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Lecture 1

Basics & Prerequisites

Economics & Society

SMU

Basics & Prerequisites

Lecture 1

Economics

- **Where** does the word economics come from?

οικονομικά = ***οίκος*** + ***νόμοι***

- ***Economics*** is the study of how humans ***choose*** to use the ***scarce*** resources, which ***nature*** and ***previous generations*** have provided
- Economics is a ***way of thinking***
- Lets consider a ***non-economic*** example of choice

The 2 branches of economics

- ***Microeconomics***
  - Examines the behavior of individual decision-making ***units***
  - Deals with the decisions of the ***firms***, ***households***, ***market regulators***.
- ***Macroeconomics***
  - Examines the behavior of economic ***aggregates***
  - ***Deals with*** income, production, employment ***variables*** on a national scale.
- ***Micro*** or ***macro***?:
  - Price of tuition at SMU
  - National average cost of tuition for universities
  - General price level

Micro vs. Macro

- ***Why*** economic units and the economy as a whole are analyzed with different branches of economics?
- ***Question***:
- The reason is the ***fallacy of composition***

  the ***erroneous belief*** that what is true for a part is also true for the whole
- **Examples:**
- An ***economic example***:
  - If I receive a ***higher salary***,
  - If ***everybody receives*** a higher salary,

Opportunity Cost

- Making a choice automatically entails that we ***give up*** the rest of the alternatives
- ***Opportunity Cost***: the benefit lost from a choice over its ***next best*** alternative
- Opportunity costs are ***not paid*** to anyone but are ***still incurred***
- Making a video ***explicitly costs me 0 dollars*** because I film on my own:
  - YET, it deprives me from the opportunity of ***working*** consulting projects
  - AND from renting out my ***equipment***.
- Accountants ***do not count*** opportunity cost
  because it is ***not actually paid to anyone*** and there are ***no receipts or invoices*** for it
- Economists always ***take it into account***
  because decisions ***must always involve*** ALL benefits and ALL costs

Sophia's freelance enterprise

- Sophia works at a store for $150 per day
- Alternatively, she could make and sell ***bracelets*** for $15 each:
  - ***Each day***, Sophia can make up to 20 bracelets
  - ***Raw materials*** for each bracelet cost $8.
- According to an accountant, her ***profit*** would be:
  $15 \cdot 20 - \$8 \cdot 20 = \$300 - \$160 = \$140$ per day
- According to an economist, her ***profit*** should take into account her ***labor cost***:
  $15 \cdot 20 - \$8 \cdot 20 - \$150 = \$300 - \$160 - \$150 = -\$10$ per day
- Sophia still makes ***$140 per day*** but this is NOT ***economic profit***
  it is ***wage*** –a payment for her **time**– under its actual market value ($150)
- ***Profit*** is what remains after ***ALL costs*** have been accounted for

The *"Ceteris Paribus"* principle

- "***Ceteris Paribus***" is Latin for "*everything else equal*"
- Assume that we want to ***improve the performance*** of a car

Engine	Tires	Stickers	Lap time
Atmospheric	185/65r15	No	**1:52.876**
Turbo	185/65r15	No	**1:32.891**
Turbo	205/55r16	Lots	**1:22.772**

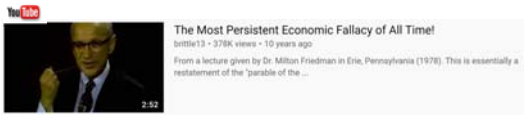
- Can you tell if the ***turbo modd*** improved the performance?
- Can you tell if the ***tires modd*** improved the performance?
- A variable must change ***ceteris paribus*** for calculating its effect on another variable

Post hoc ergo propter hoc fallacy

- The *post hoc, ergo propter hoc fallacy* is a ***logical fallacy***
  Latin for: "*after this, therefore because of this*"
- It entails that "*if something always happens before something else, it does* **NOT necessarily mean** *that the first event caused the second*"
- Assume, ***for instance***, that:
  - *A* ***causes*** both *B* and *C*
  - *B* is observable ***earlier*** than *C*
  - *A* is ***non-observable***.
- In this case, ***an observer*** who will be seeing "*B* and then C", may ***falsely*** believe that *B* causes *C*, which is ***not the case***

External video

From a lecture given by Nobel laureate in Economics, Milton Friedman, in Pennsylvania in 1978. A member of the audience tries to lure Freedman into a logical fallacy. See how he shoots down the argument by making the fallacy visible to the audience. Try to figure out which kind of fallacy it is.



Basic concepts

Economic actors

- According to economics, society is build by 3 different ***basic blocks***:
  - The households: sometimes referred to as "consumers" or "individuals" is the ***consuming unit*** of the economy
  - The firms: sometimes referred to as "sellers" or "producers" is the ***producing unit*** of the economy
  - The government: the economic unit that ***governs*** or ***regulates*** the economic activity.
- Sophia is a ***firm*** as far as we consider her as a producer of bracelets BUT a ***household*** if we consider her choices as a consumer
- Sony and Tesla are ***firms***, the owners of which are ***households***
- MRT or SMU are ***firms***, the owner of which is the ***government***

Basic concepts

Representative agent

- In an economy ***no*** two economic actors ***are alike***
- The actions of billionaires and colossal corporations affect the economy ***more*** than everyday individuals and firms
- In economics, we often ***simplify*** reality by applying the ***representative agent***
  that is, we assume that the economy consists of ***copies of the average actor*** instead of actors of various importance
- Then, we ***analyze*** the decisions of the representative agent and ***generalize*** to the economy as a whole
- This approach can be ***used only*** when the actual dissimilarity of actors ***does not affect*** the analysis

Basic concepts

Utility

- When considering decisions by households, we need to ***rank*** alternative choices
- Economists assign ***units of utility*** to alternative choices
  the more units, the more ***preferable*** the alternative choice
- Utility is how Economics deals with ***preference***
  tries to ***quantify*** utility / pleasure / satisfaction / happiness from consuming something
- I asked ***7 students*** to assign units of utility to several things:

Pizza	Chocolate	Sex	Bubble tea
160 units	211 units	217 units	1,617 units

- The ONLY purpose of units of utility is to ***rank*** the possible alternatives
  - We ***cannot say*** that is ***ten times*** better than
  - ***Neither*** that they would ***prefer*** over

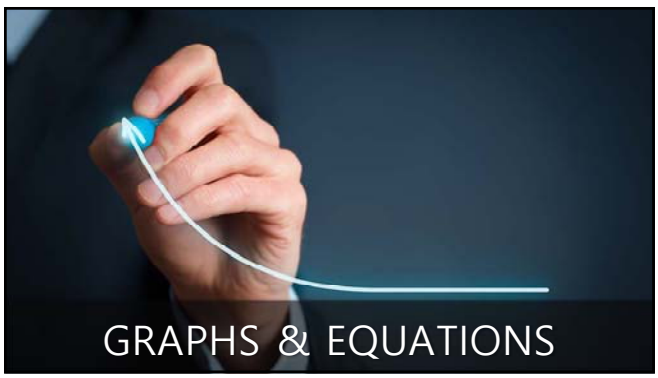
Basic concepts

Average & Marginal values

- Assume that this is my ***utility*** from slices of cheese cake:

Slices	0	1	2	3	4
Total Utility (U)	5	15	24	24	12

- Average utility is the total ***divided*** by the number of units
- Marginal utility is the total ***minus*** the previous total
  how much each unit ***contributes*** to total utility
- Average and marginal values can be used for ***all series of numbers***
  utility, cost, production, revenue, profit, etc.



Internal video

This video will take you through graphs and equations at the level we will need them in this course. If you already have some technical background, you will find this video really easy. If not, it will not be hard to follow till the end.

Thank you!

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WARNING!

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