UNIT 1
CONCEPT AND SCOPE OF ECONOMICS

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UNIT 1: CONCEPT AND SCOPE OF ECONOMICS

1.1 Economics as a social science (Pindyck → 1.1)

- ❑ Economics as science.
- ❑ Key questions of economics.
- ❑ Fields of study in economics

1.2 The method of economic science (Pindyck → 1.1)

- ❑ Theories and models
- ❑ Types of variables
- ❑ Types of economic data

1.3 Basic elements of Microeconomics (Pindyck → 1.1, 1.2 y 1.4)

- ❑ The aim of microeconomics
- ❑ Economic agents
- ❑ The rationality principle
- ❑ The equilibrium principle

1.4 The organization of economic activity (Pindyck → 1.2 y 1.3)

- ❑ The systems of economic organization
- ❑ Markets
- ❑ The role of prices in the economy

1.1 Economics as a social science

- Economics is a **SOCIAL SCIENCE,** which, like other sciences, is concerned with the explanation and prediction of observed phenomena. Economics studies the way in which societies solve the fundamental problem of reconciling *unlimited desires* of individuals with *scarce resources,* susceptible to numerous alternative uses.
- Social sciences and natural sciences:
  - Social sciences study the behavior of individuals and of society.
  - Natural sciences study the phenomena of nature.
- It is a science because it uses the scientific method in its explanations, which consists of observing reality and presenting questions and problems to arrive at the formulation of theories and models.

1.1 Economics as a social science

- Resources are used for the production of goods and services (land, work, capital, technology)
- **Characteristics of resources:**
  1. **Scarce:** there are not sufficient resources to supply all of the possible desires and needs of individuals.
  2. **Multi-use:** Resources can have more than one possible use. For example a plot of land can be used to plant coffee or to build a factory.
  3. **Partially replaceable:** In certain circumstances, one resource can replace another in the production of a good or service (e.g., replace manual labor with technology).

Scarce resources and unlimited desires → Scarcity

Scarcity and alternative uses → Choice

Choice → Opportunity cost

1.1 Economics as a social science

- **There are two basic economic approaches:**
  - **<u>Positive analysis</u>**: Concentrating on the explanation and prediction of events (describe cause-effect relationships).
  - **<u>Normative analysis</u>**: Attempts to go beyond explanation and prediction and focus on what should be

  There is general agreement when an analysis of reality using available data is done (positive analysis). Nevertheless, normative economics is closely related to politics and government intervention, so that disagreements arise.

- **There are two main economic fields:**
  - **Microeconomics:** studies the behavior of individual economic units and the functioning of markets.
  - **Macroeconomics:** studies the functioning of economics as an aggregate (production, employment, inflation…)

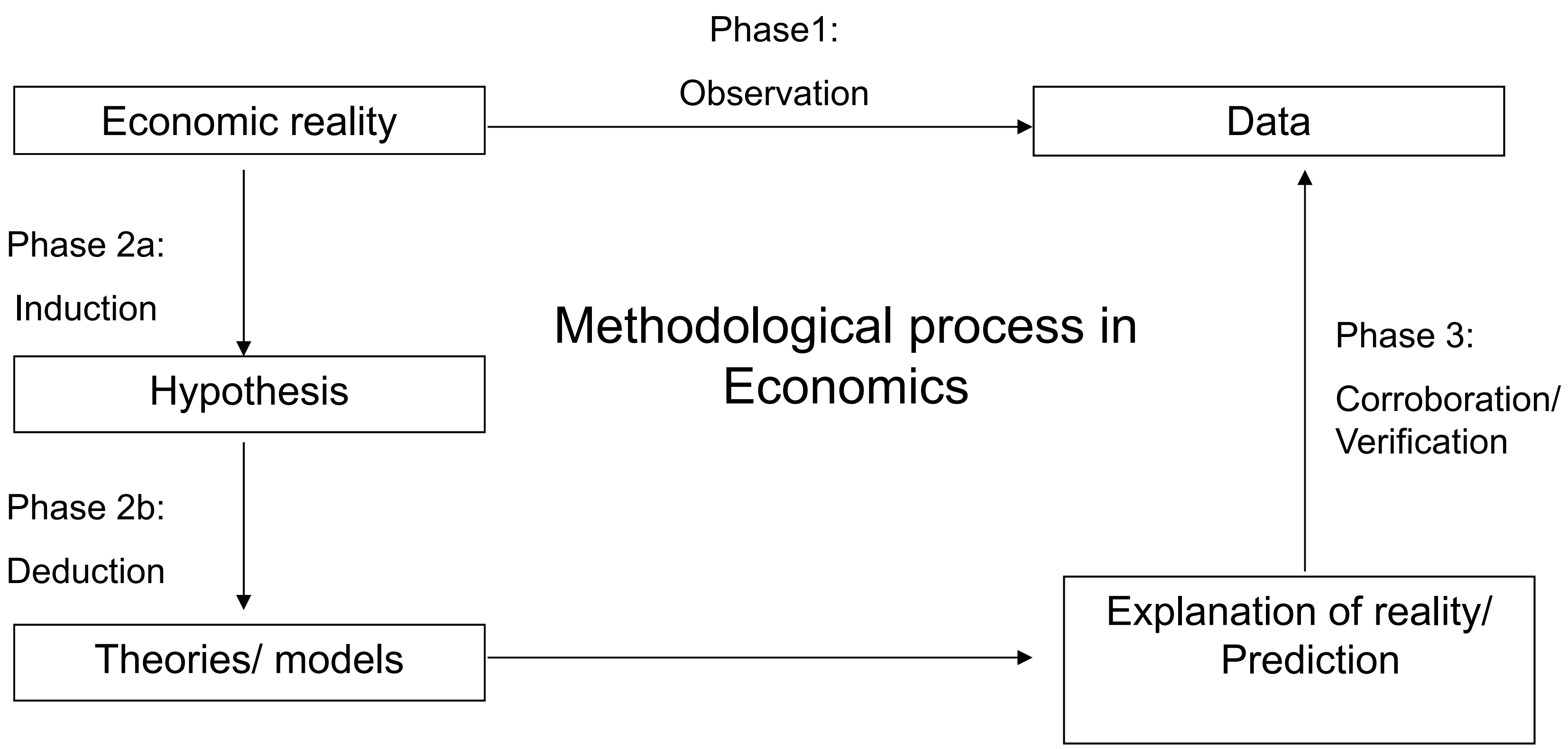
1.1 Economics as a social science

Microeconomics
- Study of markets of good and services
- Focus of the behaviour of individual agents

Macroeconomics
- Study the economy as a whole
- Focus on aggregate indicators

1.2 The method of Economics

- Economics uses the scientific method, which consists of observing reality, and suggesting questions and problems that allow the formulation of theories and models.
- CONCEPTS: Theories and models / Types of economic data / Types of economic variables



1.2 The method of Economics8

- Theories and models are simplified descriptions of rea888lity
  - **Theories:** Explain phenomena observed by means of a group of rules and basic assumptions.
    - Their utility depends on their capacity to explain and predict the phenomena under study
    - They are tested with the help of statistics and econometrics. As a result of this process, the theories are accepted, modified or rejected.
  - **Models:** are mathematical representations, based on a theory, of the behavior of one or more agents

- The theories and models connect economic variables and their verification requires the use of economic data
  - **Economic variable :** All factors that influence decisions related to fundamental economic problems or that describe the impact of these decisions
  - **Economic data:** Quantification of the economic variables

1.2 The method of Economics

- **Types of variables:**

a) Stock/Flow

b) Stock: Referring to a specific moment in time. Static picture of a situation of reference

Flow: Referring to evolution over time

b) Endogenous/ Exogenous

Endogenous: Unknown variables that we want to predict, based on other known variables

Exogenous: Known variables that serve to explain the endogenous variable

c) Nominal/Real

Nominal: Measured in current monetary units for the periood studied

Real: Measured in fixed value monetary units for a specific period designated as base

1.2 The method of Economics

- **Types of data**

a) Temporal series:

Referring to the same variable in different time periods

b) Transversal cross-section:

Referring to the same variable in the same time period for different economic units

c) Panel data:

Referring to the same variable for various economic units and various time periods

1.3 Basic elements of Microeconomics

- The objective of microeconomics
- The economic agents
- The principle of rationality
- The principle of equilibrium

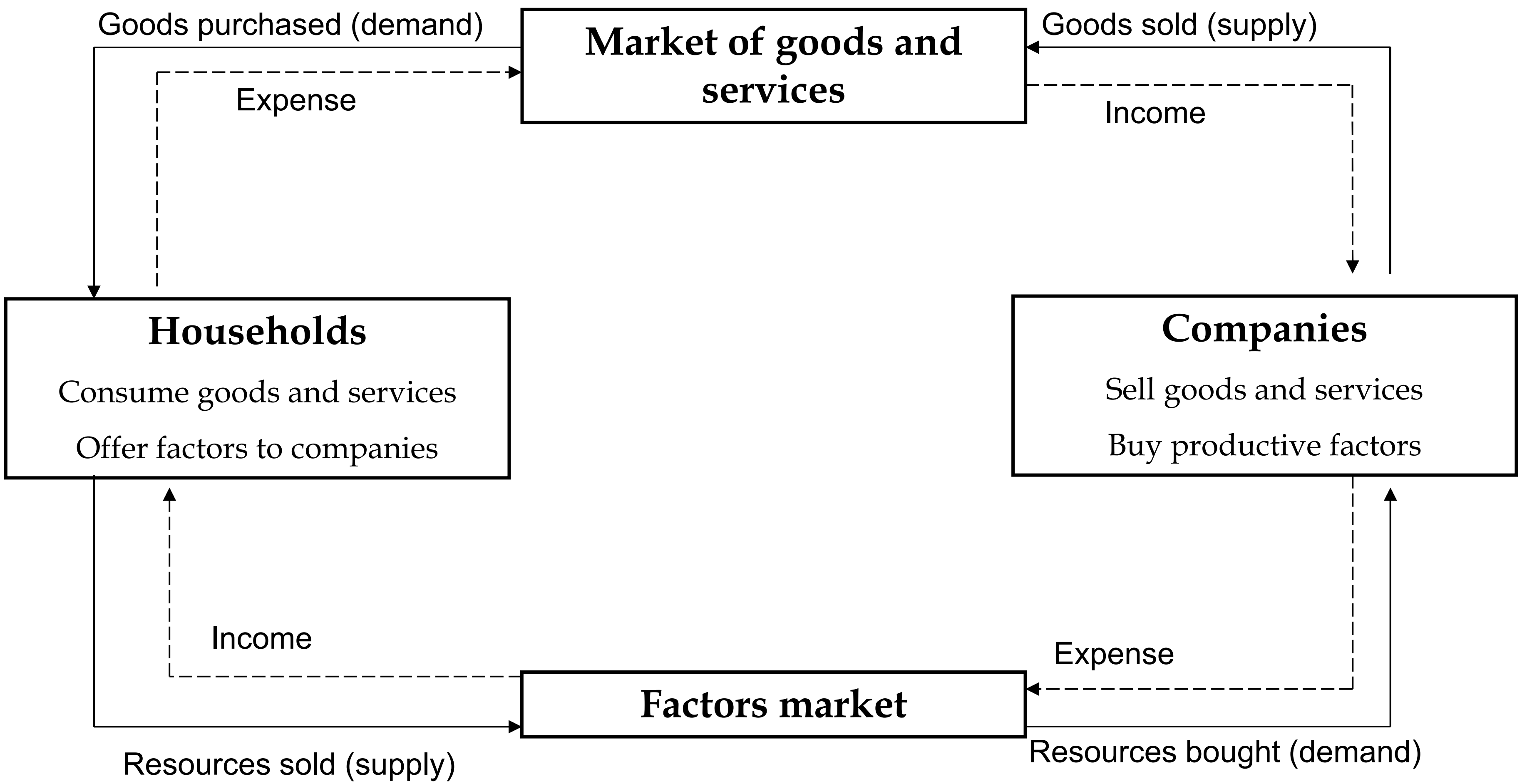
1.3 Basic elements of Microeconomics

- **The objective of Microeconomics:**
  - Study the behavior of individual economic units and the functioning of markets.
  - Explain how and why these units make economic decisions.
- **Economic agents**:
  - **Consumers**
    - Consume goods and services /offer production factors
    - Maximize utility
  - **Producers**
    - Produce goods / demand productive factors
    - Maximize profit
  - **The public sector**
    - Attempts to maximize the well-being of society
- The agents interact among themselves in a specific territorial, social, natural and/or cultural framework that determines their relationships → Market

1.3 Basic elements of Microeconomics

Closed economy / Absence of the public sector

Circular flow of income



1.3 Basic elements of Microeconomics

- **Starting point: Supply and demand**
- **Theory of consumption DEMAND**
  - Analysis of the way in which consumers maximize their utility based on their preferences, selecting certain goods over others, according to the budget restriction
- **Theory of production SUPPLY**
  - Analysis of the way in which companies decide how much to produce and in what way (with more workers, buying more machines, open more factories…) in order to maximize their profit

1.3 Basic elements of Microeconomics

❑ The principle of rationality

- Agents act rationally, that is to say, they choose the best alternative among all those available (maximizing utility or profit, given its restrictions)

❑ The principle of equilibrium

- ➢ For an agent: an agent is in equilibrium if he/she satisfies his/her rule of behavior (e.g. maximizing utility or profit), given its restrictions
- ➢ For a model of various agents: The results are in equilibrium when:

  i) All the agents are in equilibrium

  ii) The decisions of all the agents are compatible

The analysis of equilibrium can be on various levels

- ➢ General/Partial: all ecoomic agents are considered/a group of economic agents are considered in a specific part of the economy
- ➢ Long term/short term: agents can/cannot modify all the variables under their control

1.4 The organization of economic activity

- Systems of economic organization
- Markets
- The role of prices in the economy

1.4 The organization of economic activity

The systems of economic organization: depend on the answers to the following three key questions:

What to produce? How to produce? For whom to produce?

- **Central Economy:** decisions are completely centralized by a planner (The State).
- **Market Economy:** decisions are taken by all consumers and by all companies, independently. Decisions are coordinated through market prices.
- **Mixed Economy:** The State and the private sector take decisions within the limits established by law.
  - The importance of each one will determine the degree of intervention in the economy.
  - The dominant system in most developed countries, although the correction of market failures is needed (e.g, public goods,…).

1.4 The organization of economic activity

- **Markets:** Group of buyers and sellers who, by interacting, determine the price of a product
  - **Perfectly competitive market**: many buyers and sellers, so that no one of them significantly influences the price → Perfect competition
  - **Non-competitive market**: sellers or buyers influence the price (it is said that they have market power) → Imperfect competition

Type of product → Nº of sellers ↓	**Homogenous**	**Differentiated**
Many	Perfect competition	Monopolistic competition
Few	Oligopoly	Differentiated oligopoly
One	Monopoly	—

1.4 The organization of economic activity

Prices:

- ❑ In competitive markets, a single price exists (market price). In non-competitve markets each supplier/company can determine a different price.
- ❑ Provide information about changes in consumer tastes and in production processes
- ❑ Provide incentives and disincentives regarding the production and demand of goods

We can differentiate:

- Absolute prices (in monetary units) and relative prices (in units of another good)
- Nominal and real prices

1.4 The organization of economic activity

Nominal prices/real prices:

<u>Nominal price</u>: is the total price at a given moment in time (price in current monetary units)

<u>Real price</u>: is the price in relation to a price indicator (price in constant monetary units or adjusted for inflation)

The most used price indicator is the Consumer Price Index (CPI) → BUYING POWER

In order to convert a current price from the year t to a real price referred to year s

$$\text{Real price year t (in m.u. of year s)} = \frac{CPI_s}{CPI_t} \times \text{nominal price year t}$$

1.4 The organization of economic activity

An example: nominal and real wages

Year	Nominal	CPI	Real
1970	2,000	100 (base1970)	100/100 x 2,000 = 2,000
1990	2,500	115	100/115 x 2,500 = 2,174
2000	3,000	120	100/120 x 3,000 = 2,500
2010	3,500	122	100/122 x 3,500 = 2,868

Exercises

1. Choose the correct sentences about Economics as a social science:

a) Scarce resources and limited needs drive choice

b) Positive economics explains and predicts economic events

c) The scientific method is based on the normative analysis

d) Economic hypotheses lead directly to predictions

2. Indicate which of the follow sentences are hypotheses and which are facts:

a) The price of oil tripled between 1973 and 1974

b) If poor countries receive a larger share of world income, their population will be healthier

c) At the beginning of the 80s many western economies faced high levels of unemployment

d) The establishment of high taxes on tobacco will reduce its consumption

3. The development of theories in economics:

a) Is useful because it incorporates all the complexity of reality

b) Is impossible due to the intrinsic nature of economics

c) Is useful even when it simplifies reality

d) In order to be good theory it should not simplify reality

4. Which of the following topics do not belong to macroeconomics?

a) The level of employment in 2010

b) The effect of economic policy on inflation in the last decade

c) The effect of increasing food prices on consumer demand

d) The influence of aggregate investment on economic growth

5. Complete the following chart by calculating the real wage of a family:

Year	1980	1990	2000	2010
CPI	100	120	125	128
Nominal wage	800€	900€	1000€	1200€
Real wage (in 1980 price)				