

# HANDOUT 1

## About Your TA

- **Hao-Che (Howard) Hsu**
- Discussion Section: (62037) Mon 4:00 pm - 4:50 pm at SST 220A
- Office Hour: Tue 11:00 am - 12:00 pm at SST 338 or by appointment
- My Website: [haochehsu.com](http://haochehsu.com) (Handout is located at the *Teaching* section)
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## 1 Logistics

- Any comments feel free to use the anonymous *Feedback Survey* (on my website under *Teaching*)
- Midterm: 5/9 (Tue) 3:30 pm - 4:50 pm.
- Final: 6/13 (Tue) 4:00 pm - 6:00 pm.
- Homework Ch1 + Ch2: due next Monday (4/17) at 11:00 am.

## 2 Economics (A training of intuition)

- How do we do economics analysis? *Ceteris paribus*, holding other things constant.
  - All other relevant variables are **held constant** when examining the impact of one economic variable on another (the effect of a particular economic variable on another is isolated and analyzed in a controlled environment).
- It's all about *optimization*. Given **limited** resources and **unlimited** wants, how do we make the **right** choice? We want to minimize (total) cost or loss.
- Opportunity cost: need to consider both the monetary amount paid (explicit) and the value of the time you are giving up (implicit).
- Statements:
  - Positive: **describes** the world as it is. e.g. Math and graphs are used in ECON 20A.
  - Normative: provides **opinion** on how the world ought to be. e.g. People should study Economics.

## 3 Marginal Analysis

- When faced with two options, choose the one with the larger **marginal** benefit.
- Law of diminishing marginal utility<sup>1</sup>.
- Optimization:
  - Firm profit maximizing: marginal revenue (MR) = marginal cost (MC)
  - Maximizing *bang per buck*: maximizing the marginal utility for each dollar spent.

<sup>1</sup>Utility is the “satisfaction”, “happiness”, or “well-being” an individual receives. We use “utils” as an artificial measurement to quantify utility.

## 4 Efficiency vs Equality

- Productivity: how much output (goods and services) can be generated per unit of input (labor).
- Efficiency
  - All about **distribution**.
  - Society maximizes the use of its limited resources.
  - Efficiency  $\uparrow \implies$  economy more productive  $\implies$  bigger economic output (economics pie).
- Equality
  - Economic benefits are **evenly** spread across society.
  - When governments design policies aimed at **increasing** equality, society must also be prepared to accept a **decrease** in efficiency.

## 5 The Market

- Market failure: the market is not able to **efficiently** distribute resources when it is operating **without intervention**.
  - e.g. market power and externality.
  - Solution: Government intervention.
- Market power: the ability of an individual or group to influence the market price.
- Externality: the impact of an individual's activities on the well-being of a **bystander**.

## 6 Exercises

1. Wells is currently working in Irvine and makes \$450 a day. In May, Wells plans to take 2 unpaid vacation days off for a long weekend to go to Palm Springs. During the vacation, he will have to pay \$100 for food, \$16 for the ticket to the Art Museum, \$30 for the admission fee for the Living Desert Zoo, and \$50 for gas. If Wells stays in Irvine, he will need to spend \$100 on DoorDash orders. What is the opportunity cost of Wells' vacation?
2. Stella is considering a visit to the OC Zoo this weekend, and she wants to calculate the opportunity cost of this decision. Which of the following should be included in her calculation?
  - (a) The value of her time, but not the ticket price.
  - (b) Only the ticket price, but not the value of her time.
  - (c) Both the price she pays for the ticket and the value of her time.
  - (d) Neither the price of the ticket nor the value of her time.
3. Sam has two options: work at Starbucks for an hourly wage of \$20 or sell coffee himself. If he chooses to sell coffee, he must choose only one type to sell. He can sell Hazelnut Latte for hourly earnings of \$31, Caramel Macchiato for \$23, or Americano for \$15. If Sam takes a 4-hour nap, what is the opportunity cost of his decision?

4. Vib is considering buying a fifth can of Coke. Which of the following statements is true regarding the marginal benefit he would receive from this purchase?
- (a) The marginal benefit is equal to the difference between the total benefit he would receive from purchasing 6 Cokes and the total benefit he would receive from purchasing 5 Cokes.
  - (b) The marginal benefit is equal to the difference between the total benefit he would receive from purchasing 5 Cokes and the total benefit he would receive from purchasing 4 Cokes.
  - (c) The marginal benefit is equal to the total benefit he would receive from purchasing 5 cans of Coke.
  - (d) The marginal benefit is greater than the marginal cost of purchasing the fifth can of Coke.
5. Which of the following statements correctly describes the slope of a line?
- (a) A line that is somewhat flat but slopes upward will have a large negative slope.
  - (b) The slope of a line that is steep and slopes upward will be a slightly negative number.
  - (c) If a line is horizontal, its slope will be infinite.
  - (d) The slope of a downward-sloping line is a negative number.
6. What is the primary reason why both individuals and society face numerous decisions?
- (a) Abundant goods and services.
  - (b) Fluctuating incomes due to business cycles.
  - (c) Disagreement among people.
  - (d) Scarce resources.
7. There are nine California state tax brackets: 1%, 2%, 4%, 6%, 8%, 9.3%, 10.3%, 11.3% and 12.3%. States such as Colorado, Illinois, and Utah have a flat rate. Which of the following statements accurately describes the likely effect of California's state tax brackets?
- (a) Equality and efficiency both increased.
  - (b) Equality is decreased and efficiency is increased.
  - (c) Equality and efficiency both decreased.
  - (d) Equality is increased and efficiency is decreased.
8. Which of the following describes the behavior of a rational decision-maker?
- (a) They take an action only if the combined benefits of that action and previous actions exceed the combined costs of that action and previous actions.
  - (b) They focus on "the big picture" and ignore marginal changes.
  - (c) They take an action only if the marginal benefit of that action exceeds the marginal cost of that action.
  - (d) They disregard the likely effects of government policies when making choices.

9. If a hotel has 1000 rooms and its nightly operating cost is \$20,000, and it currently has five vacant rooms for the night, what would be the appropriate price for the hotel manager to rent out one of the empty rooms given that the cost of operating one room for one night is \$100?
- (a) More than \$20, because the marginal benefit will exceed the marginal cost.
  - (b) More than \$20, because the average benefit will exceed the marginal cost.
  - (c) More than \$100, because the average benefit will exceed the marginal cost.
  - (d) More than \$100, because the marginal benefit will exceed the marginal cost.
10. Which of the following describes the type of statements that economists make when recommending specific policies?
- (a) Claims about how the world is.
  - (b) Descriptive statements.
  - (c) Positive statements.
  - (d) Normative statements.
11. Which type of graph should Kavita use to display the relationship between airline ticket prices and the corresponding number of airline tickets demanded by customers?
- (a) Coordinate system.
  - (b) Bar graph.
  - (c) Histogram.
  - (d) Time-series graph.
12. What factors can impede the ability of the "invisible hand" to coordinate the decision-making of firms and households in the economy?
- (a) A rise in market competition.
  - (b) The implementation of property rights enforcement.
  - (c) Interference by the government actions that distort prices.
  - (d) An excessive focus on efficiency.
13. Which of the following options accurately reflects the basic principles of economics?
- (a) Government should never become involved in markets.
  - (b) Markets are seldom, if ever, a good way to organize economic activity.
  - (c) Government should become involved in markets when those markets fail to produce efficient or fair outcomes.
  - (d) Government should become involved in markets when trade between countries is involved.