

# 1 Economics

## 1.1 What is economics?

Before we dive into macroeconomics, you might ask: What is economics?

Economics is the study of human behaviour and decision-making, considering you have scarce resources available. Whenever you want to buy something, you implicitly think about your economic limitations or the scarce economic resources that you have before you decide whether to buy or not buy and the quantity to buy.

The scarce resource term is used extensively in economics to make assumptions about individuals and society.

Formally, economics is traditionally divided into two sciences: Microeconomics and Macroeconomics.

## 1.2 Microeconomics

It's about studying how firms buy and sell goods and how households (including individuals) buy goods and services, i.e., how firms and households make economic decisions and how these decisions interact with their corresponding markets.

A microeconomist might study the relationship between the sale of luxury cars and the family income of households in London between 2010 and 2020. Another microeconomic study could be the relationship between annual trading income and the number of years of formal education that the trader had in a country.

## 1.3 Macroeconomics

This subfield can be understood as a science that analyses the economic-decision making process of a population at an aggregate level. This means we might analyse the economy-wide variables that describe the country or the relationship between countries as a whole.

Some economy-wide variables include inflation rate, gross domestic product (GDP), exchange rates, unemployment rate, etc. Macroeconomics study the relationship between these variables with the help of various economic models. Many theories in macroeconomics help explain the causes and effects of the economic variables and each may produce different results in their interpretation depending on the time frame they consider, assumptions, etc.

A macroeconomist may study the relationship between, for example, the unemployment in France and the price of crude oil since 2008. Another macroeconomic study could be the important macroeconomic determinant of the high inflation rates in 2022, like the quantitative easing applied by the Fed since 2008, etc.

## 1.4 Have you decided to trade? The opportunity cost

We talked about scarce resources. Even time is a scarce resource. The opportunity cost is an important concept in economics. For example, let's say you like to go, in decreasing order of preference, to the ball game, to the movies, or for dinner at a certain restaurant. You can probably do only one of the above activities on a busy Friday evening. If you choose to go to the ball game, the opportunity cost that you paid is of not going to the movies. That is, the next best opportunity that you gave up.

Let's see another example and ask a question. Imagine that the minimum wage per year in a country is \$12,000 and you are currently working as a data analyst earning \$20,000. If you search for a job and find one that offers you \$30,000. If you accept the \$30,000 job, what would your opportunity cost be? Would it be \$12,000 (the minimum wage) or \$20,000 (your earlier salary)? Remember that the opportunity cost is your "second-best" option. Consequently, your opportunity cost would be \$20,000 from your previous job.

In case you decide to trade in the financial markets, you would need to allocate money from your savings to trade. The question you should ask yourself is: What's my opportunity cost? You would need to compare the returns from your opportunity costs and from your trading returns, to see if you should pursue the idea of trading. Always keep your opportunity cost in mind for every economic decision you make.