

*The economy is made up of economic units, which are grouped into sectors.*

An **economic unit** can be a government, a business, a household, or any other entity that can make and receive money payments, own assets and owe debts. Note: In economics, we usually refer to "households" rather than people; a household consists of one or more individuals who pool their income and share ownership of assets, and make many of their purchases together. We do this because families normally function as a single economic unit: They make economic decisions together, and don't engage in market transactions with each other.

The main economic sectors are households, nonfinancial business, finance, and government. Nonprofit institutions are normally grouped with households. Nonfinancial businesses are further divided into corporate and noncorporate business. All units outside the national borders are usually treated as a single sector, referred to as the rest of the world.

*Macroeconomic thought can be divided between Classical theories, which focus on the allocation of real resources through markets, and Keynesian theories, which focus on the way production is shaped by money payments and incomes.*

Classical economists think that standard microeconomic reasoning also applies at the level of the economy as a whole. Microeconomics studies the way a fixed stock of resources is allocated between alternative uses by the price mechanism; the Classical view is that this is also the right way to think about problems involving the economy as a whole. Keynesian economics is an effort to create a different kind of economic reasoning specifically for the problems of an economy as a whole. Keynes described what he was doing as replacing an economic theory based on "real exchange" with a theory based on "monetary production." The goal of the Keynesian system is to understand how decisions to spend more or less spending money can affect the total amount of production and employment in the economy.

We often think of the difference between Keynesian and Classical economics in terms of policy preferences: Classical economists believe that government should not interfere in economic outcomes, while Keynesians believe that active government involvement is needed to keep the economy functioning acceptably.

This is generally the case, but there are exceptions. Monetarist economists, such as Milton Friedman, share most of the Keynesian

	<b>Classical</b>	<b>Keynesian</b>
What drives macroeconomic outcomes, money flows or real flows?	Real flows – money is just a kind of bookkeeping	Money flows – real decisions about production, employment, etc., depend on money payments
Does the level of output depend more on supply conditions, or on demand?	Supply – the willingness and ability of people to work, and the productivity of businesses	Demand – the willingness of people and businesses to buy things
Is the economy always (or at least normally) at full capacity?	Yes	No
How are imbalances in aggregate markets resolved?	Price adjustments	Quantity adjustments
What is the fundamental cause of unemployment?	Wages too high (due to government or unions)	Output too low (due to lack of demand)
Are booms and downturns exogenous or endogenous?	Exogenous – caused by “shocks” from outside the economic system	Endogenous – caused by forces within the economic system

analysis, but do not support active government intervention in the macroeconomy. Instead, they believe that if the government (in the form of the central bank) can ensure that the total volume of money payments in the economy rises at a steady pace, the rest of economic life can be let to the private decisions of businesses and households. Marxist economists believe that economic outcomes depend on “real” factors – the division of the product between workers and capitalists, the technology of production – rather than money payments. But Marxists also favor political action to transform the organization of economic life.

Very few economists think the Keynesian or Classical perspectives are 100% true. Some academic economists at places like the University of Chicago believe in “real business cycles” – the idea that even short-term changes in the level of economic activity are driven by changes in technology and people’s desire to work. But most academic economists, and all economists in business and government, accept the Keynesian perspective when it comes to explaining business cycles – changes in the level of economic activity over a few years. The national accounts kept by all modern countries are organized on the assumption that changes in GDP from month to month or year to year, depend entirely on changes in spending, not on changes in productive capacities. But most economists believe the Classical perspective is better suited to describe developments over long periods of time. In other words: If we want to understand why

the US economy was booming in 2007, and in recession in 2009, we should look at changes in people decisions to spend money. But if we want to understand why the US is much richer in 2009 than in 1900, we should focus on improvements in the productivity of American businesses.

*Outcomes or variables that policymakers seek to influence are called policy targets. There are seven important targets for macroeconomic policy.*

The most important *targets*, or outcomes, for macroeconomic policy, are:

*Output* - total goods and services produced in the economy.

All else equal, higher output is normally considered desirable – greater market production implies higher living standards and more resources available for public purposes. Keeping output near *potential* is a central goal for macroeconomic policy, both because it is important in itself and because the behavior of other targets is closely linked to the level of output. Output above potential may be considered “overheating” in the sense that it cannot be sustained for more than a few years, or because it is associated with rising inflation, and with changes in income distribution. In practice, economists and policymakers worry more about output falling below potential than about output rising above potential. Macroeconomic policy is primarily concerned with variations in output over a periods of a few years – recessions, booms, and business cycles.

Output is normally measured by GDP or some related variable, such as GNP. There is no direct way to measure potential output. Statistically, it is estimated based on the trend of output growth in the past. In policy debates, the judgement about whether current output is above or below potential is based on the behavior of unemployment and inflation.

The growth rate of output is often considered a separate target from the current level of output. The majority of macroeconomists believe that the current level of output demands on demand-side factors (how much people and businesses wish to spend) while the long-run growth of output depends mostly or entirely on supply-side factors (the productive capabilities of the country’s workers and businesses.) This implies that different kinds of policies may be needed to get output to potential in the short run, and to boost the long-run growth rate of output. For instance, a higher savings rate may reduce current demand for goods and services, but free

up resources for productive investment that will contribute to future growth.

Not all economists agree that there is a conflict between raising output in the short term and raising long term growth. Some Keynesians believe that higher demand contributes to long-term growth as well as the current level of output. Many other economists believe that macro policy instruments cannot reliably affect the long-run growth rate one way or the other (since it depends more on technological change) and that policy should therefore focus on stabilizing the economy in the short run.

*Unemployment* - the fraction of the laborforce unable to find work.

High unemployment is the problem that modern macroeconomics was developed to address, and the unemployment rate is probably the single economic variable that policymakers pay most attention to. Policy focuses on unemployment partly because it is important in itself – unemployment source of great personal hardship, and when unemployment rate is high it often leads to political instability. Unemployment is also a focus for policy because it is easy to measure the unemployment rate, while potential output cannot be measured directly.

Unemployment in the US is usually measured by U-3 – the fraction of the civilian, noninstitutionalized population 16 and older who have zero hours of paid employment and are actively looking for work. But broader measures exist, such as U-6, which includes people who have given up looking for work and part-time workers who would prefer to work full-time. Employment can also be measured as the fraction of the population over 16 with jobs; this is the *employment-population ratio*.

In general, lower unemployment is better than high unemployment, but no government today seeks to reduce the unemployment rate to zero. What unemployment rate should be considered *full employment* in practice is debated; in the US, most economists today use a number between 4 and 5 percent. Rising inflation is often taken as a sign that unemployment is too low.

*Inflation* - the average increase in the prices of goods and services.

Most modern central banks are directed by law to focus on maintaining stable prices as their sole or primary task. (The US is an exception – our central bank, the Federal Reserve, is supposed to give equal priority to price stability and to full employment.) It is not always clear why inflation should be the main concern for policymakers, but it has been for at least the past 25 years. Rising

inflation is generally taken as a sign that the economy is “overheating” – that output is too high.

Inflation is usually measured by the Consumer Price Index – the average price of goods consumed by a representative household.

*Income distribution* – the share of total income received by richer and poorer households.

Until relatively recently, income distribution was not considered a target for macroeconomic policy, in part because it was believed to be quite stable in advanced countries, and in part because it was assumed to depend mostly on microeconomic factors. In recent years, it has become clear that income distribution is not stable – in almost all the advanced countries, there has been a large increase in the share of income received by the rich, and an increase in the share received from property income and decrease in the share from wages. While many economists continue to believe that this shift is mainly due to changes in technology and the supply and demand of various skills, an increasing number of economists believe that macroeconomic variables like interest rates, government budgets, output growth, inflation and unemployment have played an important role in the redistribution of income upward.

In public discussions of income distribution, it is most often assumed that a more equal distribution is preferable to a less equal one, all else equal. Sometimes, it is suggested that policy should simply preserve the existing distribution of income, whatever it is. Either way, the recent rise in the share of property-owners and of the rich is seen as a problem. But in practice, economic policy sometimes seems to favor a redistribution of income upward and from labor to capital, even if few elected officials would state this as a goal.

Income distribution is measured in various ways. The *personal distribution* of income is most often measured by the *Gini index*, which ranges from zero in a situation of perfect equality (equal income for all) to 1 in a situation of perfect inequality (one individual has all the income). It also may be measured by the ratio of two percentiles, such as the ratio of the median individual to the income of an individual in the poorest ten percent. The *functional distribution* of income is normally measured by the share of labor income — wages and salaries – in total income.

*Government debt ratio* – total government debt relative to the size of the economy.

There is no agreement among economists about why, what level, or even whether government debt is economically costly. But most

policy discussions take it for granted that it is necessary or desirable to keep government debt from rising too high. Government debt is usually measured as a fraction of the economy. For example, countries in the European Union seek to keep their government debt below 60 percent of GDP.

*Balance of Payments* – the total flow of money into the country from the rest of the world, compared with the total flow outward.

The *balance of payments* refers to the all the money payments between a given country and the rest of the world. In other words, it is the net flow of *foreign exchange* into or out of the country.

We sometimes say that a country is running into *balance of payments problems* or facing a *balance of payments constraint*. This means that it is in a situation where the total flows of foreign exchange into the country are not enough to maintain the total flows out of the country. That is, the country as a whole needs to pay more money to the rest of the world, than it is receiving from the rest of the world. This is never a problem for the United States, since US dollars are accepted as payment by the rest of the world. But for many other countries, avoiding large balance of payments deficits is a very important goal of macroeconomic policy.

The main positive contributions to a country's balance of payments are its exports to the rest of the world, foreign investment from the rest of the world, the income it receives from its own foreign investments, and transfers from foreign governments or from its own citizens working abroad. The main negative contributions are imports from the rest of the world, outward foreign investment (including *capital flight*), and payments on foreign debt.

*Financial stability* – sustainable growth in asset prices and debt levels.

Unlike other macroeconomic targets, there is no single aggregate variable associated with this target. But an increasing number of policymakers and economists believe that macroeconomic policy must be concerned with excessive swings in assets prices (especially *asset bubbles*) and excessive growth of private debt. These concerns are usually presented as reasons for more *contractionary* policy than might otherwise be called for. Low interest rates, it is argued, may encourage too much borrowing by households and businesses, and may inflate the value of stocks, real estate and other assets. So far, however, there is no consensus on how to decide if asset prices or debt are growing too quickly.