Midterm Review

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CH1 Review

- Optimization, equilibrium, and empiricism.
- Opportunuty cost

CH2 Review

- Empiricism: testing models with data
- Correlation doesn't imply causation due to omitted variables or reverse causality.

CH3 Review

- Optimization: choosing the best feasible option
- Optimization using total value
- Optimization using marginal analysis
- Two ways lead to the same result.

CH4 Review

- Law of Demand: P $\uparrow$, Q $\downarrow$ vs. demand shifts
- Willingness to pay: the highest price that a buyer is willing to pay for an extra unit of good
- Law of supply: P $\uparrow$, Q $\downarrow$ vs. supply shifts
- Willingness to accept: the lowest price that a seller is willing to get paid to sell an extra unit of good
- Competitive equilibrium: quantity demanded = quantity supplied

CH5 Review

- Budget constraint $\Rightarrow$ opportunity cost
- Elasticity: 各公式請參考正課、實習課 PPT
- Arc elasticity: 一種彈性的計算方式，可用在各種彈性上。

CH6 Review

- $\text{MC} = \frac{\text{dTC}}{\text{dQ}}$
- **Short-run supply curve:** MC above AVC, firms shutdown when price < AVC in the short run.
- **Long-run supply curve:** MC above ATC, firms exit when price < ATC in the long run.
- Firms in a perfectly competitive market earn zero economic profit in the long run.

CH7 Review

- Efficiency among individuals
- Efficiency within an industry
- Efficiency across industry
- Interventions such as price control create deadweight loss (DWL).

CH8 Review

- Production possibility curve ⇒ opportunity cost
- Comparative advantage: 機會成本較小者
- Terms of trade
- No matter the country is exporting or importing goods, for the country's economy as a whole, trades improve social surplus.

CH9 Review

- The market outcome is not efficient when externalities exit.
- Private solution: bargaining ⇒ Coase Theorem
- Government solutions: command-and-control regulations, market-based regulations
- Public goods: non-excludable and non-rival
- Common pool resource goods: non-excludable but rival ⇒ negative externality