

الأجزاء المحذوفة لمراجعة الامتحان النهائي

INTRODUCTION TO
economics
money demand
equilibrium resources
scarcity
supply
efficiency
allocation
optimization
cost

Lecture 1

Chapter 1: The challenge of economics

10

Economics and other subjects/sciences	
Economics and philosophy	Should we be concerned with the ethics of the free-market or should economics be value-free?
Economics and politics	How do political pressures affect economists and economic theories?
Economics and psychology	How psychological approaches have challenged the traditional economic view of rational choice theory.
Economics and sociology	How social class and cultural factors affect micro and macroeconomic variables.
Economics and mathematics	How mathematical models are used to underpin economic models and theories.
Economics and physics	The use of physics tools in statistical analysis.
Economics and anthropology	How understanding human culture/society is important to economics.
Economics and biology	How biological science influences economics.
Economics and ecology	Widering economics focus impact on humans to long-term environmental sustainability.

12

Lecture 1
1-3- The Top 4 Definitions -3-

Four definitions, each referring to particular stage of the growth of the subject of economics, are presented here. They are:

- a- Smith's Wealth Definition
- b- Marshall's Welfare Definition
- c- Robbins' Scarcity Definition
- d- Samuelson's Growth Definition

WORTH DEFINITION
WELFARE DEFINITION
SCARCITY DEFINITION
GROWTH DEFINITION

14

Lecture 1
1-3- The Top 4 Definitions -3-

c- Scarcity Definition of Lionel Robbins (the New Age):
"Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses."

d- Growth Definition of Samuelson (the Modern Age):
"Economics is the study of how men and society choose with or without the use of money, to employ scarce productive resources which could have alternative uses to produce various commodities over time, and distribute them for consumption, now and in the future among various people and groups of society."

Scarcity Definition of Economics
Concept of Scarcity
The Scarce Resource

17

Lecture 1
1-4-1- The Fields of Economics

- Behavioural Economics
- Ecological Economics
- Environmental Economics
- Health Economics
- Information Economics
- International Economics
- Labour Economics
- Monetary Economics
- Population Economics
- Public Finance
- Urban Economics

SCOPE OF ECONOMICS

13

Lecture 1
1-3- The Top 4 Definitions -3-

a- Wealth Definition of Adam Smith, the father of economics (the Classical era):
"Economics as a science which inquired into the nature and cause of wealth of Nations".

b- Welfare definition of Alfred Marshall (the Neo-Classical era):
"Economics is the study of man in the ordinary business of life".

Wealth Definition of Economics
Welfare Definition of Economics

15

Different Definitions Of Economics

WEALTH DEFINITION
WELFARE DEFINITION
SCARCITY DEFINITION
GROWTH DEFINITION

33

Lecture 1
11-4-2- B- GOODS -2-

Private Goods
They're excludable goods. The consumer cannot use them without paying for them. They are also rival goods, which reduce availability for other consumers, resulting in rivalry.

Common Goods
They are non-excludable goods, so everyone can use them without paying. They are rival.

Public Goods
Public goods are non-excludable and non-rival. They are available to everyone and are not in danger of running out.

Club Goods
They are subtypes of public goods that are excludable but non-rivalous.

the goods

Lecture 2

Chapter 2: Demand and Supply in a context of a Market Economy

52

Lecture 2 IV- Movements and shifts along supply and demand curves -3-

IV-1- Movements along curves

- A movement along the supply curve means that the supply relationship remains constant.
- Therefore, a movement along the supply curve will occur when the price of the good changes and the quantity supplied changes in accordance to the original supply relationship.
- In other words, a **movement** occurs when a **change** in quantity supplied is caused only by a change in price, and vice versa.

53

Lecture 2 IV- Movements and shifts along supply and demand curves -3-

IV-2- Shift along curves

- A **shift** in a demand or supply curve occurs when a good's quantity demanded or supplied changes even though the price remains the same.
- Shifts in the demand curve imply that the original demand relationship has changed, meaning that quantity demanded is affected by a factor other than price.

54

Lecture 2 IV- Movements and shifts along supply and demand curves -3-

IV-2-1- Shift in Supply

Change in supply refers to a **shift**, either to the left or right, in the entire price-quantity relationship that defines a supply curve.

Essentially, a change in supply is an increase or decrease in the quantity supplied that is paired with a higher or lower supply price.

55

Lecture 2 IV- Movements and shifts along supply and demand curves -4-

IV-2-2- Factors that shift supply curves

Factors that shift supply curves left or "in":

1. A decrease in production
2. A decrease in technology
3. An increase in input costs
4. An increase in the price of a related output

Factors that shift supply curves right or "out":

1. An increase in production
2. An increase in technology
3. A decrease in input costs
4. A decrease in the price of a related output

51

Lecture 2 IV- Movements and shifts along supply and demand curves

IV-1- Movements along curves

IV-2- Shift along curves

56

Lecture 2 IV- Movements and shifts along supply and demand curves -5-

57

Lecture 2 IV- Movements and shifts along supply and demand curves -6-

IV-2-2 Shift in Demand

A shift in demand means that at any price (and at every price), the quantity demanded will be different than it was before.

Following is an example of a shift in demand due to an income increase.

58

Lecture 2 IV- Movements and shifts along supply and demand curves -7-

59

Lecture 2 IV- Movements and shifts along supply and demand curves -8-

Factors that Shift the Demand Curve

1. Five Principle Factors
2. Changes in the price of related goods or services
3. Changes in income
4. Changes in tastes
5. Changes in expectations
6. Changes in the number of consumers

Factors that Shift the Supply Curve

1. Five Factors
2. Changes in input prices
3. Changes in technology
4. Changes in the number of producers
5. Changes in the price of related goods or services
6. Changes in the number of producers

Chapter 3:

The consumer behaviour

Lecture 3

4

Lecture 3
1-3- Consumer Preferences, Utility and Ranking

1-1- Revealed Preference Theory:
The **Revealed Preference Theory** is economics, it is a theory, introduced by the American economist Paul Samuelson in 1939, and it holds that consumers' preferences can be revealed by what they purchase under different circumstances, particularly under different income and price circumstances.

* It's represented by a specific combination of goods and services.

Professor of Donald Watson

8

Lecture 3
1-3- Consumer Preferences, Utility and Ranking

1-1- Ranking

- Ordinal Ranking:** baskets are ordered or compared to each other without any quantitative information or intensity of preference.
- The **ordinal rankings** tell the order of how things are set, they **show the position in the rank of something**.
- I like dogs more than cats.
- Cardinal Ranking:** baskets are quantitatively compared. The **cardinal numbers** are **used for counting**.
- I like dogs ten times more than cat.

CARDINAL

18

Lecture 3
1-4- Indifference Curves

1-4-1- Properties of Indifference curves:

- Completeness:** each basket lies on only one indifference curve.
- Transitivity:** Indifference Curves do not cross.
- Thin curves:** Indifference Curves are not "thick".
- Negative Slope:** when a consumer likes both goods (dogs and cats), the indifference curve is downward sloping. The consumer's preferences are **normal**.

What are the properties of indifference curve?

20

Lecture 3
1-5- The Marginal Rate of Substitution

- The **Marginal Rate of Substitution (MRS)** is the change (loss) in one good needed to offset the change (gain) in another good.
- In this case, MRS is the trade-off (loss) of y for a small increase in x.

$$|MRS_{xy}| = dy/dx = MU_y/MU_x$$

21



22

Lecture 3
1-5- The Marginal Rate of Substitution

What is the Marginal Rate of Substitution?

x is gained, so how much y must be given up, alternatively, if x is given up, how much y can we get?

* The MRS is equal to the **slope** of the indifference curve (slope of the tangent to the indifference curve).

23

Lecture 3
1-5- The Marginal Rate of Substitution

- All along an individual's indifference curve, an individual consumes different baskets of goods while remaining at the same utility.
- The individual is willing to **substitute** to use something or someone instead of another thing or one good for another.
- An individual must be compensated by an increase in one good if the other good decreases.

24

Lecture 3
1-6- The Marginal Rate of Substitution

Indifference Curve Analysis

Indifference Curve:

- A combination defines the utility level of two goods that gives a consumer the same level of satisfaction.

Marginal Rate of Substitution:

- The rate at which a consumer is willing to substitute one good for another and stay at the same utility level.

Lecture 3

Chapter 3:

The consumer behaviour

25

Lecture 3
1-6- The Marginal Rate of Substitution -5-

Cantaloupes/quantities	Oranges/quantities	Apples/quantities	Substitution
1	20	1	$\frac{\Delta \text{Oranges}}{\Delta \text{Apples}} = \frac{20-0}{1-0} = 20$
2	15	1	$\frac{\Delta \text{Oranges}}{\Delta \text{Apples}} = \frac{15-20}{1-0} = -5$
3	10	1	$\frac{\Delta \text{Oranges}}{\Delta \text{Apples}} = \frac{10-15}{1-0} = -5$
4	5	1	$\frac{\Delta \text{Oranges}}{\Delta \text{Apples}} = \frac{5-10}{1-0} = -5$
5	0	1	$\frac{\Delta \text{Oranges}}{\Delta \text{Apples}} = \frac{0-5}{1-0} = -5$

EXAMPLE

30

Lecture 3
II-3- Assumptions of Law of Demand

Basic Assumptions of Law of Demand

1. No Change in the Income.
2. No Change in Size and Composition of Population.
3. No Change in Prices of Related Goods.
4. No Change in Consumer's Taste, Preference, etc.
5. No Expectation of a Price Change in Future.
6. No Change in the Climatic Conditions.

31

Lecture 3
II-4- Demand Curve

The Demand curve represents the quantities of a good a consumer is willing and able to buy at alternative prices in a given time period, ceteris paribus.

32

Lecture 3
II-5- Changes in Income

Income is a determinant of demand.

The income elasticity of demand is calculated as:

$$\text{Income Elasticity of Demand} = \frac{\text{Percentage Change in Quantity Demanded}}{\text{Percentage Change in Income}}$$

33

Lecture 3
III- Elasticity

III-1- Price Elasticity

III-2- Elastic versus Inelastic Demand

III-2-1- Elastic Demand

III-2-2- Inelastic Demand

III-2-3- Unitary Elastic Demand

elasticity

33

Lecture 3
III- Elasticity

III-1- Price Elasticity of Demand

- The response of consumers to a change in price is measured by the price elasticity of demand.
- The price elasticity of demand is the percentage change in quantity demanded divided by the percentage change in price.

$$\text{Price elasticity (E)} = \frac{\text{percentage change in quantity demanded}}{\text{percentage change in price}}$$

34

Lecture 3
III- Elasticity

III-2- Elastic versus Inelastic Demand

III-2-1- Elastic Demand

III-2-2- Inelastic Demand

III-2-3- Unitary Elastic Demand

elasticity of Demand

35

Lecture 3
III- Elasticity

EXAMPLE

The price of popcorn goes up 20% and the quantity demanded goes down 10%.

The price elasticity of demand is:

$$\text{Price Elasticity of Demand} = \frac{\text{percentage change in quantity demanded}}{\text{percentage change in price}} = \frac{-10\%}{20\%} = -0.5$$

36

Lecture 3
III- Elasticity

III-2- Elastic versus Inelastic Demand

Demand can be elastic, unit elastic, or unitary elastic.

III-2-1- Elastic Demand: Consumer response is large relative to the change in price.

III-2-2- Inelastic Demand: Demand is inelastic if the absolute value of E is less than 1. In this case, consumers are not very responsive to price changes.

37

Lecture 3
III- Elasticity

III-2-3- Unitary Elastic Demand

Demand is unitary elastic if the absolute value of E equals 1.

The percentage change in quantity demanded is equal to the percentage change in price.

To know more about Elasticity, you can watch this video:

Watch Video

Lecture 4

Theory of consumer choice

17

Lecture 4

II- Different types of goods -1-

II-1- Necessities v/s Luxuries

Differences in price elasticity are explained by several factors:

- Whether the good is a **Necessity** or **Luxury**
- The Availability of Substitutes
- The Price Relative to Income

Thinking or Learning?

18

Lecture 4

II- Different types of goods -2-

II-1-1- Necessities

- A **necessity** is something you **absolutely must have, almost regardless of the price.**
- Some goods are so critical to our everyday life that we regard them as necessities.
- Demand for necessities is relatively inelastic.**
- Footgear and gasoline are examples of necessities.

Thinking or Learning?

19

Lecture 4

II- Different types of goods -3-

II-1-2- Luxuries

- A **luxury good** is something we'd like to have but aren't likely to buy unless our income jumps or the price declines sharply.
- It is something that would be nice to have, but it's **not necessary**.
- Demand for luxury goods is relatively elastic.**
- Vacation travel and diamonds are examples of luxury goods.

Thinking or Learning?

20

Lecture 4

II- Different types of goods -4-

- Some goods are so critical to our everyday life that we regard them as **necessities**.
- Demand for necessities is **relatively inelastic**.
- Luxury goods** are something we'd like to have but aren't likely to buy unless our income jumps or the price declines sharply.
- Demand for luxury goods is **relatively elastic**.

Thinking or Learning?

27

Lecture 4

II- Different types of goods -11-

II-3- Price Relative to Income

- If the **price** of a product is **very high** relative to the consumer's income, the **demand** will tend to be **elastic**.
- If the **price** of a product is **very low** relative to the consumer's income, the **demand** will tend to be **inelastic**.

Thinking or Learning?

33

Lecture 4

IV- Impact of Income on Consumer Choices

IV-1- Income from a Consumer Theory Perspective

IV-2- Effects of Income on Different Goods

34

Lecture 4

IV- Impact of Income on Consumer Choices -1-

- Consumer choices are predicated on strict economic circumstances, and recognizing the relationship between these circumstances and an individual's purchasing behavior allows economists to anticipate and predict consumer choice trends.
- One of the **central assumptions in a consumer's** is dividing up their purchasing behavior into **three overall income** to **spend** and then their **spending** to **spend**.
- These **budgetary constraints**, when applied to a series of products and services, can be optimized to capture the most utility for the consumer based on their purchasing power.

Thinking or Learning?

35

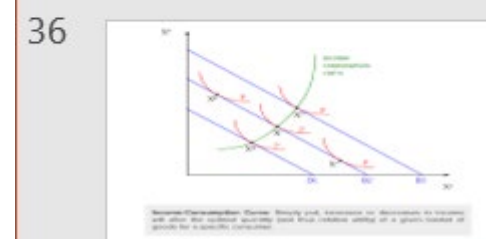
Lecture 4

IV- Impact of Income on Consumer Choices -2-

IV-1- Income from a Consumer Theory Perspective

- The simplest way to demonstrate the effects of income on overall consumer choice, from the viewpoint of Consumer Theory, is via an income-consumption curve for a normal good.
- The basic premise behind this curve is that the varying income levels (as illustrated by the given income line curving upwards) will determine different quantities and bundles of goods along the provided indifference curves for the two goods being compared in the graph.
- These differences in quantity reflect the increase or decrease in a given individual's purchasing power; thus, the income effect could be considered as the increase in relative utility captured by a consumer with more discretionary power.

Thinking or Learning?



37

Lecture 4

IV- Impact of Income on Consumer Choices

- The **wealth effect** differs slightly from the **income effect**.
- In fact, the **wealth effect** reflects changes in consumer choice based on **personal wealth**, not actual income.

For example, if a person owns a stock that appreciates in price, they perceive that they are wealthier and may spend more, even though they have not realized their gain so their income has not increased.

Thinking or Learning?

38

Lecture 4

IV- Impact of Income on Consumer Choices -3-

II-3- Effects of Income on Different Goods

- Income effects** on consumer choice grow more complex in the type of good changes, as different product and services demonstrate different properties relative to both other products/services and a consumer's preferences and utility.
- As a result, it is useful to outline the differences in income effects on **normal**, **inferior**, **complementary** and **substitute** goods.

Thinking or Learning?

39

Lecture 4

IV- Impact of Income on Consumer Choices -4-

Normal good

A normal good is a good with an increase in utility as quantity changes, demonstrating a predictable and simple linear relationship as income increases or decreases, demonstrating a graphical representation of the effects of income changes upon preference maps.

Inferior good

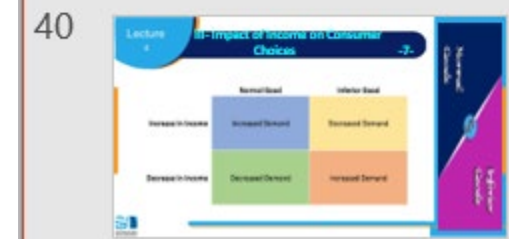
Inferior goods, or goods that are less preferable, will demonstrate these relationships with income compared to normal goods.

That is to say that an increase in income will not necessarily result in an increase in quantity for the inferior good; in the consumer's opinion, spending utility in purchasing the inferior good compared to other goods.

Inferior goods are often verified as income rises and consumers gain more discretionary power.

This can be represented in:

Thinking or Learning?



Lecture 4

Theory of consumer choice

41

Lecture 4
III- Impact of Income on Consumer Choices

Complementary goods
Complementary goods are goods that are interdependent in consumption, or essentially goods that require simultaneous consumption by the consumer. An example of this would be the purchasing of an automobile and car insurance; the consumption of one requires the consumption of the other. As income increases, these will increase relative to one another (as a ratio), demonstrating this concept in graphical form.

Substitute goods
Perfect substitutes are essentially interchangeable goods, where the consumption of one compared to another has no meaningful impact on the consumer's utility derived. Substitutes are goods that a consumer cannot differentiate between in terms of the need being filled and the satisfaction obtained. Income increases will thus affect the consumption of these goods interchangeably, resulting in increase in the quantity of either or both.



42

Lecture 4
III- Impact of Income on Consumer Choices

	Complement	Substitute
Increase in Price	Decreased Demand	Increased Demand
Decrease in Price	Increased Demand	Decreased Demand



43

Lecture 4
IV- Impact of Income on Consumer Choices

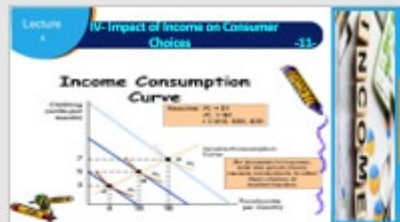
- In merging Consumer Theory and consumer choices with income level, the primary takeaway is that as income or income will increase the prospective utility that consumer can acquire in the market.
- Understanding how this applies in a general fashion, alongside the specific circumstances dictating specific type of goods, it becomes fairly straightforward to predict consumer purchasing behavior at differing income levels.



44

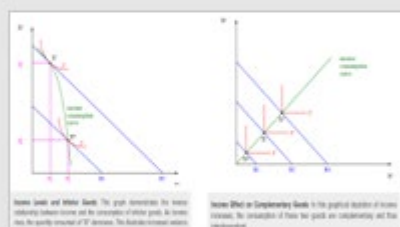
Lecture 4
IV- Impact of Income on Consumer Choices

Income Consumption Curve



45

Income (Y-axis) and Utility (X-axis)
The graph illustrates the relationship between income and utility. As income increases, the quantity of goods consumed also increases, leading to higher utility levels. The graph shows the effect of income changes on the consumer's choice.



46

Lecture 4
V- Impact of Price on Consumer Choices

V.1- Deriving Overall Demand

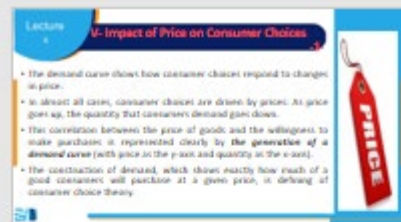
V.2- Price Elasticity



47

Lecture 4
V- Impact of Price on Consumer Choices

- The demand curve shows how consumer choices respond to changes in price.
- In almost all cases, consumer choices are driven by prices. As price goes up, the quantity that consumers demand goes down.
- The correlation between the price of goods and the willingness to make purchases is represented clearly by the generation of a demand curve (with price on the y-axis and quantity on the x-axis).
- The construction of demand, which shows exactly how much of a good consumers will purchase at a given price, is deriving of consumer choice theory.

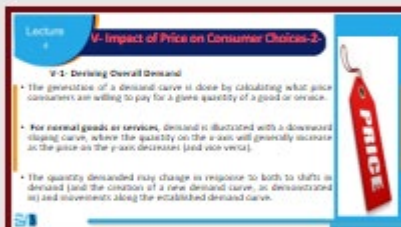


48

Lecture 4
V- Impact of Price on Consumer Choices-2

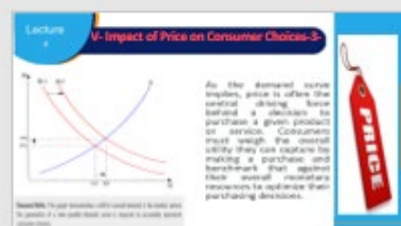
V.1- Deriving Overall Demand

- The generation of a demand curve is done by calculating what price consumers are willing to pay for a given quantity of a good or service.
- For normal goods or services, demand is illustrated with a downward sloping curve, where the quantity on the x-axis will generally increase as the price on the y-axis decreases (and vice versa).
- The quantity demanded may change in response to both to shifts in demand (and the creation of a new demand curve, so demonstrated) as well as movements along the established demand curve.



49

Lecture 4
V- Impact of Price on Consumer Choices-3

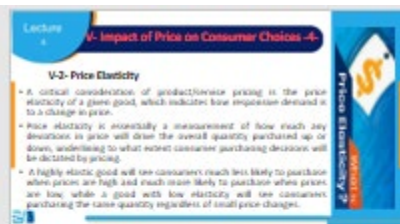


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Lecture 4
V- Impact of Price on Consumer Choices-4

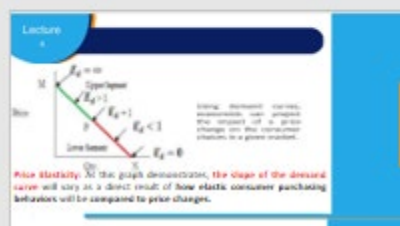
V.3- Price Elasticity

- A critical consideration of production pricing is the price elasticity of a given good, which indicates how responsive demand is to a change in price.
- Price elasticity is essentially a measurement of how much any deviation in price will alter the overall quantity purchased up or down, underlining to what extent consumer purchasing decisions will be dictated by pricing.
- A highly elastic good will see consumers much less likely to purchase when prices are high and much more likely to purchase when prices are low, while a good with low elasticity will see consumers purchasing the same quantity regardless of small price changes.



51

Lecture 4



Price Elasticity: In the graph demonstration, the slope of the demand curve will vary as a direct result of how elastic consumer purchasing behaviors will be compared to price changes.

Lecture 5

Chapter 5: The Theory of the Firm

31

Lecture 5

III- THE Costs

Costs

- Total Costs
- Average Costs
- Marginal Costs
- Fixed Costs
- Variable Costs

32

Lecture 5

III- THE Costs

- In buying factor inputs, the firm will incur costs.
- Costs are classified as:
 - Fixed costs (FC):** costs that are not related directly to production such as rent, taxes, insurance costs, admin costs. They can change but not in relation to output.
 - Variable Costs (VC):** costs directly related to variations in output. Rise outwards proportionally.

33

Lecture 5

III- THE Costs

Total Cost
The sum of all costs incurred in production
 $TC = FC + VC$

Average Cost
the cost per unit of output
 $AC = TC/Q$

Marginal Cost
the cost of one more or one fewer units of production
 $MC = \Delta TC = \Delta VC / \Delta Q$

34

Lecture 5

III- THE COSTS

- Short-run:** Diminishing marginal returns results from adding successive quantities of variable factor to a fixed factor.
- Long-run:** Changes in Production Factor Productivity. How much does the quantity of Q change, when the quantity of L is increased?
- Long-run:** Changes in Production Returns to Scale. How much does the quantity of Q change, when the quantity of both L and K is increased?

35

Lecture 5

IV- The Revenue

Revenue

- Total Revenue
- Average Revenue
- Marginal Revenue

36

Lecture 5

IV- The Revenue

- Revenue** is the income a firm obtains from selling its products since it has paid indirect tax, such as VAT.
- Revenue provides the income which a firm needs to enable it to cover its costs of production, and from which it can derive a **profit**.
- Profit** can be distributed to the owners, or shareholders, or retained in the business to purchase new capital assets or upgrade the firm's technology.

37

Lecture 5

IV- The Revenue

Revenue is measured in three ways:

- Total revenue:** the total amount received from selling a given output
 $TR = Q \times (P_n + Q_n)$
- Average Revenue:** the average amount received from selling each unit
 $AR = TR / Q$
- Marginal revenue:** the amount received from selling one extra unit of output
 $MR = TR_n - TR_{n-1} = \Delta TR / \Delta Q$

38

Lecture 5

IV- The Revenue

Revenue

Total Revenue (TR) = Q × P
Average Revenue (AR) = TR / Q
Marginal Revenue (MR) = ΔTR / ΔQ

42

Lecture 5

V- The Profit

Normal Profit
The minimum amount required to keep a firm in the current line of production

Abnormal or Supernormal Profit
It's the Profit made over and above normal Profit.

Sub-normal Profit
It's the Profit below the normal Profit.

Lecture 6

Chapter 6:

Business Economics and Quantitative Techniques

14

Lecture 6
I- The Production Function in Short and Long Run

1-2- The Stages of the Product Curve

- The total product curve in (a) shows the output produced for different amounts of labor input.
- The average and marginal products in (b) can be obtained (using the data in table 6.1) from the total product curve.
- At point A in (a), the marginal product is 20 because the tangent to the total product curve has a slope of 20.
- At point B in (a) the average product of labor is 20, which is the slope of the line from the origin to A.
- The average product of labor at point C in (a) is given by the slope of the line BC.

15

Lecture 6
I- PRODUCTION WITH ONE VARIABLE INPUT (LABOUR)

To the left of point A in (b), the marginal product is above the average product and the average is increasing. To the right of A, the marginal product is below the average product and the average is decreasing. As a result, A represents the point at which the average and marginal products are equal, where the average product reaches its maximum. At Q, where total output is maximised, the slope of the tangent to the total product curve is 0, as is the marginal product.

28

Lecture 6
II- Law of variable proportion or short run production function

II-1- Definition

- This law is also called **the law of Proportionality**.
- The law states that change in output due to the change in any one input by the same rate.
- Leibnitz: "The law of variable proportion states that if the inputs of one resource is increased by equal increment per unit of time while the inputs of other resources are held constant, total output will increase, but beyond some point the resulting output increase will become smaller and smaller."

29

Lecture 6
II- Law of variable proportion or short run production function

"The law of variable proportion states that if a variable quantity of one resource is applied to a fixed amount of other inputs, output per unit of variable input will increase but beyond some point the resulting increase will be less and less and with total output reaching a maximum before it finally begins to decline."

30

Lecture 6
II- Law of variable proportion or short run production function

II-2- Assumptions of the Law of variable proportion

- The law is based on **no change in the technology**.
- All units of the variable factor are **homogeneous**.
- Only one factor is variable**, others remaining constant.
→ Only applicable under **short run**.
- The products are measured in physical units, example- quantity, tonnes etc.
- It is assumed that all variable factors are equally efficient.

34

Lecture 6
II- Law of variable proportion or short run production function

Example:

Units of variable input	TP	MP (TP/2)	AP (TP/4)	Stage
0	0	0	0	Stage 1
1	20	10	20	Stage 1
2	35	17.5	17.5	Stage 1
3	40	20	13.3	Stage 1
4	35	17.5	8.75	Stage 2
5	20	10	4	Stage 2
6	5	2.5	0.83	Stage 3
7	0	0	0	Stage 3

FOR EXAMPLE

37

Lecture 6
II- Law of variable proportion or short run production function

II-3- Applicability of the Law of Variable Proportions:

- The **law of variable proportions** is universal as it applies to all fields of production.
- This law applies to any field of production where some factors are fixed and others are variable.
- That is why it is called the law of universal application.

38

Lecture 6
II- Law of variable proportion or short run production function

- The main cause of application of this law is the fixity of any one factor.
- Land, mines, fisheries, and house building etc. are not the only examples of fixed factors.
- Machines, raw materials may also become fixed in the short period.
- Therefore, this law holds good in all activities of production etc. agriculture, mining, manufacturing industries.

39

Lecture 6
II- Law of variable proportion or short run production function

- Application to Agriculture**
With a view of raising agricultural production, labour and capital can be increased to any extent but not the land, being fixed factor. Thus when more and more units of variable factors like labour and capital are applied to a fixed factor (land) their marginal product starts to diminish and this law becomes operative.
- Application to Industries**
In order to increase production of manufactured goods, factors of production has to be increased. It can be increased as desired for a long period, being variable factors.
Thus, law of increasing returns operates in industries for a long period. But, this situation arises when additional units of labour, capital and other resources are added to a fixed factor (land) and this law becomes operative.

Lecture 7

Chapter 7:

The Market Structures in Economics: Perfect & Imperfect Competition

22

Lecture 7

II- The Market structures based on the number of sellers

b-Classification of Monopoly:

Monopolies are classified according to circumstances they arise from, that is, cost structure of the industry, possibly the result of law, or by other means.

Natural Monopoly	Legal Monopoly	Cartel Monopoly
It is a market situation where a single firm can supply the entire market due to the fundamental cost structure of the industry.	It is sometimes called as de jure monopoly, a form of monopoly which the government grants to a private individual or firm over the product or services.	It is a form of monopoly which exists as the sole producer and distributor of goods and services by means of cartel (legal or illegal), so that most of the time it violates the principle of free market just to avoid competition.

25

Lecture 7

a-Classification of Oligopoly

Pure or Perfect Oligopoly	Imperfect or Differentiated Oligopoly	Collusive Oligopoly	Non-collusive Oligopoly
If the firms produce homogeneous products.	If the firms produce differentiated products.	If the firms cooperate with each other in determining price or output or both.	If firms in an oligopoly market compete with each other.

Lecture 8

Chapter 8:

Introduction to Macroeconomics

14 ★

Lecture 8
I- What Is Macroeconomics?

Macroeconomic Theory

- describes and explains the **regularities** of macroeconomic processes and events;
- aims to **explain** macroeconomic phenomena;
- helps to understand the **cause-and-effect** relations in the aggregate economy;
- serves the base for elaboration of principles, tools and measures of macroeconomic policy that might prevent or improve economic performance and act as the best way over to the **welfare** of the society;
- provides the framework to make **forecasts** of future economic development; to **predict** future economic problems.

Macroeconomics represents a **fascinating intellectual occupation** that has **great practical importance**.

The Importance of Macroeconomics

15 ★

Lecture 8
I- What Is Macroeconomics?

- Why do **business** grow? Would our children live better than we do?
- Why are some countries richer than others? Why do some **countries** are growing faster than others?
- Why **recessions** and **expansions** occur in the economy?
- Why is there **unemployment**? Is it a necessary part of **Economic life**? Why unemployment is low in some countries and high in the others?
- Why **prices** grow? What is the cost of **inflation** for the society?
- Is it better for an Economy to have **budget deficit** or **budget surplus**? **Treasury deficit** or **Treasury surplus**? To be a leader in a **boom** or in the **World Financial Markets**?

Keynes' Approach: Basic Propositions

16 ★

Lecture 8
I- What Is Macroeconomics?

- Why interest Rates fluctuate? What impact have the changes in the **Money and Stock Markets** on the economy?
- What are the determinants of the **Exchange Rates**? Is it good to have a strong or a weak domestic currency?
- Is **Government Policy** able to affect long-term Economic growth? Can it eliminate or at least smooth Economic fluctuations during the **Business Cycle**?
- How Economic changes in one country affect the situation in others?

Answer: Study Macroeconomics and be informed!

Keynes' Approach: Basic Propositions

18 ★

Lecture 8
I- What Is Macroeconomics?

- Up to the **19th Century**, Macroeconomics didn't exist as a separate discipline.
- These events had the fundamental importance for the development of Macroeconomics:

1. The beginning of the collection of economic information and systematization of **aggregate data** (the period of the 1st World War) that provided the empirical base for Macroeconomic research.
2. The substantiation of the fact that the **Business Cycle** is a recurring phenomenon (1920s - Wesley Clair Mitchell)
3. The Great Depression (1929-1933), the **World Economic Catastrophe** (the Great Crash) that contradicted the postulates of Classical Economists about the **Self-Correcting Economy**.

The History of Macroeconomics

21 ★

Lecture 8
I- What Is Macroeconomics?

- The main economic problem is the **scarcity of resources**, which hence are fully used, and the economy is always at its **potential level of output**.
- The scarcity of resources poses the problem of production → the analysis of economy's behavior from **aggregate supply side** (**supply-side analysis**).
- The **short-run** acts in the economy; **supply creates its own demand**; because **both resources agents (household and firms) and a large**
- the problem of expanding of production possibilities is **emerging** slowly, the natural market adjustment is a long-term process → the description of economy's behavior is the **long run** (**long-run analysis**).

Classical School: Basic Propositions

22 ★

Lecture 8
I- What Is Macroeconomics?

The central point of Keynes' theory

- The Market Economy does not guarantee the economy's stability, and, therefore, to counteract **slumps** and **recessions** and high **unemployment** government should intervene in the economic performance and conduct the **stabilization policy**.
- During 25 years after the 2nd World War – the period of fast economic growth in most countries – the belief that government is able to prevent recessions by actively using **fiscal and monetary policy**.
- But in the middle of the 1970s – we had a high **inflation**, the combination of high inflation with stagnation, i.e. low and even negative rates of economic growth and high unemployment →

the conclusion: the key source of instability is the stabilization policy itself → **neoclassical counterrevolution**.

Keynes' Approach: Basic Propositions

23 ★

Lecture 8
I- What Is Macroeconomics?

- The **short** factor and the **long** factor are related to each other: 1) **shorter** effect and **shorter**; the **longer** effect is on the **money market** (rather than in the **labor** market or capital market).
- **Equilibrium** in the markets is reached **not just on the full-employment level**.
- **Factor price** equilibrium are stable to provide the level of aggregate demand required to obtain the potential level of output, and, therefore, **government intervention** and **government regulation** is needed.
- **Government** stabilization policy affects economy in the short-run, and price rigidity, which relatively for not long period in the description of the economy's behavior in the **short run** (production decisions).

Keynes' Approach: Basic Propositions

24 ★

Lecture 8
I- What Is Macroeconomics?

Macroeconomics as a science is permanently developing → changes concern both the cause of events and problems under study and of answers and remedies proposed.

These changes are the result of the impact of two groups of factors:

- The appearance of new theories, while old theories are rejected as not consistent with economic reality or as outdated in the light of new concepts.
- The permanent development of the economy itself, that poses new questions and requires new answers.

Development of Macroeconomics

25 ★

Lecture 8
I- What Is Macroeconomics?

- The diversity of Approaches to the explanation of macroeconomic events and especially problems of macroeconomic policy is caused by the fact that different groups of macroeconomists construct their theories by using different assumptions, may differently interpret the same events, and therefore, come to different theoretical and practical conclusions and give different political recommendations.
- This diversity of ideas is due to the complexity of macroeconomic problems and allows to examine them comprehensively, thoroughly and from different points of view.

Diversity of Macroeconomic Theories

29 ★

Lecture 8
III- Principles of Macroeconomic Analysis

Macroeconomics is the social science and the controlled experiment is impossible. Besides, economic phenomena are very complex. That's why economists use models.

Economic model is a stylized representation of the economy, a generalization and abstraction of reality that seeks to isolate a few of the most important determinants (causes) of an economic event in order to provide a better understanding of that event.

Economic models are constructed and used:

- to simplify the analysis of complex economic reality;
- to examine the relationship between economic phenomena and the regularity of their development;
- to understand what goes on in the economy and how the economy works;
- to develop policies that might prevent, correct, or alleviate economic problems and improve the situation in the economy;
- to forecast the development of economic process.

Lecture 9

Chapter 9:

The National Income Accounting

31



Lecture 9
IV- GDP vs. GNP

IV-1- The GDP Deflator

- The **GDP deflator** is a measure of the overall level of prices.
- Definition:

$$\text{GDP deflator} = 100 \times \frac{\text{nominal GDP}}{\text{real GDP}}$$

- One way to measure the **economy's inflation rate** is to compute the percentage increase in the GDP deflator from one year to the next.

32



Lecture 9
IV- GDP vs. GNP

Example:

year	Nominal GDP	Real GDP	GDP Deflator
2005	\$8000	\$8000	100.0
2006	\$8250	\$7500	110.0
2007	\$10,000	\$8400	120.0

Compute the GDP deflator in each year:

2005: $100 \times (\$8000/\$8000) = 100.0$

2006: $100 \times (\$8250/\$7500) = 110.0$

2007: $100 \times (\$10,000/\$8400) = 120.0$

ACTIVE LEARNING
Computing GDP

36

Lecture 9
V- GDP per capita and the PPP

V-1- What is under control in PPP GDP per capita measurement

- Differences in currencies among countries
- Differences in prices among countries

37

Lecture 9
V- GDP per capita and the PPP

V-1- What is NOT under control in PPP GDP per capita measurement

- Division of income in the society.
- Non-official production**: **underground economy transactions** that do not take place in organized markets.
- Negative externalities of production** (cost when individuals bear a portion of the cost associated with a good's production without having any influence over the related production decisions).

38

Lecture 9
VI-Net National Product (NNP) vs National Income (NI)

V-1- The Net National Product (NNP)

- The **Net National Product (NNP)** is Gross National Product (GNP), the total value of finished goods and services produced by a country's citizens overseas and domestically, **minus depreciation**.

$$\text{NNP} = \text{GNP} - \text{depreciation}$$

- Depreciation** is the estimate of the amount of capital (measured in terms of the economy) that will wear out or will be used up in producing GNP.

39

Lecture 9
VI-Net National Product (NNP) vs National Income (NI)

V-2- The National Income (NI)

$$\text{NI} = \text{NNP} - \text{indirect taxes}$$

Indirect taxes are subtracted because they have no equivalent in production.

Direct taxes: taxes put on income directly (income taxes)

Indirect taxes: taxes put on income indirectly (sales and excise taxes)

Some Economic Measurements

بالنسبة للدرس 10 الاعتماد على الدرس في شكل ال-pdf

16

Lecture 10
I-3 - INVESTMENTS

- **Borrowing** is often confused with investing, but they are not the same.
- Although most people think of purchases of **stocks** and **bonds** as investments, **investments** with the term "INVESTMENT" to denote **additions to the real stock of capital goods, factories, equipment...**



Stock
invest

Stocks are securities that represent a share of ownership in a company.



Bond
invest

Bonds are securities that represent a loan made to a company or government.

19

Lecture 10
I-3 - INVESTMENTS

- **Leverage** (Borrowing) is the best place to invest, because it's **returning you double**. High, so, the high amount you put, the **more profit** you give from your share or stock.
- **Borrow** invest in that flow or thing where rate of return or profitability in future is high.

Fixed Investment = is spending on **non-capital machinery** and **fixed construction, housing, vehicles**, etc.

Working Capital = is spending on **stocky inventories of finished goods and raw materials**. The accumulation of stocks by firms, whether voluntary or involuntary, is counted as investment.



23

Lecture 10
II- The UNEMPLOYMENT

Groups in the Labour Market

```

graph TD
    A[Working age population] --> B[Labour force]
    A --> C[Not in the labour force]
    B --> D[Unemployed]
    B --> E[Employed]
    E --> F[Employed part-time]
    E --> G[Employed full-time]
    C --> H[Retired]
    C --> I[Not looking for other reasons]
    I --> J[Household member]
    I --> K[Student]
        
```

24

Lecture 10
II- The UNEMPLOYMENT

Structural unemployment	Frictional unemployment	Seasonal unemployment	Cyclical unemployment
Occurs when people change jobs, get laid off from their current jobs, take some time to find the right job after their skills have eroded, or take time off from working for a variety of other reasons.	Occurs when workers' skills do not match the jobs that are available. Technological advances are one cause of structural unemployment.	Occurs when industries close or shut down for a season or have production ebbs and flows.	Unemployment that rises during economic downturns and falls when the economy improves.

S- The Human Development

A. The Millennium Development Goals (MDGs)

- The United Nations **Millennium Development Goals (MDGs)** are 8 goals that UN Member States have agreed to try to achieve by the year 2015.
- The United Nations Millennium Declaration, signed in September 2000, demands several leaders to combat poverty, hunger, disease, illiteracy, environmental degradation, and [unsustainable resource use](#).
- The **MDGs** were derived from this Declaration. Each MDG had targets set for 2015.
- Several of those **relate directly to health**.

The MDGs have been superseded by the Sustainable Development Goals

41

 1 Eradicate extreme poverty and hunger	 2 Achieve universal primary education	 3 Promote gender equality and empower women	 4 Reduce child mortality
 5 Improve maternal health	 6 Combat HIV/AIDS, malaria and other diseases	 7 Ensure environmental sustainability	 8 Develop a global partnership for development

42

[illegible]

الحسابات التي ستكون في الامتحان

- GDP: Product approach
- GDP: Real / Nominal
- Marginality



جهزوا آلات حاسبة

حظ سعيد

