ECON 206

Chapter 1

INTRODUCTION

Macroeconomics is concerned with the behavior of the economy as a **whole**—with booms and recessions, the economy's total output of goods and services, the growth of output, the rates of inflation and unemployment, the balance of payments, and exchange rates.

Macroeconomics deals with both long-run economic growth and the short-run fluctuations that constitute the business cycle.

Macroeconomics focuses on the economic behavior and policies that affect consumption and investment, the dollar and the trade balance, the determinants of changes in wages and prices, monetary and fiscal policies, the money stock, the budget, interest rates, and the national debt.

What Is Macroeconomics?

Macroeconomics is the study of the behavior of the economy as a whole and the policy measures that the government uses to influence it.

Some key issues in macroeconomics

- Inflation
  - the rate of change of the general price level
- Unemployment
  - a measure of the number of people looking for work, but who are without jobs
- Output
  - real gross national product (GNP) measures total income of an economy
    - it is closely related to the economy's total output

- Economic growth
  - increases in real GNP, an indication of the expansion of the economy's total output
- Macroeconomic policy
  - a variety of policy measures used by the government to affect the overall performance of the economy

Growth and GDP

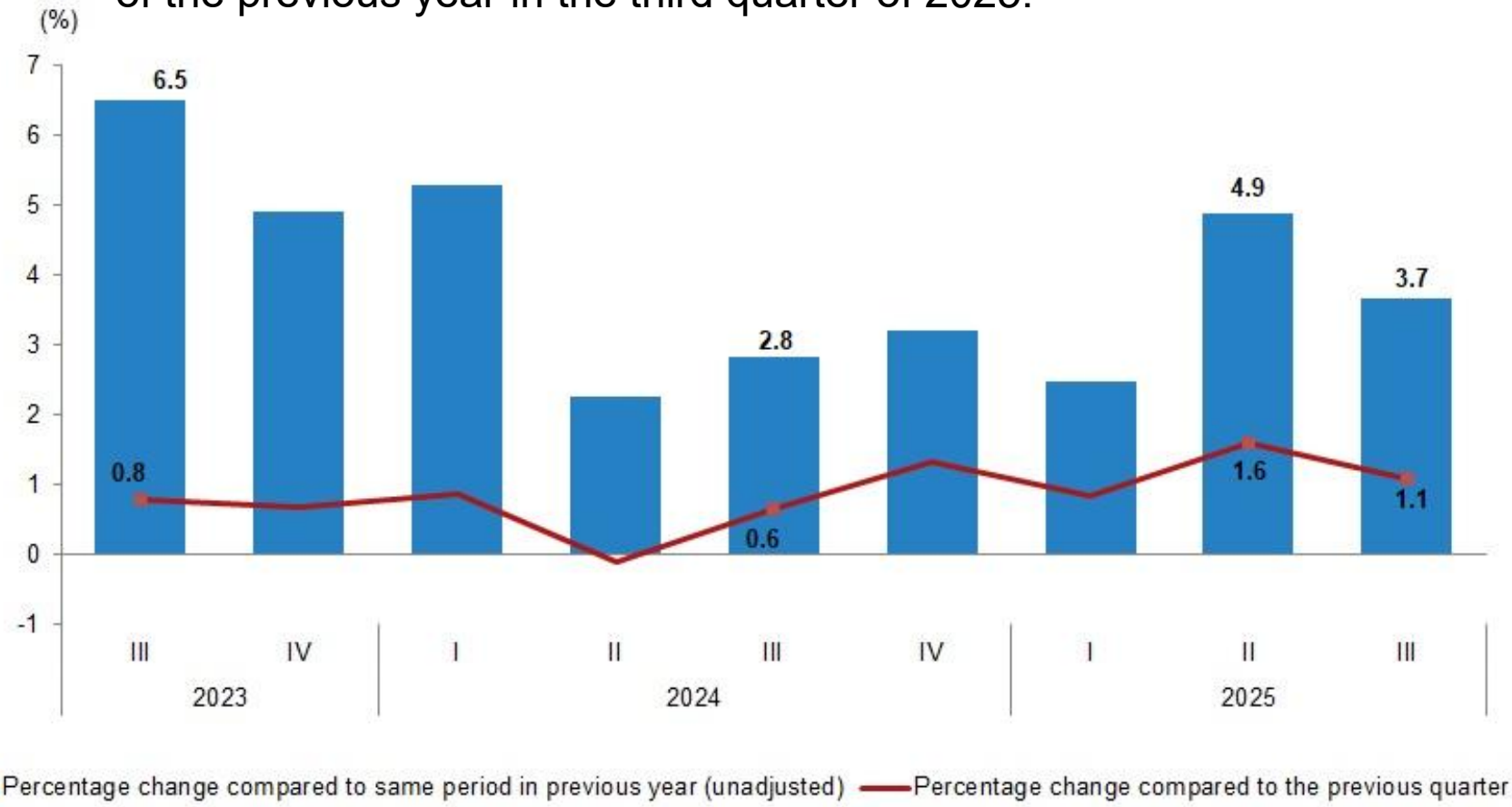
The ***growth rate*** of the economy is the rate at which the gross domestic product (GDP) is increasing. On average, most economies grow by a few percentage points per year over long periods.

$$\frac{\text{Real GDP}_{\text{current year}} - \text{Real GDP}_{\text{previous year}}}{\text{Real GDP}_{\text{previous year}}} \times 100$$

$$= \frac{\$\ 1\ 493\ 171 - \$\ 1\ 451\ 824}{\$\ 1\ 451\ 824} \times 100$$

$$= 2.8\%$$

Seasonally and calendar adjusted GDP with chain linked volume index (2009=100) increased by 1.1% compared with previous quarter. Calendar adjusted GDP with chain linked volume index (2009=100) increased by 3.4% compared with the same quarter of the previous year in the third quarter of 2025.



Source: TÜİK

What causes GDP to grow over time?

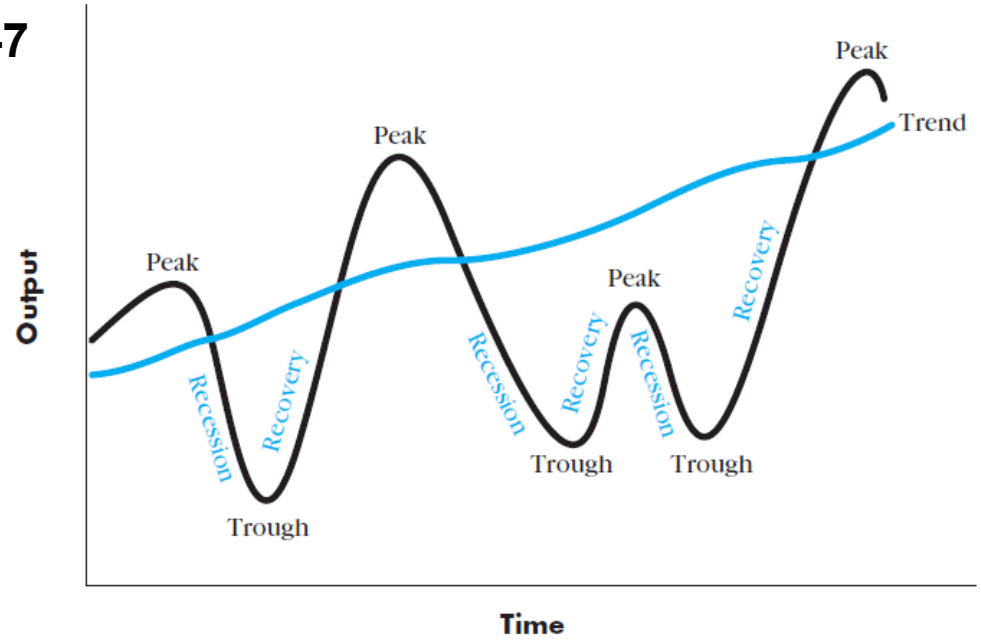
1) The first reason GDP changes is that the available amount of resources in the economy changes. The principal resources are capital and labor. The labor force, consisting of people either working or looking for work, grows over time and thus provides one source of increased production. The capital stock, including buildings and machines, likewise rises over time, providing another source of increased output. Increases in the availability of factors of production—the labor and capital used in the production of goods and services—thus account for part of the increase in GDP.

2) The second reason GDP changes is that the efficiency of factors of production may change. Efficiency improvements are called ***productivity*** increases. Over time, the same factors of production can produce more output. Productivity increases result from changes in knowledge, as people learn through experience to perform familiar tasks better, and as new inventions are introduced into the economy.

The Business Cycle and the Output Gap

Inflation, growth, and unemployment are related through the business cycle. The ***business cycle*** is the more or less regular pattern of expansion (recovery) and contraction (recession) in economic activity around the path of trend growth. At a cyclical peak, economic activity is high relative to trend; at a cyclical trough, the low point in economic activity is reached. Inflation, growth, and unemployment all have clear cyclical patterns. For the moment we concentrate on measuring the behavior of output or GDP relative to trend over the business cycle.

Figure 1-7



The gold line in Figure 1-7 shows the ***trend path of real GDP*** . The trend path of GDP is the path GDP would take if factors of production were fully employed.

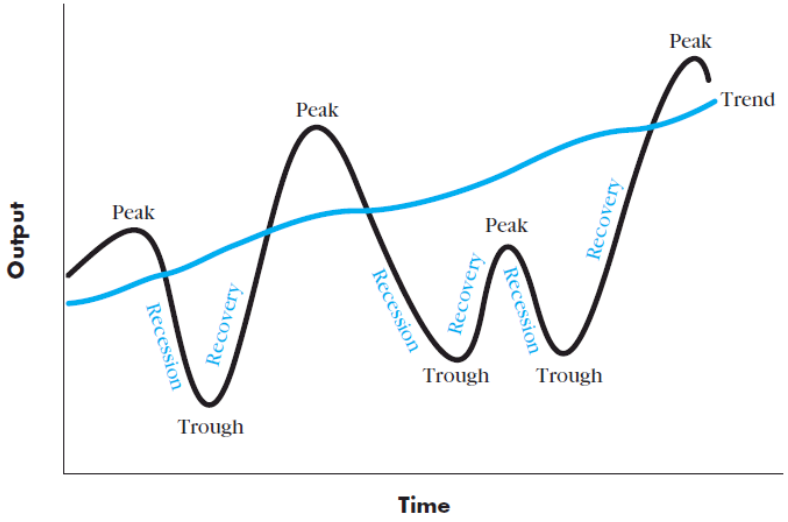
Over time**, GDP changes for the two reasons** we already noted.

1) More resources become available: The size of the population increases, firms acquire machinery or build plants, land is improved for cultivation, the stock of knowledge increases as new goods and new methods of production are invented and introduced. This increased availability of resources allows the economy to produce more goods and services, resulting in a rising trend level of output.

2) Factors are not fully employed all the time. Full employment of factors of production is an economic, not a physical, concept. Physically, labor is fully employed if everyone is working 16 hours per day all year. In economic terms, there is full employment of labor when everyone who wants a job can find one within a reasonable amount of time. Because the economic definition is not precise, we typically define full employment of labor by some convention, for example, that labor is fully employed when the unemployment rate is 5 percent. Capital similarly is never fully employed in a physical sense; for example, office buildings or lecture rooms, which are part of the capital stock, are used only part of the day.

Output is not always at its trend level, that is, the level corresponding to (economic) full employment of the factors of production. Rather, output fluctuates around the trend level.

During an expansion (or recovery) the employment of factors of production increases, and that is a source of increased production. Output can rise above trend because people work overtime and machinery is used for several shifts. Conversely, during a recession unemployment increases and less output is produced than could in fact be produced with the existing resources and technology. The wavy line in Figure 1-7 shows these cyclical departures of output from trend. Deviations of output from trend are referred to as the ***output gap***.

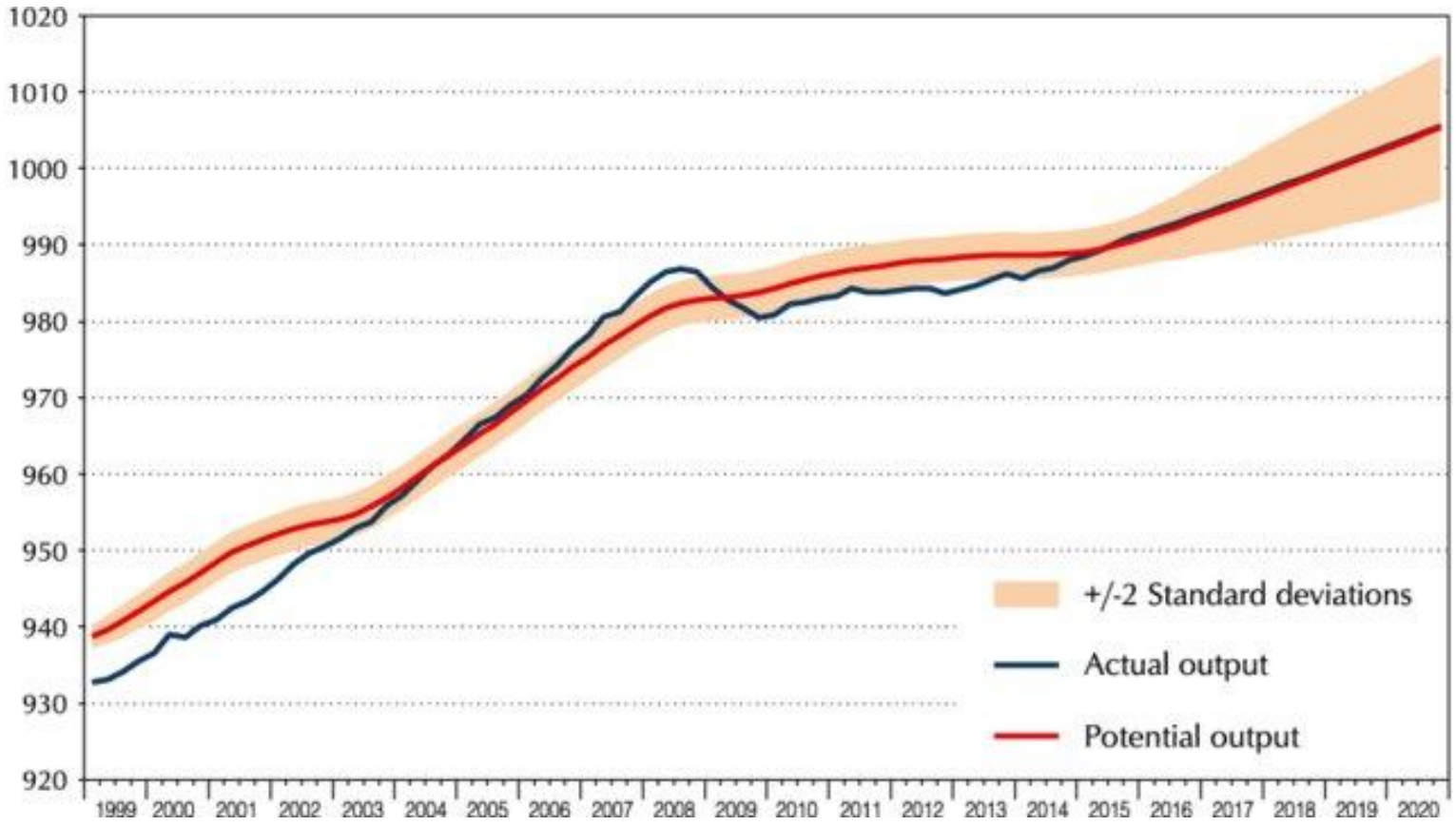


The ***output gap*** measures the gap between actual output and the output the economy could produce at full employment given the existing resources. ***Full employment output is also called potential output .***

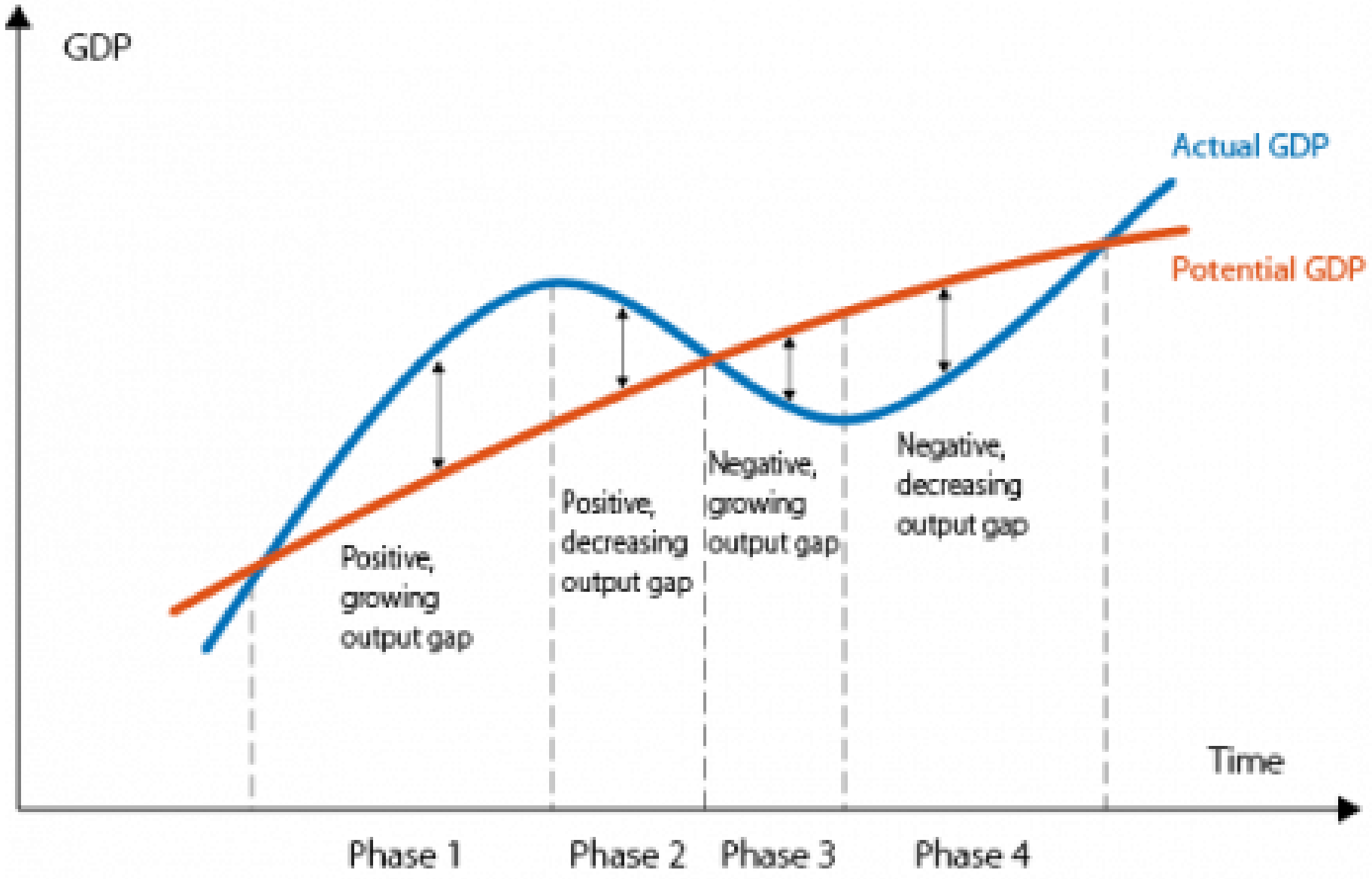
Output gap = actual output - potential output

The output gap allows us to measure the size of the cyclical deviations of output from potential output or trend output.

Example: Actual and Potential Output



The four phases of an economic cycle



Source: *Own chart.*

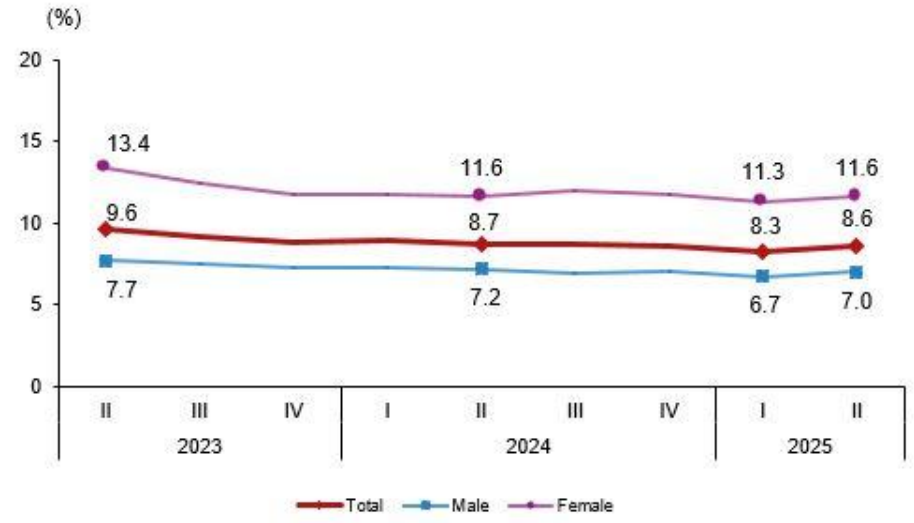
UNEMPLOYMENT

Unemployment, according to the OECD (Organisation for Economic Co-operation and Development), is persons above a specified age (usually 15) not being in paid employment or self-employment but currently available for work during the reference period.

Unemployment is measured by the unemployment rate, which is the number of people who are unemployed as a percentage of the labour force (the total number of people employed added to those unemployed)

According to Household Labour Force Survey; the number of unemployed persons aged 15 years old and over increased by 106 thousand to 3 million 34 thousand persons in the second quarter of 2025 compared to the previous quarter. As the unemployment rate estimated 8.6% with 0.3 percentage point increase compared to the previous quarter; it was estimated 7.0% for men and 11.6% for women.(Source: Turkish Statistical Institute)

Unemployment rate, Quarter II: April-June, 2025



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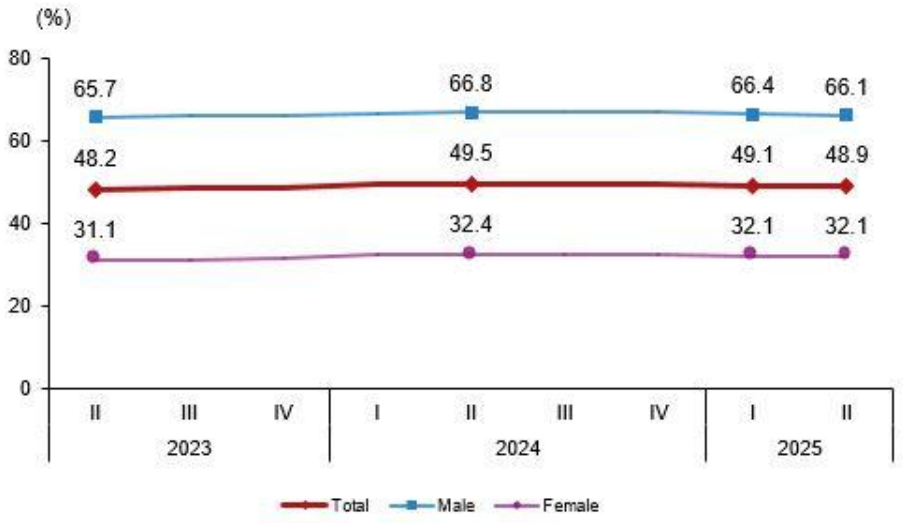


Inflation and the Business Cycle

Increases in inflation are positively related to the output gap. Expansionary aggregate demand policies tend to produce inflation, unless they occur when the economy is at high levels of unemployment. Expanded periods of low aggregate demand tend to reduce the inflation rate.

The inflation measure is the rate of change of the consumer price index (CPI) , the cost of a given basket of goods representing the purchases of a typical urban consumer.

A ***consumer price index*** measures changes in the price level of a weighted average market basket of consumer goods and services purchased by households.

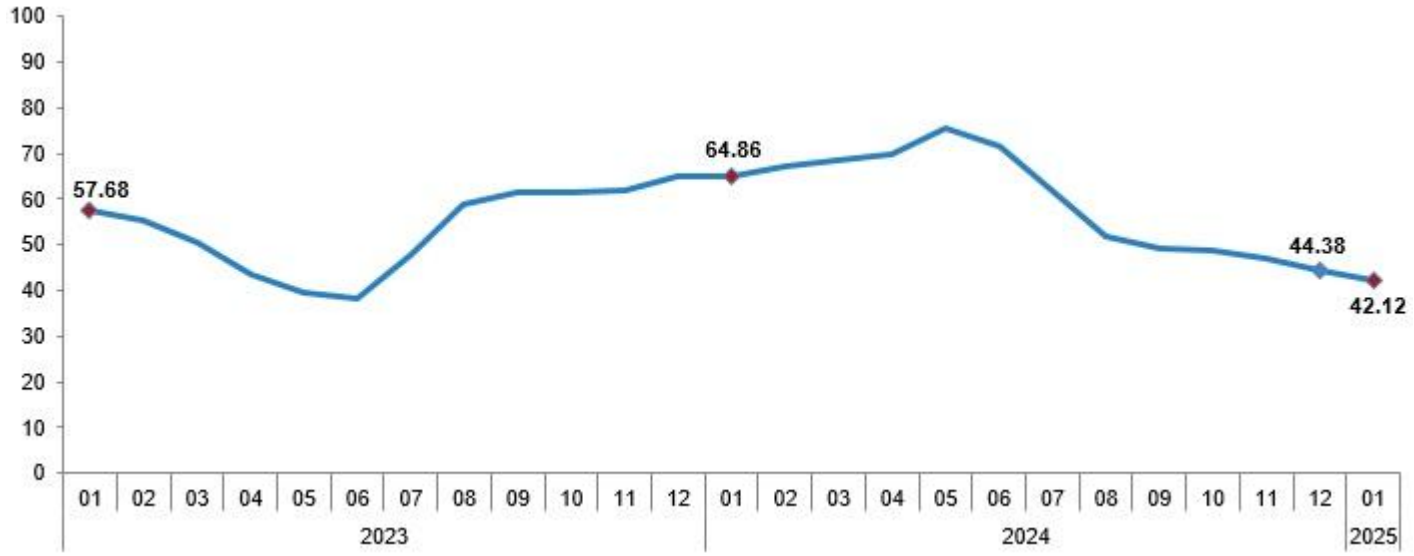
Inflation, like unemployment, is a major macroeconomic concern. However, the costs of inflation are much less obvious than those of unemployment.

In the case of unemployment, potential output is going to waste, and it is therefore clear why the reduction of unemployment is desirable.

In the case of inflation, there is no obvious loss of output. It is argued that inflation upsets familiar price relationships and reduces the efficiency of the price system.

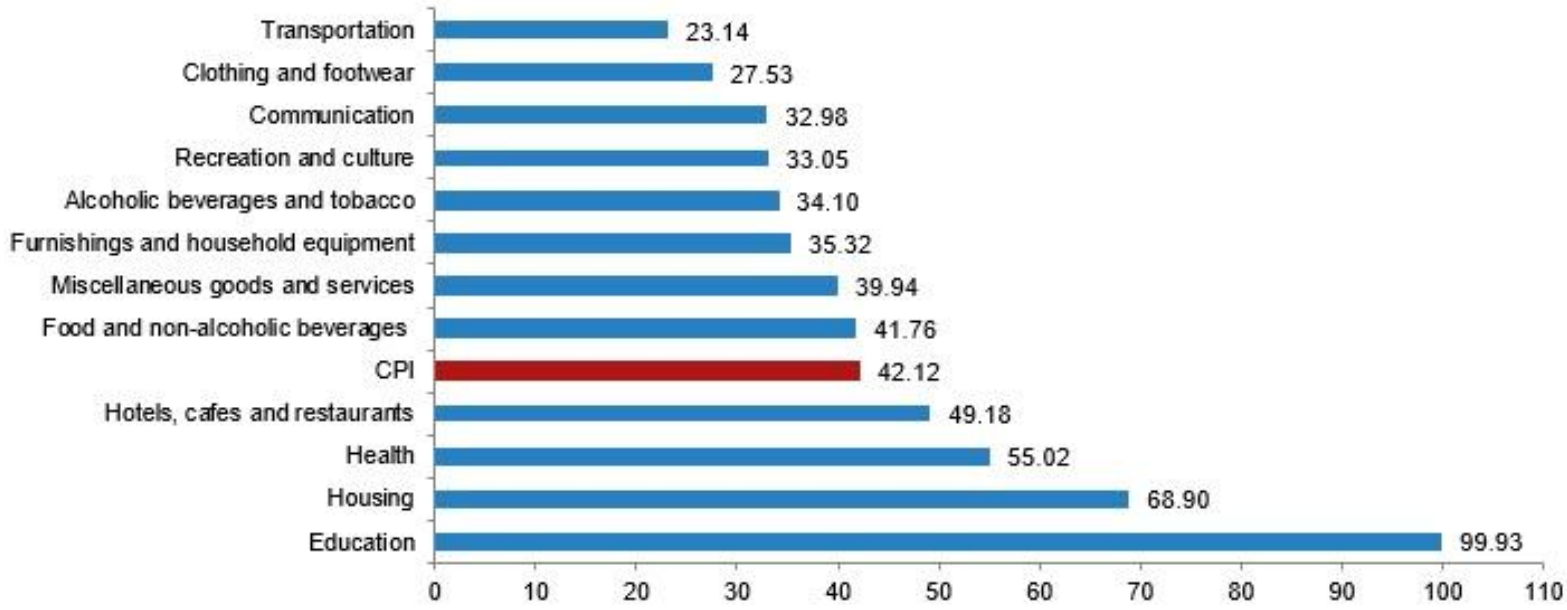
Whatever the reasons, policymakers have been willing to increase unemployment in an effort to reduce inflation—that is, to trade off some unemployment for less inflation.

A change in general index was realized in CPI (2003=100) on the previous month by 5.03%, on December of the previous year by 5.03%, on same month of the previous year by 42.12% and on the twelve months moving averages basis by 56.35% in January 2025.



(Source: Turkish Statistical Institute)

CPI annual rate of changes in main groups (%), January 2025



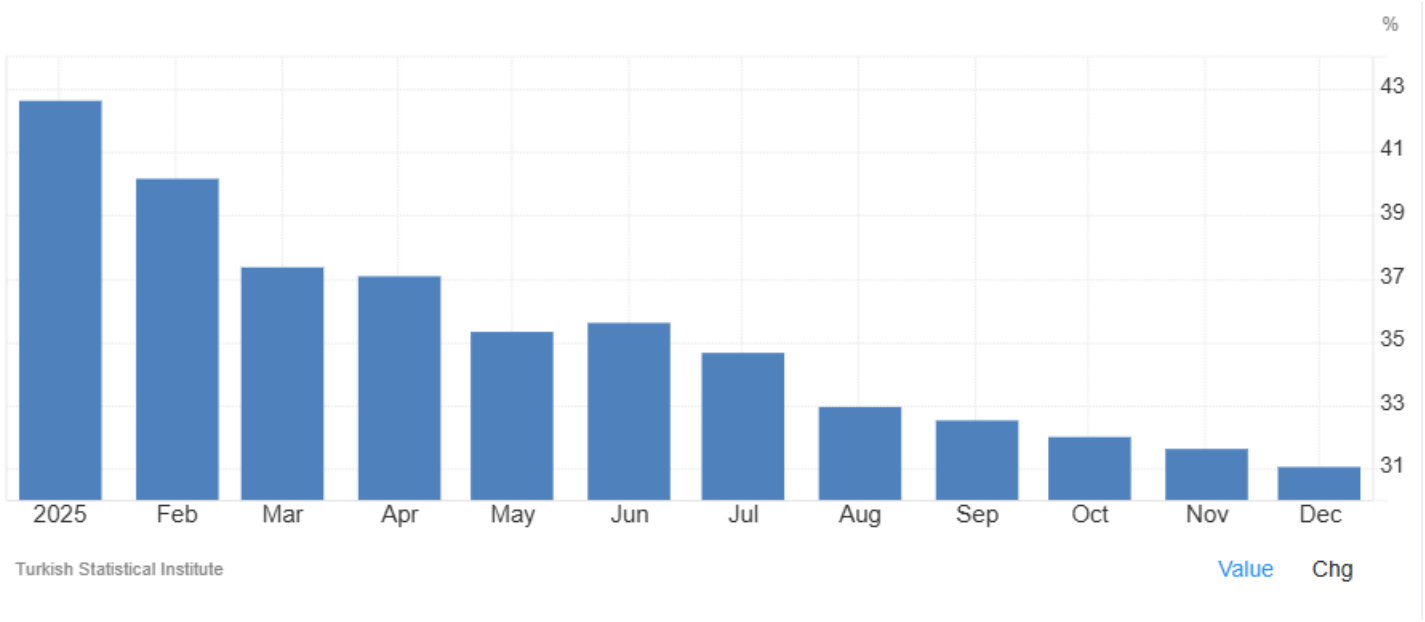
Transportation with 23.14% was the main group that indicated the lowest annual increase. On the other hand, education with 99.93% was the main group where the highest annual increase realized.

Core inflation is the change in the costs of goods and services but does not include those from the food and energy sectors. This measure of inflation excludes these items because their prices are much more volatile.

Core Inflation Rate is the inflation rate excluding effects of food and energy prices.
Question: Why take it out?
Answer: Is a better indicator of long-term inflation because it takes out products that frequently experience volatile price changes due to foreign government and business decisions as well as unexpected short-term crises (i.e., drought, hurricane).

In Türkiye, core consumer prices measure a broad rise or fall in prices that consumers pay for a standard basket of goods, excluding volatile items such as energy, food and non-alcoholic beverages, alcoholic beverages, tobacco and gold.

Core consumer prices in Turkey increased 31.08 percent in December of 2025 over the same month in the previous year. Core Inflation Rate in Turkey averaged 17.00 percent from 2004 until 2025, reaching an all time high of 75.81 percent in April of 2024 and a record low of 2.50 percent in October of 2010. source: Turkish Statistical Institute



The Roots of Macroeconomics

- In 1936, John Maynard Keynes published *The General Theory of Employment, Interest, and Money*.
- Keynes believed governments could intervene in the economy and affect the level of output and employment.
- During periods of low private demand, the government can stimulate aggregate demand to lift the economy out of recession.

Government in the Macroeconomy

- There are three kinds of policy that the government has used to influence the macroeconomy:
  1. Fiscal policy
  2. Monetary policy
  3. Growth or supply-side policies

Government in the Macroeconomy

- ***Fiscal policy*** refers to government policies concerning taxes and spending.
- ***Monetary policy*** consists of tools used by the Federal Reserve to control the quantity of money in the economy.
- ***Growth policies*** are government policies that focus on stimulating aggregate supply instead of aggregate demand.

Inflation and Deflation

- ***Inflation*** is an increase in the overall price level.
- ***Hyperinflation*** is a period of very rapid increases in the overall price level. Hyperinflations are rare, but have been used to study the costs and consequences of even moderate inflation.
- ***Deflation*** is a decrease in the overall price level. Prolonged periods of deflation can be just as damaging for the economy as sustained inflation.