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Lecture 1  
Basics & Prerequisites

Economics  
& Society

SMU

1

## Basics & Prerequisites

Estimated duration: 70min

WHAT IS ECONOMICS?

BASIC NOTIONS

GRAPHS & EQUATIONS

Lecture 1

2

WHAT IS ECONOMICS?

3

## Economics

> Introduction to Economics

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

	<i>home</i>	<i>laws</i>
<i>οικονομικά</i>		
	<i>(ikos)</i>	<i>(nomi)</i>
- ★ **Economics** is the study of how humans **choose** to use the **scarce** resources, which **nature** and **previous generations** have provided
- ★ Contrary to what most people believe, Economics is:
  - ▶ **less about** money, finances and business
  - ▶ **Mostly**, is the science that explains intelligent decision making.
- ★ Let's consider a **non-economic** example of choice.

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4

## The 2 branches of Economics

> Introduction to Economics

### \* **Microeconomics**

- ▶ Examines the behavior of individual decision-making **units**
- ▶ Deals with the decisions of the **firms, industries, households, market regulators**.

### \* **Macroeconomics**

- ▶ Examines the behavior of economic **aggregates**
- ▶ **Deals with** income, production, employment **variables** on a national scale.

### \* **Micro or macro?:**

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5

5

## Micro vs. Macro

> Introduction to Economics

\* **Why** economic units and the economy as a whole are analyzed with different branches of economics?

\* **Question:** What color is the sea?

\* 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:**

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6

6



BASIC NOTIONS

7

## Opportunity Cost

> Basic notions

\* Making a choice automatically entails that we **give up** the rest of the alternatives  
if I **go for a run** on Sunday morning, I **forgo** the pleasure from reading a book

\* **Opportunity Cost:** the benefit lost from a choice over its **next best** alternative

\* Opportunity costs are **not paid** to anyone but are **still incurred**:

\* 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

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8

8

## Sophia's real cost

> Basic notions

- ★ Sophia works at a store for \$150 per day
- ★ Alternatively, she could make and sell **bracelets**:
  - ▶ Sophia can make 20 bracelets per day
  - ▶ **Raw materials** for each bracelet cost \$8.
- ★ According to an accountant, the **cost per bracelet** would be \$8
- ★ According to an economist, the **cost per bracelet** should also include her **labor**  
 $\$8 + \$150/20 = \$15.5$  per bracelet
- ★ This difference in the definition of cost leads to 2 definitions of **profit**:
  - ▶ **Accounting profit** = Revenues – explicit costs
  - ▶ **Economic profit** = Revenues – ALL costs



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9

9

## The “Ceteris Paribus” principle

> Basic notions

- ★ “**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

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10

10

## Post hoc ergo propter hoc fallacy

> Basic notions

- ★ 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**



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11

11

## 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 Friedman 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.

YouTube



The Most Persistent Economic Fallacy of All Time!

brittle13 · 378K views · 10 years ago

From a lecture given by Dr. Milton Friedman in Erie, Pennsylvania (1978). This is essentially a restatement of the 'parable of the ...

2:52

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12

12

## Economic actors

> Basic notions

- ★ 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 **sets the rules** for 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**

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13

13

## Representative agent

> Basic notions

- ★ 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

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14

14

## Utility

> Basic notions

- ★ 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** this choice is
- ★ 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:

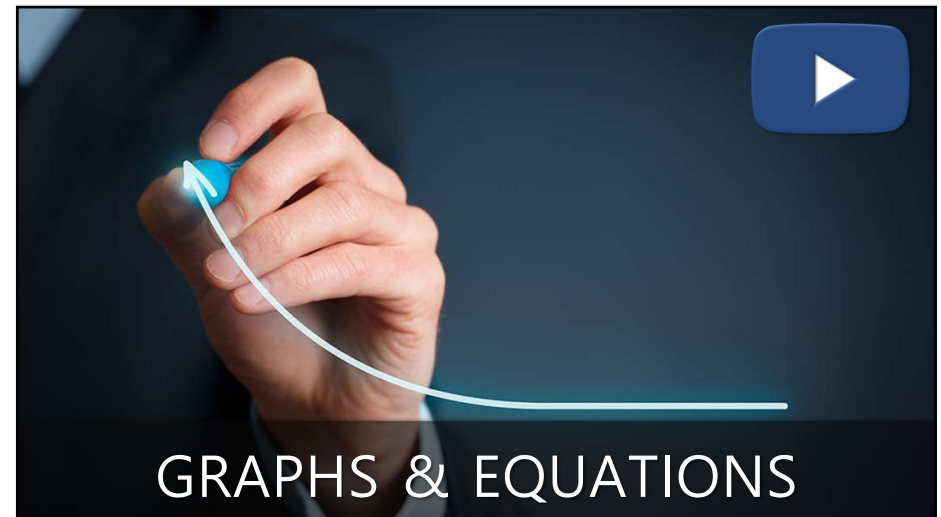
Pizza	Chocolate	Sex	Bubble tea
160 units	211 units	217 units	1,617 units
- ★ The **ONLY** purpose of units of utility is to **rank** the possible alternatives
  - ▶ We **cannot say** that Bubble tea is **ten times** better than Pizza
  - ▶ **Neither** that they would **prefer** 2 pizzas over 1 chocolate bar

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15

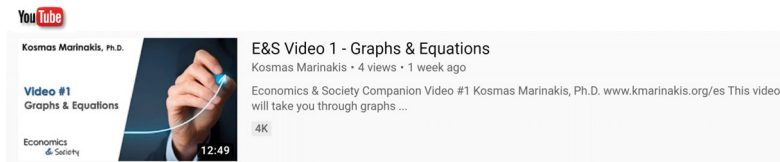
15



16

## 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.*



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17

17

Thank you!

*(you are welcomed to stay for consultation or discussion)*

18

## **WARNING!**

The slides in this handout are created with the intention to serve as visual aid for the audience during the live presentation of the material in the lecture. As such, **they are not designed to be standalone reading material** and should be used strictly as **reference**, side by side with notes taken in the lecture. Studying solely from the slides **is not recommended** and might in some cases **mislead** those who have not attended the relevant lecture. **Little or none tasks in test and exam can be answered solely from the slides.**

19