand
  - ▪ tastes and preferences: as they increase => D increases and reverse
  - ▪ income (Y)
    - • normal goods: as Y increases => D increases and reverse
    - • inferior goods: as Y increases => D decreases and reverse
  - ▪ the price of related goods
    - • substitutes in consumption: as P_s increases => D increases and reverse
    - • complements in consumption: as P_c increases => D decreases and reverse
  - ▪ the number of demanders (buyers) in a market: as # increases => D increases and reverse
  - ▪ expectations about the future: if expect P increase in the future => D increases in the present and vice versa
- Change in Demand (D) vs. change in Quantity Demanded (Q_d)

- Supply Defined
  - ▪ definition
  - ▪ the law of supply (as P increases => Q_s increases)
  - ▪ market supply
- Other influences on Supply (besides the good's own price)
  - ▪ costs of production: as costs increases => S decreases and reverse
    - • technology: as tech. increases => costs decrease and reverse
    - • input prices: as input prices increases => costs increase and reverse
  - ▪ the price of related goods
    - • substitutes in production: as Ps increases => S decreases and reverse
    - • complements in production: as P_c increases => S increases and reverse
  - ▪ the number of suppliers (firms) in a market: as # increases => S increases and reverse
  - ▪ expectations about the future: if expect P increases in the future => S decreases in the present and vice versa
- Change in Supply (S) vs. change in Quantity Supplied (Q_s)
- Demand and Supply as flow variables (vs. stock variables)

- Market equilibrium
  - ▪ Definitions

- equilibrium
  - stable equilibrium
- How does the market attain equilibrium?
  - excess demand or a shortage
    - price competition among <u>consumers</u>
  - excess supply or a surplus
    - price competition among <u>suppliers</u>

- Predictions about equilibrium P and Q
  - increase in D => what happens to equilibrium P and Q?
  - decrease in D => what happens to equilibrium P and Q?
  - increase in S => what happens to equilibrium P and Q?
  - decrease in S => what happens to equilibrium P and Q?
  - increase in D and increase in S => what happens to equilibrium P and Q?
  - increase in D and decrease in S => what happens to equilibrium P and Q?
  - decrease in D and increase in S => what happens to equilibrium P and Q?
  - decrease in D and decrease in S => what happens to equilibrium P and Q?

- Elasticity
  - Definition of 4 different types
    - Price Elasticity of Demand (η)
    - Price Elasticity of Supply (η_s)
    - Income Elasticity of Demand (η_y)
    - Cross Elasticity of Demand ($\eta_{x,y}$)
  - Interpretation of size and sign of the elasticity coefficient for each type of elasticity.
    - sign
      - $-\eta$ < or = 0 always; reflects the law of Demand (as P increases => Q_d decreases)
      - $-\eta_s$ > or = 0 <u>always</u>; reflects the law of Supply (as P increases => Q_s increases)
      - $-\eta_y$; if η_y > 0 => as income increases, Q_d increases, => the good is normal.

        if η_y < 0 => as income increases, Q_d decreases, => the good is inferior.
      - $\eta_{x,y}$; if $\eta_{x,y}$ > 0 as P_x increases, Q_d of y increases => x and y are substitutes.

        if $\eta_{x,y}$ < 0 as P_x increases, Q_d of y decreases => x and y are complements.

        if $\eta_{x,y}$ = 0 as P_x increases, Q_d of y is constant => x and y are unrelated.

- size
  - $-\eta$; if $\eta > 1$ => D is price **elastic** ($\%\Delta$ Q_d > $\%\Delta$ P).

    if $\eta < 1$ => D is price **inelastic** ($\%\Delta$ Q_d < $\%\Delta$ P).

    if $\eta = 1$ => D is **unitarily** elastic ($\%\Delta$ Q_d = $\%\Delta$ P).

  - $-\eta_s$; if $\eta_s > 1$ => S is price **elastic** ($\%\Delta$ Q_s > $\%\Delta$ P).

    if $\eta_s < 1$ => S is price **inelastic** ($\%\Delta$ Q_s < $\%\Delta$ P).

    if $\eta_s = 1$ => S is **unitarily** elastic ($\%\Delta$ Q_s = $\%\Delta$ P).

  - $-\eta_y$; if $|\eta_y| > 1$ => D is income **elastic** ($|\%\Delta$ $Q_d|$ > $|\%\Delta$ Y$|$).

    if $|\eta_y| < 1$ => D is income **inelastic** ($|\%\Delta$ $Q_d|$ < $|\%\Delta$ Y$|$).

    if $\eta_y > 1$ => the good is a luxury.

    if $0 < \eta_y < 1$ => the good is a necessity.

  - $-\eta_{x,y}$; if $\eta_{x,y} > 0$ => as $\eta_{x,y}$ increases x and y become closer substitutes.

    if $\eta_{x,y} < 0$ => as $\eta_{x,y}$ decreases (increases in absolute value) x and y become closer complements.

  - **make sure you know how to interpret elasticity coefficients**
  - **likewise, make sure you understand the difference between arc and point elasticity formulas**

- Efficiency
  - allocative efficiency and inefficiency
    - MSB and MSC (what are those?)
    - efficiency occurs where?
  - technological efficiency and inefficiency
    - definition
- Applications
  - Health Insurance
    - what is the impact of regular third-party health insurance?
      - to price and quantity?
      - allocative efficiency?