

GENERAL ECONOMY

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Course Objective:

To provide students entering economics with preliminary and general knowledge essential for further training in the field.

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We live in a world where the economy is omnipresent: not a day goes by without growth forecasts, unemployment or public deficit figures, the purchasing power of citizens being treated in the media. As a key to the analysis of certain social problems, understanding the workings of the economy is a major imperative for all citizens.

Economics, like history and psychology, belongs to the great family of human sciences whose common point is to have the same object of study: the human being. The purpose of economic science has changed a lot over time since the Greek philosophers began to think about economics. Economics has successively emerged as **the science of wealth** and **the science of scarcity**.

Economic science seeks to answer questions that have some impact on our daily lives. These questions cover a number of topics, including the production of goods and services, their consumption, wages and incomes, unemployment, inflation, government spending, taxes and regulation, international trade, distribution of wealth and poverty, the environment, etc. From these different themes, can the following questions arise that summarize some of the concerns of economics?

- How do individuals choose the goods and services they consume and the means of production they use?
- What determines each individual's income?
- What causes unemployment?
- Why are prices going up?
- How do taxes and public spending affect the economic life of a country?
- Why are some countries poor and others rich?
- How is the wealth created in an economy distributed?
- What explains poverty and gender inequality?
- What is the impact of the environment on people's consumption and production behaviour?

- How does the digital world affect the internal life of organizations, the relationships of markets and the practices of individuals as well as the way of thinking and conceptualizing organizational and economic phenomena?

1. Definition

The word "economy", invented in 1615 by Antoine de Montchrestien, comes from the Greek words "oïkos" and "nomos" which mean management of the city. Economics is the science of city administration, the science of managing scarcity and, according to John Stuart Mill, the practical science of producing and distributing wealth. Lionel Robins (1932) defines economics as the science of the study of human behaviour as the relationship between ends and limited means with alternative uses. According to E. Malinvaud (1982), economics is: *"the science that studies how scarce resources are used for the satisfaction of people living in society. It is concerned on the one hand with the essential operations of production, distribution and consumption of goods; on the other hand, it is concerned with the institutions (market) and activities designed to facilitate these operations"*.

The starting point for economic analysis is simple: people have **unlimited needs**, but **resources are scarce, i.e. the** resources available to meet them are limited.

- **Human needs are limitless;**

An economic need is defined as a lack that can be satisfied by the acquisition or consumption of goods and services. Keynes (1930) distinguishes two categories of needs:

- Those who possess an absolute character, which one feels regardless of the situation of other individuals.
- Those of a relative nature; what one experiences in contact with others.

- **Assets and resources are limited**

The economist is only interested in rare goods, which are called **economic goods** and excludes **free goods** from the field of study.

A **non-economic** or "**free**" **good is one that is** sufficiently available to satisfy all possible desires (*sun, wind, air, water*). An **economic good is a scarce good**; it is a good for which the quantity available is less than the quantity demanded by individuals even if it is given for free. They are characterized by the fact that they require a sacrifice to be produced. Among economic goods, a distinction is made between **tangible goods** (objects) and **intangible goods** (services), or between **productive goods** (goods that are used to produce other goods) and **final consumer goods**. Productive goods are divided into two categories, **intermediate consumer goods** (e.g. raw materials) and **capital goods** (machinery).

2. Scarcity, Choice and Opportunity Cost

- **Rarity**

Every economic problem stems from a simple and inescapable fact: **the impossibility for individuals to satisfy their desires**. **Scarcity is defined as a situation where needs and wants exceed the resources available to satisfy them**. In fact, needs are unlimited in the face of limited and finite resources.

- **The Choices**

The problem of scarcity forces us to make choices. Faced with the impossibility of getting what you want, you have to choose between the options available. As a result, some desires will be satisfied and others will not. Economic science is still called the **science of choices** or the **science of decision**.

- **Opportunity cost**

Choice implies opportunities and alternatives sacrificed. For example, when you choose to read this chapter, you are sacrificing the opportunity to do something else, such as watching television. **The greatest opportunity or alternative sacrificed is known as the opportunity cost**. Economists call **opportunity cost** the **price paid whenever, faced with limited resources, a choice has to be made**. The opportunity cost of a decision represents the value of the best opportunity given up by that decision. Opportunity cost is measured in terms of this "opportunity

value". But the opportunity costs we bear are not always the result of our own decisions. Sometimes it is the decisions of others that impose opportunity costs.

3. The question of the scientificity of economics

Economic science, like all the other social sciences, differs from physics or biology in its understanding of more complex and unstable systems (the control of human behaviour), leading to more fragile and ephemeral empirical laws. Like the natural sciences, it differs from linguistics or anthropology by its desire to transform the systems it studies.

However, the question of the scientificity of economic analysis is recurrently raised. A science is defined as an exercise in thinking about objects. This means that in order to claim the status of a science, the economy must have **its own object of study**. It also supposes that it uses **a scientific approach**: building theoretical models from truly scientific hypotheses, which can be tested by comparing the models with reality.

Thus, scientific analysis begins with hypotheses. Karl Popper (1963) indicates **that a proposition becomes scientific** when it can be **refuted, that is**, when it can be confronted with facts. A scientific hypothesis is therefore a proposition that carries within it the possibility of its own refutation (the parable of the black swan). This scientific analysis is extended in experimentation. The problem with economics comes from the fact that experimentation appears to be difficult. But this experimentation is often difficult for "hard" sciences for which experiments are not always possible (*human cloning, nuclear testing*).

4. The method of economic science

1. Assumptions, Laws and Models in Economics

Economists are pointing to laws that seem to govern the behaviour of economic agents. A **law** is **based on** more or less binding **assumptions** that represent simplifications of reality. Hypotheses and laws thus make it possible to build models that give a theoretical representation of how the economy works. These models are confronted with facts: the validity of a theory depends on the ability of its conclusions to explain the facts.

2. Theoretical analysis - Empirical analysis

Economic science uses two types of analysis, namely theoretical analysis and empirical research. In theoretical analysis, some initial assumptions are made and **the reasoning is deductive**. The deductive method proposes a set of deductions based on a hypothesis based on a fact from everyday experiences. Thus, starting from a logical reasoning, a body of general principles is then developed. In empirical research, on the other hand, the aim is to verify the hypotheses and conclusions of the theory. **Reasoning is inductive**. The inductive method proposes generalizations from a mass of data derived from experience.

3. Positive economy versus normative economy

Positive economics is about finding out what is. So it explains why things are the way they are. In this way, it aims to show the world as it is. Normative analysis seeks to define what things and behaviours should be, to explain how the world should be. It refers to judgments and opinions. Only the positive approach is a matter for science; normative economics is too much influenced by values that one seeks to respect.

4. Microeconomics and Macroeconomics

The social sciences almost always oppose **holistic** and **individualistic conceptions**. As a social science, economics is no exception. **Methodological individualism** is a method of analysing economic and social facts that assumes that the phenomena studied can be explained on the basis of individual behaviour. Holism is the method of analysis which considers that individual behaviour is part of a predetermined global context (the norms and rules of a society, the social category to which one belongs, etc.). Consequently, the study of the global context is necessary to understand individual acts. Methodological individualism considers that social facts are the unintended result of individual behaviour, whereas holism considers that it is the prior existence of social organization that determines individual decisions. In economics, this debate refers to the opposition between **microeconomics** and **macroeconomics**.

(a) Microeconomics

Microeconomics is about methodological individualism. Its purpose is to study the behaviour of individual economic agents, namely consumers (households) and producers (companies).

Microeconomics is an **explanatory** and **normative science**. It is explanatory because it accounts for the behaviour of agents and the interaction between these agents. It is a normative science because it studies the most favourable ways of organising the production, distribution and consumption of goods and services. The approach of microeconomic analysis is based on two fundamental assumptions:

5. The hypothesis of the **rationality of economic agents**. According to the principle of rationality, economic agents are always guided by the concern to maximize their satisfaction.
6. The hypothesis of the **supremacy of commercial exchange**. This hypothesis means that microeconomics emphasizes market exchange, i.e. the exchange that takes place on a market.

(b) Macroeconomics

Macroeconomics is holistic. It therefore studies the overall functioning of the economy and is interested in the relationships between global magnitudes called "aggregates" such as global consumption, total employment, global output, global investment, etc. It is also interested in the relationships between the various components of the economy. It also looks at global indices such as the inflation rate, the unemployment rate, etc. It is also interested in the relationships between the global indices.

Conclusion

Economics belongs to the large family of social sciences; it is defined by its object. Over time, it has emerged successively as the science of wealth accumulation and the science of scarcity. Because of scarcity, economic science is a science of choice and decision.

Economics is also defined by its method; it studies human behaviour through observation, the formulation of hypotheses, the establishment of laws and the construction of theoretical models. It strives to propose a positive approach to phenomena by favouring methodological individualism or holism; this distinction is the basis of the opposition between microeconomics and macroeconomics.

CHAPTER 1: ECONOMIC ACTIVITY

Economic activity is characterized either on the supply side of goods and services or on the demand side of goods and services. On the supply side of goods and services, economic activity is characterized by the production of goods and services resulting from the combination of the factors of production (capital and labour) on the one hand and the sale of goods and services on the other. On the demand side, economic activity is characterized by the purchase of goods and services.

The purpose of this chapter is to identify the actors and operations of economic activity, to schematize this economic activity and to give a measure of it.

1. Economic agents

Economic activity is carried out by human beings, whether or not they are organised agents, who enjoy decision-making autonomy. In view of the large number of economic agents that can be identified within the nation, it would seem desirable to group them into fairly homogeneous categories called institutional **sectors**. An **institutional sector** is defined as a **grouping of economic agents with similar behaviour**. There are six of them: non-financial corporations and quasi-corporations, households, general government, private government, financial institutions and insurance companies. In addition to these six institutional sectors, there is the rest of the world.

a) Non-Financial corporations and quasi-corporations

Enterprises are economic units whose main activity is the **production of non-financial market goods or services**. They use factors of production which they remunerate (wages and profits, income from factors of production). They buy and sell goods from and to other enterprises, which are called intermediate consumers. They also sell the goods and services they produce to households for consumption. Their resources come from the **sale of goods and services**.

b) Households

Households correspond to the group of economic agents whose main function is the **consumption of goods and services**. As **individual entrepreneurs**, households can also **produce non-financial market goods and services**. Their resources come from the **remuneration of production factors (wages, property income), transfers from other institutional sectors and income from sales**.

c) Public administrations

This sector includes all economic agents (central government, centralized authorities) whose main function is to **produce non-market services for other institutional sectors**. They derive their resources from **compulsory contributions** (*taxes, duties, social contributions*) made by the other sectors and received directly or indirectly.

d) Private administrations

These are private non-profit organizations that produce non-market services for households. They include associations, political parties, trade unions, churches and so on. Their resources come from **voluntary contributions, donations and grants**.

e) Financial Institutions

Their role is to **finance**, i.e. to **transform** and **redistribute** the financial availabilities. The funds come from the **financial commitments entered into** (*deposits*).

f) Insurance companies

They are made up of units whose main function is to **guarantee against the occurrence of a risk**. Their resources come from **social security contributions and contractual premiums**.

g) The rest of the world

Not all trade is within the country because life in autarky is a utopia. A fictitious agent is then generally introduced to represent international openness, i.e. exchanges with agents in other countries, and this agent is the rest of the world. Under the name rest of the world, transactions between resident units and non-resident units are grouped in the same set of accounts.

2. Economic operations

The national accounts distinguish three categories of transactions between economic agents, namely transactions in goods and services, distributive transactions and financial transactions.

2.1. Transactions in goods and services

They indicate the origin and use of goods and services. In a national economy, goods and services come from domestic production and imports. These goods and services are used for consumption, investment and export. The balance of production and imports that is not used can be stored (positive change in stocks). Thus, a distinction is made between five types of transactions in goods and services: production, intermediate consumption, final consumption, gross fixed capital formation, exports and imports.

i. **Production**

There are two types of production, namely **market** and **non-market production**. Market output is output that is sold or intended to be sold at an economically significant price; it is the price that covers more than half of the production costs. Non-market output is that which provides either free of charge or at an economically insignificant price.

ii. **Intermediate consumption**

Intermediate consumption refers to the value of goods and services used in the production process that are either totally destroyed or totally incorporated into more elaborate products.

iii. **Final consumption**

Final consumption is defined as the value of goods used for the satisfaction of human needs.

iv. **Gross capital formation**

Gross capital formation is subdivided into :

v. **Gross fixed capital formation (GFCF)** or investment, which is the difference between acquisitions and disposals of fixed assets.

vi. **Inventory Changes (ΔS)** which is the difference between the receipts and issues of goods in stock.

vii. **Exports and imports**

Exports are the goods and services provided by resident units to non-resident units. Imports are goods and services provided by non-resident units to resident units.

2.2. Allocation operations

Distribution operations concern the distribution of the wealth created between the different agents. There are two types of distribution, namely **primary distribution** (allocation of primary income) and **secondary distribution** or **redistribution**.

Primary income allocation operations concern :

- a) Compensation of employees
- b) Taxes related to production and imports (VAT)
- c) Operating and import subsidies
- d) Property and business income

Secondary income redistribution operations are based on :

- e) Property and casualty insurance operations
- f) Current transfers without counterpart
- g) Capital transfers (investment grants).

2.3. Financial operations

Financial transactions cover all transactions between agents **with financing capacity** and agents **with a need for financing**. They show how agents in need of financing find financial resources from agents with financing capacity. Among the financial transactions, we can distinguish :

- h) Those relating to **payment instruments** (transactions involving directly usable means of payment such as foreign currency, gold, national currency) - Those relating to **investment instruments** (transactions involving a reserve of directly usable means of payment such as shares, bonds, treasury bills, etc.).
- i) Those relating to **financing instruments** (transactions on short, medium and long-term loans)

3. The economic circuit

In simplified terms, economic activity can be schematized as follows. This schema is known as the economic circuit. In this circuit, only the market for goods and services is considered.

Households provide a labour force for companies and receive a salary in return; this income enables them to pay taxes and social contributions to the State; which gives them the opportunity to benefit from non-market goods and services (police, public infrastructure, etc.) and transfers. Household income also enables them to express a demand for goods and services; the part of the unconsumed income of households is offered to financial institutions in the form of savings and receive credit in return.

As far as companies are concerned, they find financing for credits offered by financial institutions; these credits enable them to express a demand for investment on the market for goods and services. Thus, thanks to the work of households, companies produce goods and services. The income from the sale of production enables them to pay salaries, taxes and social contributions and to benefit from non-market goods and services from the State.

On the other hand, financial institutions also benefit from non-market goods and services from general government. Also, the national economy maintains relations with the rest of the world through export and import operations.

4. Measurement of economic activity

An analysis of national economic activity can be made on the basis of the operations of economic agents and their synthetic representation. The instruments of analysis are provided by the **national accounts**; the national accounts are a **numerical and synthetic representation of national economic activity**. The main instruments of analysis are called **aggregates**. Aggregates are **synthetic quantities** that measure the results of economic activity in terms of output and income.

The most widely used aggregate is **GDP** (*Gross Domestic Product*). GDP is the main measure of national production. GDP is therefore defined as **all goods and services produced in a country by residents during a given period, usually one year**. If we look at the production of a country's nationals, we calculate **GNP** (*Gross National Product*), which measures the production of goods and services by nationals both within the country and in the rest of the world.

In terms of income, **GNI** (*Gross National Income*) and **GNDI** (*Gross National Disposable Income*) are the main economic aggregates. Indeed, the production of resident units gives rise to a distribution of primary income. But this distribution is not equal between residents and economic agents in the rest of the world. GNI is therefore obtained from GDP as follows: $GNI = GDP + \text{factor income from the rest of the world} - \text{factor income paid to the rest of the world}$. If we consider redistribution, the GNI obtained is defined as follows: $GNI = GNI + \text{transfers received from the rest of the world} - \text{transfers to the rest of the world}$.

Conclusion

Economic activity brings together different types of economic agents (SQQNF, households, UAA, private administrations, financial institutions and insurance companies) who carry out production, distributive and financial transactions between them. These transaction flows follow a certain economic circuit. The measurement of this economic activity makes it possible to define economic aggregates such as GDP, GNP, GNI and GNI.

Microeconomics is based on understanding the behaviour of economic agents. In other words, any explanation of economic or social phenomena must be able to be traced back to the individual behaviour of economic agents. The basic units of the economy are households and enterprises. Households or consumers buy goods and services on the market which they then consume. They derive a satisfaction called **utility**. Its objective is the maximisation of its utility under the constraint of its income. As for companies or producers, the search for profit is one of their main motivations.

1. The consumer's calculation

1.1. The consumer's utility function

a) *The definition of utility*

Consumer behaviour is based on a simple question: "**Why does a consumer buy a certain good?**" The reason for this question is also simple: "**the good has some use for the consumer**". **Utility** is the benefit or satisfaction that a person derives from the consumption of a good or service. The question that arises is how to apprehend utility? The answer to this question makes it possible to distinguish between **cardinal utility** and **ordinal utility**. Proponents of cardinal utility believe that utility is measurable and that the utility produced by the consumption of a good can be quantified. Proponents of ordinal utility, on the other hand, express the view that utility cannot be quantified; one can only establish a number of preferences between different goods.

b) *Total utility*

It is the total benefit or total satisfaction that a person derives from the consumption of a good or service. The level of total utility depends on the quantities consumed; the higher the level, the greater the total utility.

Table 2.1 gives an example of the utility that Jonathan gets from different amounts of biscuits the utility depicted in Figure 2.1.

Quantities	0	1	2	3	4	5	6	7	8	9	10
Total Utility	0	50	88	121	150	175	196	214	229	241	250

FIGURE 1.1

c) *Marginal utility*

Marginal utility is the extra total utility that a consumer derives from the consumption of an additional unit of a good; in other words, it is the change in total utility that occurs when an additional unit of a good is consumed.

$$U_m = \frac{\Delta U_t}{\Delta Q_t} = \frac{U_{t2} - U_{t1}}{Q_{t2} - Q_{t1}}$$

Table 2.2 shows the results of the marginal utility calculation and Figure 2.2 shows the results graphically.

Q	0	1	2	3	4	5	6	7	8	9	10
UT	0	50	88	121	150	175	196	214	229	241	250
U _m	-	50	38	33	29	25	21	18	15	12	9

FIGURE 2.2

d) *The principle of marginal utility decay*

The notion of utility leads to an essential hypothesis in terms of consumer behaviour: that of the decrease in marginal utility. For neoclassical economists, utility is fundamentally decreasing, because the utility of a given quantity of a good depends on the quantity of the same good already available to the consumer. Thus, the utility of the third glass of milk is lower than that of the first glass of milk.

e) *The notion of preference, indifference curve and marginal rate of substitution.*

Initially, economists considered that the consumer was supposed to be able to evaluate the utility of successive consumptions of the same good (cardinal approach). This hypothesis appeared debatable given the difficulty of quantifying these different levels of utility. Neoclassical economists have proposed a simpler approach whereby consumers can simply indicate an order of preference in the consumption of several goods (the so-called ordinal approach).

Thus, consider that an individual consumes two (02) goods (rice and plantain); the individual can establish an order of preference that reflects his preferences between the two (02) goods. The individual can adopt only one of the following three (03) propositions:

- rice is preferred to plantain
- plantain is preferred to rice
- indifference in the choice between rice and plantain

The **indifference curve** is the locus of all combinations of goods and services whose consumption provides exactly the same level of consumer satisfaction; graphically we have :

FIGURE 2.3

The indifference curves have three (03) properties, namely:

- They're decreasing,
- They are convex in relation to the origin,
- They can't cut themselves.

The set of indifference curves gives an indifference map.

FIGURE 2.4

The **marginal rate of substitution** (MRS) determines along an indifference curve the quantity of one good that the consumer is willing to give up in order to obtain an additional unit of the other good. Algebraically, the MRS is expressed as follows:

$$TMS = \left| -\frac{\Delta X}{\Delta Y} \right|$$

1.2. The budgetary constraint

- *Description*

Suppose that the income (**R**) held by an individual is used to purchase two (02) goods **X** and **Y**, the price of good **X** is **P_x** and the price of good **Y** is **P_y**; the budget constraint is written :

$$R = P_x X + P_y Y$$

Example: Edouard has an income of CFAF 10,000 which he spends on 2 goods: a political economy book (X) and a music CD (Y); a political economy book costs CFAF 2,000 and a music CD costs CFAF 1,000. Write the budget constraint.

- *The graphic representation*

FIGURE 2.5

All the points on the right or below the right (hatched part) are accessible to the consumer, on the other hand, the points outside the triangle delimited by the right and the 2 axes are accessible to the consumer. Points **A** and **B** are accessible to the consumer while point **C** is inaccessible to the consumer.

1.3. The consumer's optimum

Every rational consumer seeks to maximize his utility. Utility maximization is about obtaining the greatest possible utility. But household income and the prices that must be paid limit the level of utility that can be achieved. Thus, the economic agent makes his consumption choices in such a way as to maximise his utility but taking into account his budgetary constraint; this allows the consumer to reach an equilibrium or optimum point.

The consumer's optimum is obtained after verification of the following two conditions:

$$\begin{cases} TMS = \frac{U_{mx}}{U_{my}} = \frac{P_x}{P_y} \\ R = P_x X + P_y Y \end{cases}$$

Graphically the equilibrium point is at the point of tangency between the budget line and the highest indifference curve having at least one point in common with this line. Indeed, the consumer seeks to achieve the greatest possible satisfaction given his budget availability.

2. Producer's calculation

2.1. The production function in the company

The company's production function is a function that relates the **input** quantities of **production factors** to the **output quantity**. Factors of production can be fixed or variable. The fixed factor is a factor whose quantity cannot be changed during the time period under consideration (Buildings

and equipment of a company). The factor is said to be variable if its quantity can be changed during the given period of time (Raw materials; energy; labour).

By noting Y the volume of production, K the volume of capital used, and L the volume of labour required, we can mathematically construct the relationship between the quantity produced and the quantity of factors used, i.e. $Y = f(K, L)$. The production function is also **called the productive combination**.

a) The production function with a fixed factor

In the short term (period of one year), the quantity of capital is fixed; the change in output can only result from the change in the quantity of labour input. Suppose, for example, that the change in the quantity produced as a function of the volume of labour input (number of workers) is as follows :

Table 2.3

Number of employees	0	1	2	3	4	5	6	7	8
Production (Y)	0	16	48	68	80	88	92	94	94

To characterize this production function, economists distinguish three types of quantities, namely **total productivity, average productivity and marginal productivity**.

Total productivity (or output) is the volume of production that can be obtained by combining a certain amount of production factors.

Average productivity (or output) is given by the ratio between the quantity produced and the quantities of Y factors used. It is noted $PM = \frac{Y}{L}$.

Marginal productivity (or output) is the extra output obtained by using an extra unit of factor. It is noted $P_m = \frac{\Delta Y}{\Delta L}$ or $P_m = \frac{dY}{dL}$ by considering the case of a continuous production function (marginal productivity then becomes equal to the derivative of total output).

Using the data in Table 2.3, the values of average and marginal productivity can be calculated.

Table 2.4

Number of employees	0	1	2	3	4	5	6	7	8
Production (Y)	0	16	48	68	80	88	92	94	94
Average production (PM)	-	16	24	22,7	20	17,6	15,3	13,4	11,8
Marginal production (Pm)	-	16	32	20	12	8	4	2	0

Figure 2.6: Productivity curves

From the previous example, it can be seen that total productivity does not increase in proportion to the amount of factor used. Initially, there is a phase of increasing returns, i.e. production increases more than proportionally with the increase in new factor units; in other words, marginal productivity is increasing. Then, total productivity moves into the area of decreasing returns where marginal productivity decreases until eventually becoming negative.

(b) The substitutable-factor production function

In the long term, all production factors become variable; in the production process, there is therefore the possibility of arbitrage between factors of production. The possibilities of arbitrage will be all the greater the more the factors of production are either perfectly, moderately or not substitutable. This trade-off is represented by production contours called **isoquants**. An isoquantum corresponds to the set of productive combinations of labour and capital factors that make it possible to achieve the same level of production.

Figure 2.7: Isolating

Isoquantes have the same properties as indifference curves.

Substitutability between production factors also allows the concept of marginal rate of technical substitution (MTST) to be defined. The **ASMR of** labour input (L) or capital (K) is the additional quantity of factor K that the firm must have available to replace the unit of factor L while keeping

output unchanged. Mathematically, the TMST is expressed as follows: $TMST = \left| - \frac{\Delta L}{\Delta K} \right|$

c) Factor efficiencies - Scale efficiencies

Factor returns refer to a short-term horizon. They reflect the change in output induced by the increase in the quantity used by one factor, the other being assumed to be fixed. Yields of scale reflect the increase in output resulting from the proportional variation of all factors of production.

Yields can be :

- **Constants** when the variation in the quantities of production factor leads to an equivalent variation in the quantity produced.
- **Increasing** when the variation in the quantities of production factor gives rise to a more than proportional variation in the quantity produced.
- **Decreasing** when the variation in production factor quantities results in a less than proportional variation in the quantity produced.

2.2. Enterprise cost function

a) The different types of costs

Traditionally, a distinction is made between two types of costs: **fixed costs** and **variable costs**. Fixed costs are costs incurred by the company regardless of the quantity produced. Variable costs are costs that change with the level of production.

b) The calculation of costs

The following table describes the costs incurred by a company for production Y.

Table 2.5

Production (Y)	1	2	3	4	5	6
Fixed costs	200	200	200	200	200	200
Variable costs	80	140	180	250	400	600

From this table, the following costs can be calculated: **total cost**, **average cost** and **marginal cost**.

The total cost of production (TC) is equal to the sum of the fixed costs and the variable costs,

i.e. $CT = CF + CV$

The average cost (MC) is the cost per unit produced; it is therefore equal to the ratio of the total cost to the quantities produced, i.e. $CM = \frac{CT}{Y}$

Marginal cost (Cm) is the extra cost of production resulting from the production of an additional unit of a good, i.e. $C_m = \frac{\Delta CT}{\Delta Y}$

In the case of a continuous function, we have $C_m = \frac{dCT}{dY}$

Calculation on the previous data gives the following results: **Table 2.6**

Production (Y)	1	2	3	4	5	6
Total cost	280	340	380	460	600	800
Average cost	280	170	127	115	120	134
Marginal cost	80	60	40	80	140	200

These different costs can be illustrated graphically. *Figure 2.8*

(c) *Economies of Scale - Diseconomies of Scale*

Economies of scale are achieved when increased production reduces unit costs. The opposite case illustrates diseconomies of scale.

2.3. The balance of the producer

c) *The isocoût right*

Suppose a firm that has a budget C; this budget is devoted to the acquisition of the 2 factors of production, namely labour (L) and capital (K). These factors of production are worth P_L and P_K respectively. The firm's cost constraint is written as: $C = P_k K + P_L L$

d) *Producer choice in the case of production maximization*

The equilibrium condition in the case of maximizing production under a production cost constraint is as follows:

$$\begin{cases} TMST = \left| -\frac{\Delta L}{\Delta K} \right| = \frac{P_{mK}}{P_{mL}} = \frac{P_K}{P_L} \\ C = P_k K + P_L L \end{cases}$$

Conclusion

Microeconomics studies the behaviour of economic agents taken in isolation, i.e. households and businesses. The calculation of the consumer boils down to the maximisation of utility under the constraint of the budget; this leads to the definition of the consumer optimum. Symmetrically, the firm maximises its output while taking account of its production costs in order to choose its optimum production combination.

In the previous chapter, we discussed two types of economic agents, namely households and businesses. The former consume and the latter produce; they therefore express demand and supply respectively. The meeting between demand and supply takes place on a market. A market can therefore be defined as the meeting place, not necessarily physical, between supply and demand. It is characterised by the way in which this meeting between supply and demand takes place, resulting in a traded quantity and a price. There are different types of market. First of all, there is the classification of markets according to the geographical area concerned; we can therefore have the local market, the national, African, European and international market. We can also distinguish the markets according to the object of the exchange: the markets of goods and services, the labour market, the capital market, the credit market, etc.

1. Supply and demand

Supply and demand result respectively from the behaviour of firms (sellers) and consumers (buyers in a market).

a) Demand

The quantity demanded of a good or service represents the quantity of the good or service that consumers plan to purchase at a given price over a given period of time. Demand does not correspond to the desires of individuals. The quantity demanded does not necessarily correspond to the quantity purchased. There is a difference between the quantity demanded and the quantity purchased. The quantity demanded of a good or service depends on several factors, the main ones being: the **price of the good**, the **price of other goods**, **consumer income**, the **population**, **consumer preferences**.

With regard to the price of the good, the **law of demand** stipulates that all other things being equal, the quantity of a good requested decreases as its price increases. The requested quantity of a good depends on the price of that good but also on the prices of other goods. The influence of the prices of other goods makes it possible to distinguish between **substitute** and **complementary goods**. A substitute good is a good that can be used in place of another good. A complementary good is a good that is consumed with another good. The consumer's income also affects the quantity of goods demanded. Indeed, when their income increases, consumers generally increase the quantity demanded of most goods. Goods for which demand increases with income are called **normal**

goods. On the other hand, goods for which demand decreases as income increases are called lower **goods.** Population also has a positive effect on the demand for goods. As population increases, the demand for all goods increases. Finally, preferences also influence the demand for goods. Preferences refer to the elevation of consumer tastes for goods and services. Preferences cannot be observed directly, so consumer preferences cannot be known exactly. Schematically, the demand curve is as follows:

Figure 3.1

b) The offer

The quantity offered of an asset represents the quantity that producers intend to sell over a certain period of time based on the prevailing market price. The quantity offered does not necessarily equate to the quantity that will be sold or purchased. Consumers can thwart the companies' sales plans by buying less than the quantity planned by the companies. Several factors explain the quantity offered of a good: the **price of the good**, the prices of **other goods**, the **prices of factors of production and the available technology.**

The effect of the price of the property on the offer makes it possible to state the **law of the offer.** The law of supply states that "all other things being equal, when the price of a good rises, the quantity of that good offered also rises". The prices of other goods can affect the supply of a good. A distinction is also made between **substitute** and **complementary goods.** An increase in the price of a production substitute good causes a decrease in the supply; an increase in the price of a complementary good causes an increase in the supply of the other complementary good. The prices of the factors of production that go into the manufacture of a good will have a significant effect on the supply of that good. Thus, an increase in the prices of labour and capital used in the production of a good leads to a decrease in the supply of that good. Finally, by reducing the quantity used of production factors and their prices, technical progress allows producers to lower their production costs and increase their supply. Graphically, the supply curve is as follows:

Figure 3.2

2. Market equilibrium and price formation

An **equilibrium** is defined as a situation where opposing forces compensate each other. An **equilibrium price** is the price at which the quantity demanded is equal to the quantity offered. If the price is too high, the quantity offered exceeds the quantity demanded (**oversupply** or **surplus**). Conversely, if the price is too low, the quantity demanded exceeds the quantity offered (**excess demand** or **shortage**). There is only one price for which the quantity offered equals the quantity requested. Graphically, the balance in the market for goods and services is as follows:

Figure 3.3

3. Elasticities

When the offer decreases the price goes up, but by how much? A decrease in demand leads to a decrease in price. The question is, how much lower? In order to answer these various questions, economists use the **concept of elasticity**.

3.1. Price elasticity of demand

a) *Definition of the concept of price elasticity of demand*

Price elasticity of demand measures the sensitivity of the demand for a good to a 1% change in that good; in other words, price elasticity of demand measures how the quantities demanded of a good change when the price of that good changes by 1%. The percentage change in the price is positive (when the price increases) while the change in the quantity purchased is negative. Price elasticity is always negative, but in general the absolute value is taken into account.

b) *Calculating the price elasticity of demand :*

In order to calculate the price elasticity of demand, the quantity purchased at different prices must be determined

$$E_p = \frac{\frac{\Delta Q}{Q_M}}{\frac{\Delta P}{P_M}} \quad ; \text{ with : } \Delta Q = Q_2 - Q_1 ; \quad \Delta P = P_2 - P_1 ; \quad Q_M = \frac{Q_2 + Q_1}{2} ; \quad P_M = \frac{P_2 + P_1}{2}$$

Example: We have the following data on the prices and quantities requested of a good; at 10F per unit, sales are 9F per unit. If the price increases to 20F, the unit and quantity is 6 units. Calculate the price elasticity of demand for this good.

In general, the price elasticity of demand (PE) is between 0 and infinity (∞). If the price elasticity of demand E_p is between 0 and 1, i.e. $0 < PE < 1$, the demand is said to be *inelastic or insensitive*. If the price elasticity of demand (PE) is greater than 1, i.e. $E_p > 1$, the demand is said to be *elastic, i.e. sensitive*. If the price elasticity of demand (E_p) is equal to infinity, i.e. $E_p = \infty$, the demand is said to be *perfectly elastic, i.e. very sensitive*. If the price elasticity of demand (PE) is equal to 0, i.e. $PE = 0$, the demand is said to be *perfectly inelastic, i.e. not sensitive*.

3.2. Determinants of the price elasticity of demand

The price elasticity of demand depends mainly on 3 factors:

- *Substitutability between products* a good for which there is no perfect substitute has a less elastic demand than another good that has a perfect substitute.
- *The share of income devoted to the product*

The higher the share of income spent on the product, the higher the elasticity of demand.

- *The time horizon under consideration.*

The longer the period considered, the more elastic the demand. Indeed, over time, it is easier to find a product which can replace those whose prices have increased.

3.3. Other types of elasticity of demand

The quantity required of a good depends on the price of that good but also on the income and price of other goods. **The income elasticity** and the **cross-price elasticity** can be calculated.

i. *Income elasticity*

Income elasticity measures the sensitivity of the demand for a good to a 1% change in consumer income; in other words, it measures how the quantities demanded for a good vary when consumer

income varies by 1%.
$$E_r = \frac{\frac{\Delta Q}{Q_M}}{\frac{\Delta R}{R_M}}$$

Income elasticity can be either positive or negative.

- If E_r is greater than 0, i.e. $E_r > 0$, the *goods are said to be normal*.
- If E_r is less than 0, i.e. $E_r < 0$, the *goods are said to be inferior*.
- If E_r is greater than 1, i.e. $E_r > 1$, the *goods are said to be luxury goods*.

- *Cross-price elasticity :*

Cross-price elasticity measures the sensitivity of demand for one good to a 1% change in the price of another good; in other words, how the quantities demanded for one good change when the price of another good changes by 1%.

$$E_c = \frac{\frac{\Delta Q_x}{Q_x}}{\frac{\Delta P_y}{P_y}}$$

If E_c is greater than 0 i.e. $E_c > 0$, the *goods are said to be substitutes*.

If E_c is equal to infinity i.e. $E_c = \infty$, *the goods are said to be perfect substitutes*.

If E_c is less than 0, i.e. $E_c < 0$, the goods are said to be *complementary*.

4. The different types of market

4.1. The market of pure and perfect competition

Neoclassical economists have proposed a formalisation of an ideal market called a market of pure and perfect competition.

- *Definition*

A market of pure and perfect competition is a market that must satisfy the following five conditions: **atomicity of supply and demand, free entry and exit on the market, market transparency, product homogeneity and mobility of production factors.**

The atomicity of supply and demand presupposes the existence of a multitude of supply and demanders so that none of them can influence the market. Free market entry refers to the absence

of restrictions on entry; thus competition is not fixed. According to the criterion of market transparency, all market participants benefit from perfect information on market conditions (in particular prices). Product homogeneity assumes that the products traded on the market are identical so that competition can only be based on price. Factor mobility is explained by the fact that the factors of production can move so that each firm can benefit from the same production conditions.

- ***Price formation in the market of pure competition***

The functioning of the CPP market results from the confrontation of supply (the sum of individual offers) and demand (the sum of individual requests) for each product which determines an equilibrium price. This price is unique and imposes itself on the market to economic agents as a natural order ("the invisible hand of the classical economist Adam Smith or later the auctioneer of Léon Walras). Both bidders and bidders are "*Price Takers*" in this market. The only choice available to sellers and buyers is that of the quantity to be bought or sold. In such an environment, any change in supply and demand necessarily and rapidly leads to a new equilibrium characterized by a new equilibrium point.

Suppose, for example, that demand is greater than supply. This corresponds to a low price. In this case, the demanders who could not buy the good are willing to pay a higher price for it. Symmetrically, suppliers are willing to put more goods on the market if prices rise. A new, higher price will therefore emerge, with the offerers being able to take advantage of a higher price since many buyers are willing to pay this price. And so on until the equilibrium price p^* for an equilibrium quantity q^* .

Classical and neoclassical economists, through the market of pure and perfect competition, therefore postulate **price flexibility** as the central pivot of their analysis.

4.2. The market of imperfect competition

In general, markets do not respect market conditions of pure and perfect competition. Thus imperfect competition occurs whenever a condition of pure and perfect competition is not respected.

- ***The barriers to the assumptions of pure and perfect competition.***

The following table summarizes the potential impediments to the achievement of the CPC's assumptions

CPC Assumptions	Constraints on assumptions ("non-competitive" situation)
Atomicity of suppliers and applicants	Concentration of supply and demand
Market Transparency	Partial, confidential, misleading information
Product Homogeneity	Product differentiation by suppliers
Freedom of market entry	Existence of barriers to entry
Perfect mobility of production factors	Protectionist barriers

• *The market atomicity criterion and the Stackelberg typology*

The atomicity criterion postulated by the CPP market is questioned not only at the level of supply but also at the level of demand. Failure to comply with the atomicity criterion is at the root of the existence of so-called imperfectly competitive markets. The German economist Stackelberg has summarised the various possible configurations in a table.

Buyers	Sellers	Types of market
Very numerous	Very numerous	Competition
Very numerous	Few	Oligopole
Very numerous	Two	Duopole
Very numerous	A	Monopoly
Only one	A	Bilateral monopoly
Only one	Very numerous	Monopsone
Two	Very numerous	Duopsone
Few	Very numerous	Oligopsone

• *Price formation in imperfect competition.*

Price-fixing in imperfect competition takes place in significantly different ways depending on the market configuration under consideration. There is therefore scope for action on the part of

economic operators, in particular producers. The latter are no longer "Price Takers", i.e. passively subject to the market. They are now "**Price Maker**".

In a monopoly situation, the company itself sets the market price so as to maximise its profit. The latter is subject to two opposing effects: a **price effect** (the increase in price increases revenues) and a **quantity effect** (the increase in price will decrease the quantity demanded).

Monopolistic competition and oligopoly situations are most often the rule in reality. In the oligopoly market, a price struggle between companies can lead to the disappearance of some companies. Indeed, when the product is strictly homogeneous, consumers choose the cheapest price. To avoid a price confrontation, firms may adopt a **product differentiation** strategy that allows them to build customer loyalty. The product is then unique for the applicants; the company is in a situation of **monopolistic competition** or **differentiated oligopoly**.

In general, in setting prices, the undertaking takes into account its **production costs** and the **psychological price** accepted by consumers after studying the market. It must also take account of the sensitivity of demand to changes in the price of the good.

Conclusion

The market is where supply and demand meet. The market of pure and perfect competition is the first form of market implemented by neoclassical economists. In this market, prices are imposed on the various players. In reality, however, the assumptions of the PPC market are difficult to verify. For example, failure to respect the hypothesis of atomicity of suppliers and demanders makes it possible to define other types of market in which the company is a Price Maker.

Economic growth is an essential subject of study in economics. It is a fundamental objective of all public authorities interested in quantitative increase in production. When the qualitative aspects are integrated, the concept of economic development is defined.

1. Definition, measurement and explanatory factors of economic growth

a) Definition

Economic growth is a purely quantitative measure that reflects the long-term increase in output in an economy. The benchmark indicator is gross domestic product (GDP). Economic growth is therefore **the sustained increase in a country's output over a long period of time**. Economic growth is distinct from **economic expansion**. Economic expansion is a **cyclical increase in a country's output**. In other words, it corresponds to an upward phase of the economic cycle and is of short or medium duration.

b) Measuring Economic Growth

The measurement of economic growth is essentially based on the calculation of GDP. GDP is calculated essentially through three lenses: production, demand and income. To establish the growth rate, the rate of change in GDP over a given period is calculated.

c) Factors explaining economic growth

Economists first sought to explain economic growth by taking into account the contribution of two major factors of production, **labour** and **capital**. One of the best known works is that of Carré, Dubois and Malinvaud (1972). A distinction is thus made between **intensive** and **extensive growth**. Extensive growth occurs when the increase in output is the result of an increase in the factors of production used. Intensive growth, on the other hand, refers to growth resulting from a better use of production factors generating productivity gains.

The contribution of factors of production provided an insufficient explanation for the growth, so economists have been looking for the origin of the large unexplained part. In the first place, technical progress, considered as exogenous, was the factor identified in particular by Solow (1957). In the 1980s, a **so-called endogenous growth theory** was developed to identify the factors explaining growth. According to the theory of endogenous growth, economic growth is largely the result of technical progress, which itself depends on the various factors internal to economic

growth, in particular the **accumulation of knowledge** and the **quality of major infrastructures**, behind which we often find State action.

2. Irregularities in growth: the cycles

Economic growth shows a general and lasting trend of increasing economic magnitudes (**the trend**) but also significant variations over time called **fluctuations** or **cycles**. The trend (of growth) refers to the secular movement of increasing human-produced wealth. A cycle is a phenomenon of economic fluctuation of a regular nature, resulting in alternating phases of expansion and recession affecting fundamental economic variables (production, prices, employment). There are several types of cycles with varying degrees of amplitude. First, there are long cycles known as "**Kondratieff cycles**" which have a large amplitude (total duration of around 50 years) with two phases of around 25 years, one expansion and the other recession. Then there are short cycles called respectively "**Juglar cycles**" (with a periodicity of between 5 and 10 years) and "**Kitchin cycles**" (with a total amplitude of 3 to 4 years).

3. Economic development

Economic development is an **irreversible qualitative phenomenon** observable over a long period of time, characterized by a transformation of economic and social structures linked to economic growth. These changes in structure refer to different manifestations of development: standard of living, industrialization, demographic indicators, urbanization, level of education and qualifications. The notion of development can be likened to an increase in well-being. In this case, we speak of **human development**. Human development is characterized by the capacity of a country to satisfy the needs of a population not only in monetary terms but also in terms of education, health, hygiene, etc. The human development is characterized by the capacity of a country to satisfy the needs of a population not only in monetary terms but also in terms of education, health, hygiene, etc. The human development is characterized by the capacity of a country to satisfy the needs of a population not only in monetary terms but also in terms of education, health, hygiene, etc. In this perspective, United Nations economists calculate a "**human development index**" (**HDI**) by combining several elementary factors: GDP per capita but also life expectancy, adult literacy rate, school enrolment rate. Environmental problems are very important to us, hence the use of the concept of **sustainable development**, which reflects the need for

balanced growth in ecological terms. Sustainable development is development that meets the needs of the present without compromising the needs of future generations.

Conclusion

Economic growth is an issue for economies; it is a quantitative measure of a country's output over a period of time. Several explanations are given for this phenomenon, which can go through fluctuations or cycles. If we look at the qualitative aspect, the concept of economic development is highlighted.

When we talk about the economy, we very quickly think of money. Money is often equated with wealth. Is this link justified? Isn't money rather the representation of wealth without really being its foundation?

1. Money and its specific features

1.1. The functions of money

Money fulfils three distinct functions:

- A **unit of account** (**valuation** function); this function aims to value all goods and is thus the central function of money as it allows the existence of an exchange economy;
- a **store of value** (**hoarding** function); money enables purchases to be spread over time, it represents a link between the present and the future: it is a savings instrument;
- an **intermediary of trade** (**circulation** function); it thus enables goods to be exchanged easily by establishing a link between potential traders who would otherwise be unable to carry out their transaction.

1.2. Forms of money and the different means of payment

(a) Forms of currency

You can see:

- commodity money:

Initially, the only form of exchange was barter. But because of the difficulties inherent in a barter economy, it was necessary to choose a good that should play the role of money.

Thus, money in its primitive form took the form of a commodity.

- metallic money:

The first coins appeared in antiquity as a successor to commodity coins and played a dominant role until the 19th century. Copper, bronze, silver and gold coins coexisted together for centuries. These metals were chosen because of their rarity, but also because of a religious symbolism (gold-sun, silver-moon).

- paper money :

These are the notes in circulation, which were originally issued by private bankers as early as the 17th century. But high-profile bankruptcies, such as that of John Law's General Bank in 1720, justified the need to limit the creation of fiat money. From then on, the creation of fiat money was initially dependent on the amount of gold owned by the central bank (the *currency school* principle), then it was freed from this (the *banking school* principle). The banknotes then became a genuine currency issued in return for credits to the economy.

Nowadays, the value of bank notes is based solely on the **confidence that** economic agents have in their currency (*fidus* means confidence in Latin), a confidence that is obligatory, because not only do banknotes have **legal tender status** (no one can refuse them in payment of a debt), but they also have a **forced price, i.e. they are** unconvertible to precious metals.

- scriptural money:

It is the currency that consists of a simple set of entries in an account. It is called a current account because the credit is redeemable in notes at the counter (current means to the holder himself). It does not circulate from hand to hand but by (scriptural) play of writing from one account to another within the banking system.

- Electronic money

E-money consists of an outstanding amount stored in a multi-provider prepaid card.

(b) Means of payment

The means of payment used for the circulation of monetary instruments are :

- Metallic money or divisional money
- paper money
- Cheque
- Bank transfer
- Payment card

1.3. The money supply and its counterparts

The **money supply** is defined as **all the means of payment in circulation in an economy and investments that can easily be converted into liquidity**. In other words, the money supply can be defined as all monetary assets held by non-financial economic agents that can be immediately

or rapidly used to perform the major macroeconomic functions: consumption, investment, and savings.

The money stock can be divided into different **monetary aggregates**; a **monetary aggregate** is defined as the **aggregation of a homogeneous set of monetary and non-monetary assets**. It is then possible to classify money aggregates in descending order of liquidity. The following classification can thus be used, notably in the BEAC:

- The monetary aggregate M1, which is composed of currency (banknotes and coins) and overnight deposits; $M1 = \text{Coins} + \text{banknotes} + \text{overnight deposits}$.
- The monetary aggregate M2 consists of the monetary assets included in M1 and quasi-money (savings deposits and fixed-term deposits); $M2 = M1 + \text{savings deposits and fixed-term deposits}$.

The counterparts of the money supply are the sources of money creation by the financial system; a distinction is made between claims on foreigners, net claims on the State and credits to the economy, which are the most important component.

2. Debates about the role of money and the demand for money

What are the consequences of changes in the money supply on real economic phenomena?

What motivates economic agents to hold their wealth in liquid forms?

For some authors (the classics and the neoclassics), monetary and real phenomena are disconnected: we talk about the **neutrality of money**. Indeed, the neutrality of money means that money has no influence on the real quantities of the economy (economic growth, investment, consumption, etc.) especially in the long term. Moreover, money is only required by agents to carry out transactions. In this respect, the demand for money is a positive function of income.

Conversely, other authors (the Keynesians) question the separation of the real and monetary spheres. For these authors, **money is non-neutral**, i.e. it influences the real magnitudes of the economy. The Keynesians distinguish three reasons for holding money. The first is the transaction motive: agents want cash in order to be able to carry out transactions. This demand is a positive function of income. The second reason is the precautionary motive; here, economic agents want to hold money in order to meet unexpected expenses and this demand is a positive function of income.

The third reason is speculation. The speculation motive is determined by the objective of realizing capital gains on the securities market. This motive is a negative function of the interest rate.

3. The supply of money

- **The mechanism of money creation**

The supply of money or **money creation** means putting a **new quantity of money into circulation, not substituting one form of money for another**. In fact, it consists of the provision of economic agents with completely new means of payment. Only financial agents, who are authorised to manage cashless means of payment, can carry out this operation. All they have to do is to enter an amount in the account of a non-financial agent to create additional scriptural money. This entry is made in exchange for a claim, i.e. in return for a promise of repayment at a later date.

- **Actors in money creation**

Money creation is the work of **commercial banks**, the **Central Bank** and the **Treasury**. Commercial banks create scriptural money: when a bank grants credit to a customer and pays the amount into his account, it increases both the assets (claim on the customer) and liabilities (customer's account) on its balance sheet. It creates money ex nihilo. On the other hand, one cannot speak of money creation when the financial institution lends resources that it has previously collected. The money creation of banks is the most important. The Central Bank, paradoxically, only creates relatively little money. Having a monopoly on the issue of banknotes, it makes them available to commercial banks in exchange for central bank money (bank current account) according to the needs of their customers. The creation of money by the Treasury is minimal. By managing the circuit of postal cheque accounts, the Treasury is led to pay certain government expenses by entry on these accounts, and thus to create scriptural money.

4. Financing the economy

Some of the economic agents (households, businesses, public administrations) have surplus funds in relation to the projects they wish to carry out. They are said to have a financing capacity. Other agents, on the contrary, do not have enough funds to finance their projects. They are said to have a need for funding. In practice, **the agents with financing capacity are households** and those with **financing needs are businesses**.

To finance themselves, officers in need of funding have two options. They can go directly to the financing capacity officers and ask them for funds: **this is direct finance**. Direct finance takes

place on the market. They can also go through an intermediary, most often a bank: this is **indirect finance or intermediated finance**. When direct finance predominates in the economy, we say that we are in a **market economy**. When intermediated finance predominates in the financing of the economy, we say that the economy is a **debt economy**.

Conclusion

Money is at the centre of the economic life of any nation; beyond the functions it fulfils, the role of money in economic activity is the subject of incessant debate.

Economic growth is subject to fluctuations and cycles. Some economic and monetary imbalances may be persistent. Inflation and unemployment are the main ills of countries.

1. Unemployment

Unemployment is a situation of **imbalance in the labour market**. **Work** is the set of physical and intellectual capacities that men use to produce the goods and services needed to satisfy their needs.

- **The labour market**

The labour market is defined as the place where **labour supply** meets **labour demand**. The supply of labour comes from households and depends on the labour force and working hours. The **labour force** is defined as all persons who are employed and those who are not employed, who wish to work and are actively seeking employment. **The labour force therefore includes both employed and unemployed persons**. **Working time** is the time spent by an employee in the production of goods and services. A distinction is made between the **legal working time** defined by law and the **actual working time**, which takes into account absenteeism, technical unemployment and overtime. The supply of labour also depends on the quality of the labour factor, which economists measure by **labour productivity**. Labour productivity is the ratio between the volume of production achieved and the volume of labour needed to produce it. The demand for labour is expressed by firms.

- **Definition of unemployment**

According to the ILO (International Labour Office), in order to be considered unemployed, three conditions are necessary:

- Being without work, i.e. not having worked even one hour during the reference week ;
- To be available for work in a salaried or non-salaried job;
- Looking for a job.

Unemployment is therefore the situation of people who are unemployed, looking for work, and available for work.

1.2. Theoretical conceptions of unemployment

- **Conventional unemployment or voluntary unemployment**

For the classical and neoclassical analysis and because of price flexibility, unemployment is linked to the deliberate willingness of economic agents not to work either because they find the pay insufficient or because they are looking for better paid work.

- **Keynesian unemployment or involuntary unemployment**

In Keynesian analysis, an economy can be sustainably underemployed if aggregate demand is less than aggregate supply. In this case, firms are willing to produce more, but do not do so because of *insufficient demand*. The equilibrium thus achieved is regressive and contributes to the creation of unemployment (known as **involuntary unemployment**). It is therefore unemployment that results from the slowdown in economic activity.

1.3. The different types of unemployment

- **Frictional unemployment**

Frictional unemployment is short-term unemployment, which is the time it takes to move from one job to another.

- **Short-term unemployment**

Short-term unemployment is linked to the economic slowdown

- **Structural unemployment**

Structural unemployment is that which is linked to changes in the structure of the economy such as the decline of traditional activities, the internationalisation of economies, the tertiarisation of activities etc.

- **Short-time working**

Short-time working corresponds to a forced reduction in working hours decided by the company for a limited period of time, particularly in the case of a temporary reduction in activity.

- **Technical unemployment**

Short-time working concerns a partial or total stoppage of work resulting from causes external to the company.

2. Inflation

- **Definition of inflation**

Inflation can be defined as a sustained and lasting rise in the general price level. It excludes both localised and transitory increases and assumes that the price increase is transmitted throughout the economy and is repeated in the following period.

- **Sources of inflation**

There are three sources of inflation: cost inflation, demand inflation, and money inflation. **Cost inflation** comes from an increase in production costs. **Demand inflation** results from an excess of demand over supply leading to a price increase in a market. **Monetary inflation results from an** excess of money creation, i.e. the circulation of a large quantity of money.

- **The consequences of inflation**

The first consequence of inflation is the erosion of the purchasing power of households, i.e. the quantity of goods and services they can buy decreases with inflation. Inflation erodes households' liquid savings and favours borrowers for whom the repayment burden is lower. Inflation also contributes to the deterioration of foreign trade. Indeed, when inflation occurs, domestic products are more expensive than imported products, which reduces exports at the expense of imports.

The State designates the legal person governed by public law which, in legal terms, represents a collectivity, a people or a nation, within or outside a given territory over which it exercises supreme power, sovereignty.

For the purposes of the *National Accounts*, the State refers to the institutional sector of general government (APU) whose main function is "*to produce non-market goods and services or to carry out operations to redistribute income or national wealth*".

Generally speaking, the state can be analysed in two ways. The first is to consider it as a benevolent organization that seeks to maximize the well-being of all, while at the same time enabling the reduction of inequalities. In this case, one can seek to measure its performance or explain what should be done to improve it. The second way of analyzing the state is to try to understand how it functions, and to understand how decisions are made by highlighting power relations, economic concerns, and conflicts of interest.

1. The changing role of the state

While the opposition between the police state and the welfare state reflects some of the debates of the 19th and 20th centuries, it should be recalled that public authority has never ceased to intervene in the economic and social sphere. The wars of 1914 and 1940, the economic crisis of 1929 and the recent financial crises gave new legitimacy to state intervention.

1.1. From the Gendarme State to the Welfare State

Liberal theorists assert that in a market economy, the state must be content to carry out its regalian missions; this is what has been called **the gendarme state**. But in the first half of the 20th century, economic and social intervention developed: the police state gave way to the **welfare state**.

- *The Gendarme State*

For a very long time, the main function of the state has been to maintain law and order in the nation, and in particular to ensure respect for the right to private property. This function was tantamount to providing the public authorities with the means to provide police, justice and national defence. As a result, the State budget was made up of expenditure related to these functions and the revenue, mainly from taxation, to finance them. This phenomenon was largely the result of the liberal conception of the role of the State, which in theory had no will of its own. Since the satisfaction of individual needs was normally achieved through market mechanisms, the state had to be content to

guarantee the rules of the market game and, if not, to have the means to punish those who violated them. In other words, it should limit itself to the role of a **police-state or even a minimal state**.

- *The welfare state*

In contrast, the term **welfare state** assigns to the state the duty to play an active role in stimulating economic growth, providing social protection and correcting social injustices. The term welfare state has several interpretations. First of all, it is a term that reflects an opposition between two currents of thought in the 19th century. On the one hand, liberals who assert the primacy of the individual and the risk of the state replacing Providence. On the other, republicans of the Second Empire who criticized the overly individualistic philosophy of certain laws and advocated a "social state" concerned with the general interest.

1.2. Richard Musgrave's typology of state functions (1959)

The American economist Musgrave (1910-2007), who wanted to draw up a typology of government intervention, considered that government action could be understood through three main functions: **allocation, redistribution** and **stabilisation** (or **regulation**).

- *The resource allocation function*

There are five main reasons for State intervention:

- the definition of rules and rights enabling markets to function ;
- the existence of increasing yields leading to the emergence of natural monopolies;
- when the market is unable to satisfy certain needs, in particular the production of collective goods and services;
- the multiplication of external effects linked to the activities of individuals (households, companies). Thus the State intervenes to regulate certain activities in a preventive way and prevent the possibility of nuisances (negative external effects) linked to certain fields of activity such as the discharge of waste and polluted water, the discharge of toxic gases into the air, etc. It is then said that the State obliges entrepreneurs to "internalise" costs that would otherwise have been discharged into the community;
- the regulation of the market for guardian goods. These are goods that the market spontaneously produces in sufficient quantities to satisfy the needs of agents, but for which

the public authority considers that it is necessary to intervene in the consumption of agents, so that they consume more (hygiene) or less (alcohol).

- ***The redistribution function***

It is a matter of social justice. By their very nature, liberalism and the market economy create inequalities in society. The State is led to reduce these inequalities by redistributing part of the national wealth created.

- ***The stabilization function***

This function targets the major macroeconomic objectives such as a high level of employment, moderate inflation, GDP growth... This relatively new function of the State requires appropriate means such as fiscal policy and monetary policy.

2. State intervention through economic policies

All economic policy consists of pursuing a number of objectives using specific instruments.

a. **The concept of economic policy**

Economic policy is defined as the set of decisions taken by government authorities to regulate economic activity. This definition shows that economic policy takes place within an interventionist framework contrary to Vincent de Gournay's (1712- 1759) "*laisser faire les hommes, laisser passer les marchandises*".

Four goals known as Kaldor's magic square (1957) constitute the objective of any economic policy, namely :

- Economic growth
- Full employment
- Price stability
- The external balance

2.2 Cyclical policy - structural policy

A distinction is made between **economic policy** and **structural policy**. Short-term economic policy aims to maintain or restore the major economic and financial balances in the short term. A structural policy aims to change the structures of the economy in the long term. The following table compares cyclical and structural policies

	Economic policy	Structural policy
Duration	Short term	Long term
Objective	Maintaining balances	Adaptation of structures
Effects	Quantitative	Qualifiers

2.3.Traditional instruments of economic policy

These are monetary policy and fiscal policy. Monetary policy is defined as the set of decisions taken by the monetary authorities to regulate the amount of money in circulation. It aims at the internal stability of money by regulating the money supply. In this respect, monetary policy oscillates between "neither too much" and "too little". Indeed, the quantity of money must be neither too much to avoid inflationary phenomena nor too little to allow transactions between economic agents to take place.

Budgetary policy is based on the elaboration of the State budget, which is none other than the forecast of all State revenue and expenditure for the year. The budget balance is an instrument of economic policy in that it affects economic activity. Indeed, from a Keynesian perspective, a budget deficit can help to revive economic activity thanks to the additional income distributed to economic agents. The resulting income growth will in turn increase tax revenues and reduce the budget deficit.

The difficulty posed by the budget deficit is that of financing it. In general, there are three main sources of financing, namely :

3. Debt financing
4. Financing through taxes
5. Financing through money creation

3. State intervention in the resolution of market failures.

In a market economy, **prices play a central role as a means of information, incentive and allocation**. First, they are a means of information for agents who are informed about the scarcity of different goods. Prices also play an incentive role insofar as any price change will in fact lead

consumers and producers to modify their supply or demand. Finally, prices ensure the equilibrium of markets and the smooth functioning of transactions.

But there are "priceless markets", and in this case we are talking about market failures. A **market failure** occurs when the market is unable to set prices and ensure the optimal allocation of resources. Two cases are particularly well known: **externalities and public goods**.

4. **Externalities**

Externalities exist when interactions between economic agents take place, leading to advantages or disadvantages that are not taken into account by the market and therefore by the price system. There are two types of externalities, namely **positive externalities** and **negative externalities**, which respectively reflect an improvement or a deterioration in the situation of economic agents.

Positive externalities include improvements in the road system, improved training of individuals and the spillover effects on companies that have not specifically funded these activities. The situations of negative externalities are diverse and include the phenomenon of pollution that market mechanisms are powerless to stop.

In the various scenarios, the State is required to intervene to offset these market failures by promoting the internalisation of these externalities. In the case of negative externalities, the State may impose a tax, for example on the polluter to encourage agents to reduce negative externalities. In the case of positive externalities, the state intervenes through subsidies. Some neo-classical economists are hostile to state intervention and instead advocate the distribution of property rights.

5. **Collective property**

A collective good is a good that respects the conditions of **non-exclusion** and **non-rivalry**. **The notion of non-exclusion** is often defined as the fact that it is impossible or technically very costly to deny access to this good or service to those who wish to benefit from it (roads; public lighting, etc.). **The notion of non-rivalry** is associated with the fact that the consumption of the public good by one agent does not prevent the consumption of the same good by other agents. The good is said to be "**indivisible**" or not destroyed by consumption. Goods with this dual characteristic are more often taken over by the State because it is difficult if not impossible to charge a price to a given consumer in order to benefit from them; this in turn discourages private enterprises from producing them. The State is thus led to ensure the financing of the production of this type of goods. Public goods then become public goods. They concern education, defence, etc., among others. It should be stressed that there is not always equality between collective and public goods. Thus, education

classified as a public good is perfectly divisible, hence the fact that its production can be provided by the private sector.

Conclusion

Is state intervention in the economic sphere necessary? This question opposes liberal and Keynesian conceptions. For the former, the state should not intervene and limit itself to playing a policing role. For the latter, the state has an active role to play in economic activity. In this context, the allocation of resources, redistribution and stabilisation are the functions of the state. The last function refers to the role of the state in economic policy. Finally, the state can have a role in the provision of public goods and the resolution of externalities.

International economic trade includes the exchange of goods, services, capital and currencies between countries. International trade is traditionally considered to be limited to trade in goods and services only; trade in capital and currency, on the other hand, constitutes financial flows.

1. The balance of payments

The balance of payments is an account that records the transactions and settlements (of an economic and financial nature) made during a period (usually a year or a quarter) between residents of one country and residents of other countries. The balance of payments therefore records all flows between residents and non-residents during a given period. Economic and financial flows between residents and non-residents are broken down in the balance of payments by distinguishing between the **current account** or **current account**, the **capital account** and the **financial account**.

The current account records all trade in goods and services with the rest of the world. It is divided into four categories or four partial balances, namely the balance of **goods** or **trade balance**, the balance of **services** or **balance of invisibles**, the **balance of factor income** or **compensation**, the balance of **grants and unilateral transfers**.

The financial account records the different types of cash flows. In the financial account, a distinction is made between **direct investment flows**, **portfolio investment flows**, and borrowing flows between resident and non-resident economic agents. Foreign direct investment corresponds to the creation or partial or total takeover of enterprises abroad. Capital increases are also considered direct investment. Portfolio investment is the purchase or sale of securities (shares and bonds) between resident and non-resident agents with the aim of realising a capital gain or recovering dividends.

The capital account mainly records capital transfers. These are unilateral transfers in the sense that they have no counterpart. They are usually debt write-offs and credit losses granted to these countries.

2. Theories of international exchange

Does international trade benefit countries that trade with each other? Liberal economists, who are proponents of **free trade**, believe that international trade is beneficial. **Free trade** is an economic

doctrine that seeks to limit barriers to the movement of goods, services and capital between national economies. Others, on the contrary, argue that international trade does not always benefit those who engage in it and are advocates of **protectionism**. **Protectionism** is an economic doctrine that aims to limit access to the domestic market for foreigners.

2.1. Liberal explanations of international trade

What justifies the existence of trade in goods and services between nations? The first explanation results from the unequal endowment of natural factors between nations. The classical authors (Adam Smith, David Ricardo) of economic analysis justify international trade in the name of the optimal allocation of resources at the global level.

The theories put forward to explain international trade are:

- **Adam Smith's (1776) theory of absolute advantages**; each country has an interest in specializing in those productions in which it has an absolute advantage over other nations. An **absolute advantage** is therefore an advantage obtained, in international trade, by a nation when it sells at a lower price than competing nations.
- **David Ricardo's theory of comparative advantage (1817)**; nations without an advantage must specialize in productions for which they are at a disadvantage. A **comparative advantage** is an advantage obtained, in international trade, by a nation when, in comparison with other goods, its disadvantage on a good, in terms of cost and selling price, is less.
- The theory of **factor endowments of Hecksher (1919), Ohlin (1933) and Samuelson (1954)**; according to the **HOS theorem** or **law of factor endowments**, nations must specialize in manufactures that incorporate the most important factor of production. Thus, developing countries would export labour-intensive products, while developed countries would export capital-intensive goods.
- **Linder's (1961) theories of "representative demand"**; Linder considers that a country may have built up a comparative advantage through the existence of a large domestic demand (large domestic market)
- **Lassudrie-Duchêne's (1971) "demand for difference"** theories; if the cross-trade involves similar products, they are not strictly identical but benefit from a "quality of difference". Participating in international trade thus improves the satisfaction of consumers who can choose between many varieties of a good and also broadens the potential market for firms.

- New theories of international trade that focus on **increasing returns** and **product differentiation**.

2.2. Protectionist policies

Protectionism is based on the idea that free trade does not always lead to increased wealth. There are a number of protectionist practices. These are divided into tariff and non-tariff measures. A tariff barrier is a customs barrier whose objective is to limit the entry of foreign products into the national territory by increasing customs duties. Non-tariff barriers include the following:

- **Export subsidies**; An export subsidy is a government aid paid to a company that sells a portion of its production abroad.
- **import quotas**; An import quota is a legal limit on the quantities imported.
- **Voluntary export restrictions**; This is a quota on trade imposed not by the importing country but by the exporting country.
- **local content rules**; Under the local content rule, a given fraction of a final good sold in a country must be produced in the national territory.

3. Exchange rates

If households want to travel outside the CEMAC zone, you will need to exchange your CFAs for Euros, Pounds Sterling, Dollars or another currency depending on your destination. The same is true for businesses. If an importer wants to buy machine tools from Japan, for example, he will need to get yen to pay his supplier. It is therefore important for different economic agents to know the value of one currency in terms of another. This value is given by the **exchange rate**. The exchange rate is the relative price of one currency to another. In other words, the exchange rate between the Euro and the CFA is the number of CFAs that must be sold to buy one Euro. In general, there are two exchange rate regimes: **the fixed exchange rate regime** and **the flexible exchange rate regime**. In a **fixed exchange rate regime**, national governments agree to maintain the convertibility of their currency at a fixed rate. In a **floating exchange rate regime**, the exchange rate fluctuates freely through the interplay of supply and demand without any central bank intervention.