

ECON 211 - Principles of Macroeconomics
Notes for Exam 1

1. Definition of Economics (Ch. 1)
 - Economics is the science of human choice, the study of how scarce resources are allocated among competing uses to satisfy human wants.
 - Because human wants are virtually unlimited but resources needed to fulfill them are scarce, individuals and societies must make choices.
 - Since choice is universal, economics is a unique blend of liberal arts and business.

2. Basic economic resources and examples (Class Notes)
 - Land, labor, capital, and entrepreneurship are the basic economic resources.
 - "Land" refers to any and all natural resources, such as plots of ground on the surface of the earth, rivers, lakes, forests, and mines.
 - "Labor" refers to the knowledge, skills, and abilities that can be used to produce goods and services.
 - "Capital" refers to machines, buildings, and tools (i.e., physical capital), and knowledge acquired through education and training (i.e., human capital).
 - "Entrepreneurship" refers to the ability to organize and lead the production of goods and services as well as the ability to deal with risks and uncertainties associated with such activities.
 - Each of these resources is scarce. Land is the most limited resource because its quantity is determined by Mother Nature. Conversion of one form of land (e.g., lakes) into another form (e.g., plots of land) does not increase the total area of land.

3. Generation of income from economic resources (Class Notes)
 - Economic resources are used to generate income.
 - Income is exchanged for goods and services which are used to satisfy human wants.
 - Below are the types of income generated from economic resources:

Resource	Income
Land	Rent
Labor	Wages
Capital	Interest
Entrepreneurship	Profits

- $\text{Income} = \text{Rent} + \text{Wages} + \text{Interest} + \text{Profits}$.
 - Income is limited in any given time period because the resources that generate it are limited.
4. Opportunity cost: Origin, definition, and calculation (Ch. 1)
 - Opportunity costs arise because of having to make choices due to scarcity of resources.

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- The opportunity cost of a choice is the value of the best alternative given up when that choice is made.
 - Opportunity costs can be subjective. For example, if Brad enjoys outdoor swimming, the opportunity cost of cleaning his room is greater on sunny days than it is on rainy days.
 - Numerical examples:
 - In a given year, the United States can make 100 fighter planes or build 3,000 miles of roads. If the US chooses to make fighter planes instead of building roads, the opportunity cost per fighter plane for the US is 30 miles of roads.
 - Suppose Jennifer has a choice of working full-time during the summer or going full-time to summer school. Summer tuition and books are \$3,000. If she worked, she could make \$8,000. Her rent is \$1,500 for the summer, regardless of her choice. If Jennifer chooses to go to summer school full-time, the opportunity cost of her choice is \$11,000.
5. **Production Possibilities Frontier (PPF): Definition, underlying assumptions, and the economic concepts it represents (Ch. 2)**
- A PPF is an economic model that can be used to illustrate the concepts of scarcity, opportunity cost, economic efficiency or inefficiency, and economic growth or decline.
 - A PPF is based on the following assumptions: (a) the PPF applies to a particular time period, (b) resources and technology are fixed during that time period, (c) resources can be shifted between the production of alternative goods, and (d) resources are fully and efficiently employed.
 - Numerical example:

Choice	Units of Consumer Goods	Units of Capital Goods	Opp. Cost per unit of Consumer Goods	Opp. Cost per unit of Capital Goods
A	40,000	0	3.8	-
B	30,000	38,000	1.4	0.3
C	20,000	52,000	0.8	0.7
D	10,000	60,000	0.5	1.3
E	0	65,000	-	2.0

6. **Interpretation of points on, inside, or outside a PPF (Ch. 2)**
- Points on the PPF represent efficient combinations of outputs and full employment of resources.
 - Points inside the PPF represent inefficiency or unemployment of resources (or both).
 - Points outside the PPF represent currently unattainable combinations of outputs.

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7. Interpretation of shifts in a PPF and the underlying causes (Ch. 2)
 - An outward shift in a PPF reflects economic growth.
 - An inward shift in a PPF reflects economic decline.
 - The underlying causes include changes in the quantities of resources available, changes in technology, or both.
 - For example, an increase in the quantities of resources available or an improvement in technology would shift a PPF outward. The opposite changes would shift the PPF inward.

8. Interpretation of a concave vs. a straight-line PPF (Ch. 2)
 - A concave PPF reflects that resources are not equally suitable for the production of alternative goods. Thus, as the production of a good is increased, its opportunity cost increases.
 - A straight-line PPF reflects that resources are equally suitable for the production of alternative goods. Thus, as the production of a good is increased, its opportunity cost remains constant.

9. Basic economic questions every nation must answer (Class Notes)
 - What to produce? -- Which goods will be produced?
 - How to produce? -- Which resources should be used? How should resources be combined to produce each product?
 - For whom to produce? -- Who are expected to consume the goods produced?

10. Types of economic systems: Differences and examples (Class Notes)
 - Capitalist or market economy: Decisions are based on individual choices, which are made using the market process.
 - Command economy: Individual choices are purported to be reflected in collective decisions, which are made by central planners.
 - Mixed economy: Combination of capitalism and central planning. This is the dominant economic system in the world because there is private ownership of property but government regulation of individuals reduces some of the flaws of pure capitalism.
 - Decision-making is typically decentralized under capitalism while it is centralized in command economies.

11. Interpretation of demand for a good or service and the law of demand (Ch. 4)
 - The demand for a good reflects the ability and willingness to buy the good.
 - One must have both the ability and willingness to buy in order to be considered as having a demand for the good.
 - The actual purchase of a good provides a clear evidence of the demand for the good.
 - The law of demand states that as the price of a good increases, its quantity demanded decreases and vice versa, all other things remaining constant (*ceteris paribus*).