

Unit 1

What Is Economics?

Learning Objectives

After studying this unit, you should be able to:

- 1) have a general understanding of the subject of economics;
- 2) use the words and phrases in this unit;
- 3) illustrate the achievements of economic development since China's Reform and Opening-Up.



Economics, often referred to as the “**dismal**^① science^②”, is anything but dismal. It is a fascinating field of study that helps us understand how individuals, businesses, and societies make decisions on how to **allocate** resources to satisfy their wants and needs. Economics provides a framework for analyzing and understanding a wide range of issues, from personal finance to global trade, and examining the complexities of the **production**, **distribution**, and **consumption** of goods and services, as well as the factors influencing these processes. In other words, it involves issues of what to produce, how to produce, and for whom to produce. Economics analyzes the **costs** and benefits of different **alternatives** and how they affect human well-being. In this unit, we will explore the fundamental concepts, theories, and applications of economics, shedding light on its relevance and significance in our everyday lives.

1.1 An Overview of Economics

Economics has a long and varied history, with its roots arguably going back to ancient times. Early civilizations had to manage resources and trade, forming very basic economic systems. However, economics, as we know it today, began to emerge in the late 18th century. The **publication** of Adam Smith’s^③ *An Inquiry into the Nature and Causes of the Wealth of Nations* in 1776 is often considered the starting point of modern economics. In the following centuries, other notable economists made significant contributions by addressing various economic aspects.

1.1.1 Branches of Economics

Economics can be broadly categorized into two main branches: **microeconomics** and **macroeconomics**.

Microeconomics studies the individual economic **agents**, such as consumers, producers, and single **markets**, by analyzing their behavior, decision-making processes, and interactions within specific markets. Key topics in microeconomics include **supply** and **demand**, consumer choice theory, production theory, and **market structure** (perfect competition, **monopolies**, etc.).

Macroeconomics, on the other hand, looks at the economy as a whole,

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- ① 全书加粗的表示生词，在全书最后的 Glossary 中列出；灰底的为术语，在全书最后的 Terms 中列出。
 - ② dismal science: a derogatory term coined by Scottish essayist, historian, and philosopher Thomas Carlyle to indicate that economics is a dreary, abject, and distressing discipline.
 - ③ Adam Smith (1723–1790): Scottish social philosopher and political economist.

focusing on **aggregate** measures such as **national income**, **unemployment**, **inflation**, and **economic growth**. It explores the interrelationships between various **sectors** such as households, businesses, and the government. Macroeconomic theories include Keynesian economics, **monetarism**^①, the neoclassical synthesis^②, and others.

There exists a large number of sub-disciplines in economics, such as **development economics**, **international economics**, **monetary economics**, **environmental economics**, etc. Each of these sub-disciplines applies economic principles or tools from microeconomics or macroeconomics to explain and deal with specific problems in their respective fields. Just to mention some of them:

Development economics: It examines the economic aspects of the development process in low-income countries. It looks at poverty, inequality, foreign aid, and strategies for sustainable development.

International economics: This sub-discipline focuses on economic interactions between countries, including trade, investment, and currency exchange. It analyzes the benefits of trade, exchange rates, **balance of payments**, and the impact of **globalization** on economic growth and development.

Monetary economics: It concerns the study of the functions and management of a country's **money supply**, **interest rates**, and credit conditions by a central bank to regulate inflation, stabilize the economy, and support economic growth. Central banks use tools such as open market operations, **reserve requirements**^③, and interest rate **rediscounts** to achieve their objectives.

Environmental economics: It is concerned with environmental issues, focusing on the economic effects of environmental policies and the impact of the economy on the environment. It seeks to understand how economic policies and market **mechanisms** can be employed to address environmental challenges such as pollution, climate change, and resource **depletion**.

Econometrics: This sub-discipline uses statistical and mathematical tools to test **hypotheses** and estimate the relationships between economic **variables**. It often serves as a basis for economic forecasting.

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- ① monetarism: a school of economic thought which maintains that the money supply is the chief determinant on the demand side of short-run economic activity.
 - ② neoclassical synthesis (also referred to as the neo-Keynesian theory): an economic theory which suggests that markets aren't self-regulating and can be below full employment for a considerable time.
 - ③ reserve requirements: the amount of funds that a bank holds in reserve to ensure that it can meet liabilities in case of sudden withdrawals.

Economics also **intersects** with other disciplines such as political science, psychology, sociology, and history, giving rise to interdisciplinary fields such as political economics, historical economics, and socioeconomics. Each offers a unique perspective and analytical **toolkit** for understanding various economic issues and phenomena.

1.1.2 Core Principles of Economics

In a world with limited resources but unlimited desires and needs, we are always faced with the question: How do we make decisions that will **optimize** our well-being? Economics provides, but is not limited to, the following core principles to answer the question above.

Principle 1. The foundation of economics lies in the concept of **scarcity**. Resources such as **labor**, **land**, **capital**, and time are limited in supply, while human desires are infinite. As a result, individuals and societies face the everlasting challenge of choosing how to best utilize their scarce resources to satisfy their needs and wants. For instance, in a drought-stricken area where water is drastically in short supply and cannot meet the needs of all residents, agriculture, and businesses, the community has to make tough choices: Do they **prioritize** drinking water, maintain crops, or support industries?

Principle 2. The benefits an individual could have received by taking an alternative action are the **opportunity costs** of the action he/she did take. In other words, by allocating resources to one particular use, individuals or firms must give up the next best alternative. If a person decides to go to a postgraduate program instead of working, his/her opportunity cost is the money he/she would have earned if he/she worked instead of taking a further education. Understanding opportunity cost helps evaluate the efficiency and effectiveness of decision-making.

Principle 3. People respond to **incentives**, and changes in incentives can influence people's behavior. For instance, offering tax incentives for **solar panel** installations may encourage homeowners to invest in renewable energy, reducing their reliance on fossil fuels.

Principle 4. Competitive markets tend to allocate resources efficiently, leading to lower prices and better products. As Adam Smith put it, firms and households' **interplay** in markets acts as if they are controlled by an "invisible hand" that guides them to desirable market outcomes. For instance, the smartphone market is highly competitive, leading to innovation, lower prices,

and a wide range of choices for consumers.

Principle 5. Trade allows individuals and nations to specialize in producing what they are most efficient at and exchange goods and services, leading to mutual benefit. International trade allows countries to export products they can produce efficiently and import those they cannot, enhancing overall economic welfare. For example, Country A has a highly efficient **pharmaceutical** industry with advanced technology and skilled scientists, whereas Country B has a well-developed agricultural sector with a **surplus** of raw materials used in drug production. In exchange, Country A exports pharmaceutical products to Country B, which benefits the latter by improving healthcare. Country A's pharmaceutical industry grows, creating jobs and generating **revenue**, while Country B's agricultural sector flourishes, leading to economic growth as it exports raw materials and receives pharmaceuticals.

Principle 6. Households and firms make the best decisions through **marginal** analysis. Marginal analysis refers to the process of analyzing the additional benefits and costs of an action. It is used to determine whether the benefits of an action **outweigh** the costs and whether the action should be taken. For example, if a firm considers producing an additional unit of a product, it will use marginal analysis to determine whether the additional revenue generated by selling the unit will be greater than the additional cost of producing it.

Principle 7. Governments can influence economic outcomes through policies such as taxation, regulation, and **fiscal** stimuli. For example, during an economic **recession**, the government decides to increase its spending on various projects and programs. This could include investing in infrastructure projects like building roads and bridges, as well as funding education, healthcare, and research initiatives. Increased government spending injects money into the economy.

In summary, these principles are fundamental building blocks for understanding how individuals, businesses, and societies make decisions in the face of limited resources. The interplay between these principles influences economic outcomes and shapes policy recommendations.

1.1.3 Types of Economic Systems

Economic systems are the ways that societies organize the production, distribution, and consumption of goods and services. There are three main types of economic systems: the **market economy**, **command economy**, and **mixed economy**.

The essence of a market economy is that its resource allocation is determined by the market. In this market, prices and quantities of goods or factors of production are jointly determined by the forces of supply and demand, rather than excessive intervention by government administrative powers. The market economy is not confined to a single model; instead, it is intricately linked to the history, culture, and current national conditions of each country, therefore, different nations have developed distinct market economy systems. Currently, the majority of countries worldwide adopt some form of a market economy. Among them, developed countries such as the United States, Germany, France, and Japan, have relatively mature market economy models. China is actively developing towards a high-level socialist market economy system.

A command economy, also known as a planned or centrally planned economy, is based on public **ownership** of resources and centralized planning. In a command economy, prices are set by the government or a central authority, which also decides what, how, and for whom to produce. Command economies aim to achieve specific economic and social objectives. Historically, the Soviet Union and some Eastern European countries had this system.

A mixed economy differs from a mixed ownership economy in that it is not centered on a state or private ownership of resources but on **delineating** the boundaries between the market and the government. It combines the “invisible hand” of the market with the “visible hand” of the government, **leveraging** the market to **stimulate** economic **vitality** and optimize resource allocation, while the government **intervenes** to address market failures in **public goods** provision. Most countries have mixed economies, with varying degrees of market freedom and government intervention.

1.2 An Overview of Microeconomics

1.2.1 Key Concepts of Microeconomics

Microeconomics derives its name from the Greek **prefix** “micro-”, meaning “small”. As the name suggests, microeconomics studies the behavior of individual units within the economy. This could include understanding how a consumer makes decisions about what to buy within a limited budget, or how a firm decides the price and quantity of goods to produce given production **constraints**. The following are some key concepts in microeconomics.

Maximization: Maximization refers to the process in which individuals or

firms make choices to achieve their goals or objectives while facing constraints. In microeconomics, there are two common types of maximization: **profit maximization** for firms, and **utility** maximization for consumers. A firm aims to maximize its profit, which is the difference between the total revenue and **total cost**. For example, a small bakery may decide how many pastries to produce each day to maximize its daily profit by considering factors like ingredient costs, labor costs, and the selling price of pastries. In the case of utility maximization, consumers aim to maximize their utility, which represents their satisfaction or well-being from consuming goods and services. Consider a consumer deciding how much of their income to spend on various goods, like food and clothing, to maximize their overall satisfaction.

Equilibrium: Equilibrium is a state in which there is no tendency for change because supply equals demand. In microeconomics, two types of equilibrium are commonly discussed: **market equilibrium** and firm equilibrium. In a competitive market, the **equilibrium price** and quantity occur where the **supply** and **demand curves** intersect. For example, in the market for smartphones, the equilibrium price and quantity are determined by the point at which consumers are willing to buy the same quantity that producers are willing to supply. For a firm, equilibrium occurs when it produces the quantity at which its **marginal cost** (the cost of producing one more unit) equals its **marginal revenue** (the additional revenue from selling one more unit). This ensures that the firm maximizes its profits.

Efficiency: Efficiency in microeconomics refers to the allocation of resources that maximizes overall well-being or benefits. There are two types of efficiency: allocative efficiency and productive efficiency. The former occurs when resources are allocated in a manner that maximizes the total **consumer and producer surplus**. In a perfectly competitive market, allocative efficiency is achieved because prices reflect the true value consumers place on goods and the true cost of production for firms. Productive efficiency occurs when goods are produced at their lowest possible cost. For instance, an automobile manufacturer achieves productive efficiency by minimizing the cost per car produced through efficient production techniques.

1.2.2 Core Theories of Microeconomics

In microeconomics, the following core theories reveal the operation of the world from a particular perspective:

Consumer choice theory: This theory explains how consumers make

decisions to allocate their resources (income) among various goods and services to maximize their utility. The concepts of **indifference curves** and **budget constraints** are central to this theory.

Theory of production: This examines how firms **convert** inputs (such as labor and capital) into outputs. It involves concepts such as the **production function**^①, **marginal product**, and **returns to scale**.

Cost theory: It focuses on understanding how firms **incur** production costs and how these costs influence production levels. It introduces notions such as **average cost**, **marginal cost**, and **economies of scale**^②.

Theory of market structure: Market structure refers to the characteristics of a market that affect the behavior and performance of firms in that market. Different types of market structures exist, such as perfect competition, **monopoly**, **monopolistic competition**, and **oligopoly**. The market structure affects the price, output, profit, efficiency, and innovation of firms in a market.

Theory of market failure: Markets sometimes fail to produce efficient outcomes. The reasons can be **externalities** (when the actions of one party affect another), public goods (non-excludable and non-rival goods), and **information asymmetry**.

Microeconomics, far from purely theoretical, has many real-world applications. Firms use microeconomic principles to make crucial decisions about pricing, production levels, and capital investment; governments employ microeconomics when considering policies such as **minimum wage**, taxes, and **subsidies**; and by understanding how individuals make health-related decisions, policymakers and healthcare providers can **devise** effective strategies and policies. Thus, microeconomics provides invaluable insights into the **intricate** mechanisms driving individual decision-making processes within a larger economic framework. With deeper exploration into this discipline, people can find that seemingly abstract concepts often find very **tangible** manifestations in the world, making microeconomics not just a subject of academic interest but also a tool to interpret and shape economic realities.

① production function: an equation that expresses the relationship between the quantities of productive factors (such as labor and capital) used and the number of products obtained.

② economies of scale: the relationship between the size of a plant or factory and the lowest possible cost of a product. When a plant or factory increases output, a reduction in the average cost of a product is usually obtained.

1.3 An Overview of Macroeconomics

1.3.1 Key Concepts of Macroeconomics

Macroeconomics is the **counterpart** to microeconomics. Derived from the Greek prefix “macro-”, meaning “large”, macroeconomics investigates the behavior, decision-making, and performance of an economy as a whole.

Macroeconomics holds the following key concepts:

Gross domestic product (GDP): As one of the most critical indicators of macroeconomics, GDP represents the total value of all the goods and services produced in a country over a specific period. It is used to assess a nation's economic health and performance.

Inflation: It refers to a rise in price, leading to a decrease in the **purchasing power** of money. Moderate inflation is considered normal and healthy for an economy; however, high or **hyperinflation** can **erode** purchasing power and create economic instability.

Unemployment: As a key **metric** for any economy, this **denotes** the percentage of the labor force that is jobless but actively seeks employment. High levels of unemployment can lead to economic inefficiency and social problems.

Business cycle: The business cycle is the periodic **fluctuation** of economic activity around a long-term trend. The business cycle consists of four phases: expansion, peak, **contraction**, and **trough**, which refer to the different periods of economic activity in a cycle.

Fiscal policy: Fiscal policy relates to taxation and spending utilized by the government to influence macroeconomic conditions. It aims to achieve macroeconomic objectives such as economic growth, employment, and price stability.

Monetary policy: It refers to actions undertaken by a nation's central bank to control the supply of money, primarily through interest rates, to achieve macroeconomic objectives such as economic growth, employment, and price stability.

Aggregate demand and **aggregate supply**: Macroeconomists study the relationship between aggregate demand (total demand for goods and services in an economy) and aggregate supply (total production of goods and services in an economy). The equilibrium between these two factors determines the overall economic activity level.

Balance of payments: This refers to a record of all **transactions** between residents of a country and the rest of the world, showing how much a country is earning from its exports versus spending on its imports.

Economic growth: Economic growth indicates an increase in a country's **real GDP** over time. Sustained economic growth is essential for raising the standard of living and improving a nation's overall well-being.

1.3.2 Core Theories of Macroeconomics

Macroeconomics encompasses the following core theories:

Classical theory: Rooted in the idea of a self-regulating economy where markets automatically adjust to achieve equilibrium. It assumes that in the long run, the economy will naturally reach full employment without government intervention.

Keynesian economics: Proposed by John Maynard Keynes^①, this theory suggests that in the face of economic **downturns**, active government intervention can stabilize the economy. It emphasizes the importance of aggregate demand in driving economic activities.

Monetarism: Advocated by Milton Friedman^②, it emphasizes the importance of controlling the money supply to combat inflation. Monetarists believe that inflation is primarily a result of excessive growth in the money supply.

Supply-side economics: This theory **posits** that by reducing barriers to production (such as taxes and regulations), producers can produce more, leading to greater economic growth.

Macroeconomics has many applications in real-world **scenarios**. Governments and policymakers employ macroeconomic principles to design both short- and long-term economic policies; macroeconomics helps nations find the right way in the complex world of international trade, **exchange rates**, and global finance; businesses and governments alike use macroeconomic models and indicators to **anticipate** future economic conditions; in the case of economic crises, macroeconomic tools and theories will play a **pivotal** role in devising responses to major economic downturns.

① John Maynard Keynes (1883–1946): British economist, best known as founder of Keynesian economics and the father of modern macroeconomics.

② Milton Friedman (1912–2006): American economist and educator, one of the leading supporters of monetarism in the second half of the 20th century. He was awarded the Nobel Prize for Economics in 1976.