

# Lecture 1: Introduction

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## Introduction

- Science of choice – unlimited wants but limited resources (scarcity)
- Microeconomics: how households and firms make choices, interact in markets, and govt. attempting to influence their choice
- Macro: economy as a whole (inflation, unemployment, economic growth)

## Learning outcomes

- Identify and critically evaluate market conditions
- Use mathematical and graphical techniques to analyze economic principles.
- Understand the strategic interactions between firms.
- Understand and analyze the effect of market distortions and the role of government.
- Appreciate and understand the importance of key economic variables (such as GDP, unemployment and inflation) in the macroeconomy and the use of fiscal and monetary policy in maintaining full employment and price stability.

## Foundations of economic reasoning

### Explain these three important economic ideas:

- People are rational
- People respond to economic incentives
- Optimal decisions are made at the margins
  - Marginal analysis: comparing marginal (additional) benefit and marginal costs – weight between

### Understand the issues of scarcity and trade-offs, and how the market makes decisions on these issues

- Scarcity: unlimited wants exceed limited resources available to fulfill wants
- Resources: inputs to production (natural resources- land, water, labour, capital, entrepreneurial ability)
- Trade-offs: because of scarcity, producing more of one G&S, producing less of another – force choices
- Questions
  - What G&S will be produced
  - How will G&S be produced
  - Who will receive G&S produced (govt. intervention through income redistribution)
- Efficiency and equity
  - Productive efficiency: G&S produced using least amount of resources
  - Allocative efficiency: production reflects consumer preferences – where last unit provides marginal benefit to consumer = marginal cost of producing
  - Dynamic efficiency: new technology and innovation adopted
  - Equity: fair distribution of economic benefits between individuals and between societies.
  - Efficient outcome may not be equitable

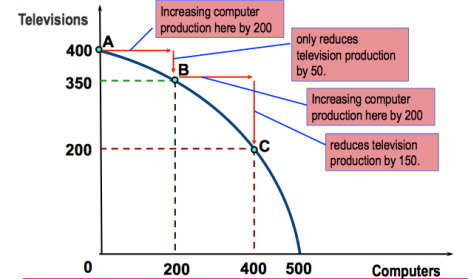
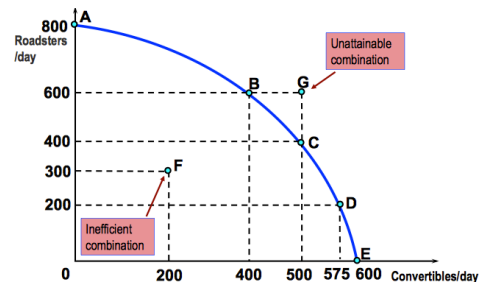
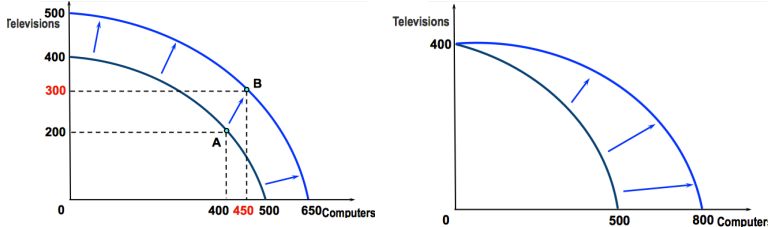
### Understand the role of models in economic analysis

- Steps
  - Decide assumptions to be used to develop model
  - Formulate testable hypothesis
  - Use economic data to test hypothesis
  - Revise model if it fails to explain economic data
  - Retain revised model to help answer similar future economic questions
- Forming and testing hypotheses
  - Hypothesis: statement may be either correct or incorrect about economic variables
  - Distinguish between correlation and causation
    - Correlation: A mutual relationship or connection between two or more things
    - Causation: Action of causing something
  - Positive and normative analysis
    - Positive: What is and value-free statements checked using the facts

- Normative: What ought to be, value judgements, cannot be tested

## Use production possibility frontier to analyse opportunity costs and trade-offs

- PPF: Curve showing the maximum attainable combinations of two products produced with resources
- Opportunity cost: Highest-valued alternative that must be given up to engage in an activity
- Line is increasing marginal opportunity cost – more resources devoted to activity, the smaller the payoff to devoting additional resources to activity
- Economic growth: expansion of society's production potential (uses PPF)
- Shifting out the PPF (1 or both)



- Opportunity costs
  - Explicit: paying for it – accounting
  - Implicit: Not directly expressed
  - Do not include unrecoverable / sunk costs
  - E.g. Mary works as an independent accountant. She makes \$100,000 a year and has already paid a registration fee of \$20,000. She is considering starting her own company. This would involve withdrawing \$40,000 from her savings account for the start-up costs. What is the opportunity cost of starting her own business?
    - Explicit (\$40,000) + Implicit (\$100,000 + savings interest)
  - E.g. Louise (businesswoman earns \$100/h) or John (student earns \$20/h)
    - Plane 1 hr \$200
    - Bus 6 hr \$30
    - OC = Explicit (ticket) + implicit (time)
    - Louise:  $OC_p = 200 + 100 = 300$  OR  $OC_b = 30 + 600 = 630$  THEREFORE PLANE  $p < b$
    - John:  $OC_p = 200 + 30 = 230$  OR  $OC_b = 30 + 120 = 150$  THEREFORE BUS  $p > b$

## Understand comparative advantage and explain how it is the basis of trade

- Trade: Act of buying or selling G&S in market
- Absolute advantage: ability to produce more G&S than competitors using same amount of resources
- Comparative: ability to produce G&S at lower opportunity cost than competitor

### Example 1

- E.g. Better off by trading → You have comparative advantage in apples and neighbour in cherries
- Last – opportunity cost: neighbour has lower OP of producing cherries and you have lower in apples. – You produce apples and neighbour produces cherries
- Exchange rate: Lowest price you accept for 1kg apples = 1kg cherries OR highest price neighbour pays for 1kg apples is 2kg cherries
- Therefore  $1\text{kg } C < \text{Price of } 1\text{kg of } A < 2\text{kg of } C$

	You		Your neighbour	
	Apples	Cherries	Apples	Cherries
All time picking apples	20 kg	0 kg	30 kg	0 kg
All time picking cherries	0 kg	20 kg	0 kg	60 kg

	You		Your Neighbour	
	Apples (kg)	Cherries (kg)	Apples (kg)	Cherries (kg)
Production and consumption without trade	8	12	9	42
Production with trade	20	0	0	60
Consumption with trade	10	15	10	45
Gains from trade	2	3	1	3

	1 kg of apples	1 kg of cherries
You	1 kg of cherries	1 kg of apples
Your neighbour	2 kg of cherries	0.5 kg of apples

### Example 2

- Jack catches 8kg fish or 2kg mangos, Jenny catches 2kg fish or 10kg mango (currently half each)
- Opportunity cost:
  - $OP_{\text{Fish/Jack}}: 2/8 = 0.25$  mangos