Microeconomics

Microeconomics (from Greek prefix micro-meaning "small" + "economics") is a branch of economics that studies how the individual parts of the economy, the household and the firms, make decisions to allocate limited resources,[1] typically in markets where goods or services are being bought and sold. Microeconomics examines how these decisions and behaviours affect the supply and demand for goods and services, which determines prices, and how prices, in turn, determine the supply and demand of goods and services.[2][3]

This is a contrast to macroeconomics, which involves the "sum total of economic activity, dealing with the issues of growth, inflation, and unemployment."[2] Microeconomics also deals with the effects of national economic policies (such as changing taxation levels) on the before mentioned aspects of the economy.[4] Particularly in the wake of the Lucas critique, much of modern macroeconomic theory has been built upon 'microfoundations' — i.e. based upon basic assumptions about micro-level behaviour.

One of the goals of microeconomics is to analyze market mechanisms that establish relative prices amongst goods and services and allocation of limited resources amongst many alternative uses. Microeconomics analyzes market failure, where markets fail to produce efficient results, and describes the theoretical conditions needed for perfect competition. Significant fields of study in microeconomics include general equilibrium, markets under asymmetric information, choice under uncertainty and economic applications of game theory. Also considered is the elasticity of products within the market system.

Assumptions and definitions

The theory of supply and demand usually assumes that markets are perfectly competitive. This implies that there are many buyers and sellers in the market and none of them has the capacity to significantly influence prices of goods and services. In many real-life transactions, the assumption fails because some individual buyers or sellers have the ability to influence prices. Quite often a sophisticated analysis is required to understand the demand-supply equation of a good model. However, the theory works well in situations reflecting these assumptions.

Mainstream economics does not assume a priori that markets are preferable to other forms of social organization. In fact, much analysis is devoted to cases where so-called market failures lead to resource allocation that is suboptimal by some standard (highways are the classic example, profitable to all for use but not directly profitable for anyone to finance). In such cases, economists may attempt to find policies that will avoid waste directly by government control, indirectly by regulation that induces market participants to act in a manner consistent with optimal welfare, or by creating "missing markets" to enable efficient trading where none had previously existed.
This is studied in the field of collective action. It also must be noted that "optimal welfare" usually takes on a Paretoian norm, which in its mathematical application of Kaldor–Hicks method, does not stay consistent with the Utilitarian norm within the normative side of economics which studies collective action, namely public choice. Market failure in positive economics (microeconomics) is limited in implications without mixing the belief of the economist and his or her theory.

The demand for various commodities by individuals is generally thought of as the outcome of a utility-maximizing process. The interpretation of this relationship between price and quantity demanded of a given good is that, given all the other goods and constraints, this set of choices is that one which makes the consumer happiest.

Modes of operation

It is assumed that all firms are following rational decision-making, and will produce at the profit-maximizing output. Given this assumption, there are four categories in which a firm's profit may be considered.

- A firm is said to be making an economic profit when its average total cost is less than the price of each additional product at the profit-maximizing output. The economic profit is equal to the quantity output multiplied by the difference between the average total cost and the price.
- A firm is said to be making a normal profit when its economic profit equals zero. This occurs where average total cost equals price at the profit-maximizing output.
- If the price is between average total cost and average variable cost at the profit-maximizing output, then the firm is said to be in a loss-minimizing condition. The firm should still continue to produce, however, since its loss would be larger if it were to stop producing. By continuing production, the firm can offset its variable cost and at least part of its fixed cost, but by stopping completely it would lose the entirety of its fixed cost.
- If the price is below average variable cost at the profit-maximizing output, the firm should go into shutdown. Losses are minimized by not producing at all, since any production would not generate returns significant enough to offset any fixed cost and part of the variable cost. By not producing, the firm loses only its fixed cost. By losing this fixed cost the company faces a challenge. It must either exit the market or remain in the market and risk a complete loss.

Opportunity cost

Opportunity cost of an activity (or goods) is equal to the best next alternative foregone. Although opportunity cost can be hard to quantify, the effect of opportunity cost is universal and very real on the individual level. In fact, this principle applies to all decisions, not just economic ones. Since the work of the Austrian economist Friedrich von Wieser, opportunity cost has been seen as the foundation of the marginal theory of value.

Opportunity cost is one way to measure the cost of something. Rather than merely identifying and adding the costs of a project, one may also identify the next best alternative way to spend the same amount of money. The forgone profit of this next best alternative is the opportunity cost of the original choice. A common example is a farmer that chooses to farm her or his land rather than rent it to neighbors, wherein the opportunity cost is the forgone profit from renting. In this case, the farmer may expect to generate more profit alone. Similarly, the opportunity cost of attending university is the lost wages a student could have earned in the workforce, rather than the cost of tuition, books, and other requisite items (whose sum makes up the total cost of attendance). The opportunity cost of a vacation in the Bahamas might be the down payment for a house.

Note that opportunity cost is not the sum of the available alternatives, but rather the benefit of the single, best alternative. Possible opportunity costs of a city’s decision to build a hospital on its vacant land are the loss of the land for a sporting center, or the inability to use the land for a parking lot, or the money that could have been made from selling the land, or the loss of any of the various other possible uses — but not all of these in aggregate. The true opportunity cost would be the forgone profit of the most lucrative of those listed.
One question that arises here is how to determine a money value for each alternative to facilitate comparison and assess opportunity cost, which may be more or less difficult depending on the things we are trying to compare. For example, many decisions involve environmental impacts whose monetary value is difficult to assess because of scientific uncertainty. Valuing a human life or the economic impact of an Arctic oil spill involves making subjective choices with ethical implications.

It is imperative to understand that nothing is free. No matter what one chooses to do, he or she is always giving something up in return. An example of opportunity cost is deciding between going to a concert and doing homework. If one decides to go the concert, then he or she is giving up valuable time to study, but if he or she chooses to do homework then the cost is giving up the concert. Opportunity cost is vital in understanding microeconomics and decisions that are made.

**Applied microeconomics**

Applied microeconomics includes a range of specialized areas of study, many of which draw on methods from other fields. Applied work often uses little more than the basics of price theory, supply and demand. Industrial organization and regulation examines topics such as the entry and exit of firms, innovation, role of trademarks. Law and economics applies microeconomic principles to the selection and enforcement of competing legal regimes and their relative efficiencies. Labor economics examines wages, employment, and labor market dynamics. Public finance (also called public economics) examines the design of government tax and expenditure policies and economic effects of these policies (e.g., social insurance programs).

Political economy examines the role of political institutions in determining policy outcomes. Health economics examines the organization of health care systems, including the role of the health care workforce and health insurance programs. Urban economics, which examines the challenges faced by cities, such as sprawl, air and water pollution, traffic congestion, and poverty, draws on the fields of urban geography and sociology.

The field of financial economics examines topics such as the structure of optimal portfolios, the rate of return to capital, econometric analysis of security returns, and corporate financial behavior. The field of economic history examines the evolution of the economy and economic institutions, using methods and techniques from the fields of economics, history, geography, sociology, psychology, and political science.

**Further reading**


**External links**

• [Open Source Introduction to Microeconomics](http://www.introecon.com) (see wiki article) by R. Preston McAfee - California Institute of Technology
• [Amosweb.com homepage](http://www.amosweb.com/cgi-bin/awb_nav.pl?s=gls) - online economics dictionary
• [X-Lab: A Collaborative Micro-Economics and Social Sciences Research Laboratory](http://xlab.berkeley.edu)
• [Micro Economics](http://www.standardsoflife.com/Micro+Economics) - the role of micro economics in supporting the social fabric of macro economies
• [Simulations in Microeconomics](http://www.economicsnetwork.ac.uk/teaching/simulations/principlesofmicroeconomics.htm)

**References**

[8] [http://www.amosweb.com/cgi-bin/awb_nav.pl?s=gls](http://www.amosweb.com/cgi-bin/awb_nav.pl?s=gls)
[9] [http://xlab.berkeley.edu](http://xlab.berkeley.edu)
[11] [http://www.economicsnetwork.ac.uk/teaching/simulations/principlesofmicroeconomics.htm](http://www.economicsnetwork.ac.uk/teaching/simulations/principlesofmicroeconomics.htm)
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