

Principles of Microeconomics

Thinking like an economist:

The economist as a scientist:

- Economists try to tackle their subject with a scientist's objectivity.
- They devise theories, collect data and then analyse these data in an attempt to verify or refute their theories.
- Essence of science is the scientific method – the dispassionate development and testing of theories about how the world works.
- Albert Einstein: 'The whole of science is nothing more than the refinement of everyday thinking.'

The scientific method: Observation, theory and more observation:

- Interplay between theory and observation occurs in the field of economics.
- Although economists use theory and observation like other scientists, they do face an obstacle that makes their task especially challenging – experiments are often difficult in economics.
- Economists, like astronomers and evolutionary biologists, usually have to make do with whatever data the world happens to give them.
- To find a substitute for laboratory experiments, economists pay close attention to the natural experiments offered by history.
- Historical episodes are valuable because they give us insight into the economy of the past and, more importantly, because they allow us to illustrate and evaluate economic theories of the present.

The role of assumptions:

- Assumptions can make the world easier to understand. – For example, to study the effects of international trade, we may assume that the world consists of only two countries and that each country produces only two goods. (Allows us to focus our thinking)
- The art of scientific thinking is deciding which assumptions to make.
- Economists use different assumptions to answer different questions.
- Economists used different assumptions when studying the short-term and long-term effects of a change in the quantity of money.

Economic models:

- Economists use models to learn about the world.
- These models are composed of diagrams and equations.
- Economic models omit many details to allow us to see what is truly important.
- An economist's model does not include every feature of the economy.
- Economic models are built on assumptions.
- All models simplify reality in order to improve our understanding of it.

Our first model: The circular-flow diagram:

- The circular-flow diagram is a visual model, which demonstrates how the economy is organized and how participants in the economy interact with one another.
- The circular-flow diagram is a very simple model of the economy.
- In this model, the economy has two types of decision makers – households and firms.

Our second model: The production possibilities frontier:

- Most economic models, unlike the circular-flow diagram, are built using the tools of mathematics.
- The production possibilities frontier is a graph that shows the various combinations of output that the economy can possibly produce given the available factors of production and the available production technology that firms can use to turn these factors into input.
- The two endpoints of the production possibilities frontier represent two extreme possibilities.
- Because resources are scarce, not every conceivable outcome is feasible.
- With the resources it has, the economy can produce at any point on or inside the production possibilities frontier, but it cannot produce at points outside the frontier.
- An outcome is said to be efficient if the economy is getting all it can from the scarce resources it has available.
- Points on (rather than inside) the production possibilities frontier represent efficient levels of production. – There is no way of producing more of one good without producing less of the other.
- Points inside the production possibilities frontier represent inefficient levels of production. – For some reason, perhaps widespread unemployment, the economy is producing less than it could from the resources it has available.
- The production possibilities frontier shows one trade-off that society faces. Once we have reached the efficient points on the frontier, the only way of producing more of one good is to produce less of the other.
- This trade-off helps us to understand the cost of something is what you give up to get it. This is called the opportunity cost. The production possibilities frontier shows the opportunity cost of one good as measured in terms of the other good.
- The production possibilities frontier shows the trade-off between the production of different goods at a given time, but the trade-off can change over time.
- It illustrates economic growth. – Society can move production from a point on the old frontier to a point on the new frontier. (Which point it chooses depends on its preferences for the two goods)
- The production possibilities frontier simplifies a complex economy to highlight some basic but powerful ideas: scarcity, efficiency, trade-offs, opportunity cost and economic growth.

Microeconomics and Macroeconomics:

- Economics is studied on various levels.
- The field of economics is traditionally divided into two broad subfields.
- Microeconomics is the study of how households and firms make decisions and how they interact in specific markets.
- A microeconomist might study the effects of the discovery of a new gas reserve in Queensland on energy productions.
- Macroeconomics is the study of economy-wide phenomena.
- A macroeconomist might study the effects of borrowing by the federal government, the changes over time in the economy's rate of unemployment or alternative policies to raise growth in national living standards.
- Microeconomics and macroeconomics are closely intertwined. Because changes in the overall economy arise from the decisions of millions of

individuals, it is impossible to understand macroeconomic developments without considering the associated microeconomic decisions.

The economist as policy adviser:

- When economists are trying to explain the world, they are scientists. When they are trying to improve it, they are policy advisers.

Positive versus normative analysis:

- In general, statements about the world are of two types.
- Positive statements are descriptive. They make a claim about how the world is. They are value free and can be tested.
- Normative statements are prescriptive. They make a claim about how the world ought to be. They are value judgments.
- Scientists make positive statements. Policy makers make normative statements.
- A key difference between positive and normative statements is how we judge their validity. We can, in principle, confirm or refute positive statements by examining evidence.
- In contrast, evaluating normative statements involves values as well as facts.
- When you hear economists making normative statements, you know they have crossed the line from scientist to policy adviser.

Economists in government:

- Economists' advice is not always straightforward.
- Economists are aware that trade-offs are involved in most policy decisions. - A policy might increase efficiency at the cost of equity. It might help future generations, but hurt current generations.
- An economist who says that all policy decisions are easy is an economist not to be trusted.
- Nonetheless, economists play an important role in many areas of government decision-making.
- They give the government advice on microeconomic reform through research conducted at the Productivity Commission.
- The influence of economists on policy goes beyond their role as advisers and policymakers; their research and writings often affect policy indirectly.

Why economists disagree:

- Economists as a group are often criticized for giving conflicting advice to policymakers.
- There are two basic reasons why economists often appear to give conflicting advice to policymakers:
 - Economists may disagree about the validity of alternative positive theories about how the world works
 - Economists may have different values and, therefore, different normative views about what policies should try to accomplish.

Differences in scientific judgments:

- Science is a search for understanding about the world around us.
- Economics is a young science and there is still much to be learned.

- Economists sometimes disagree because they have different hunches about the validity of alternative theories or about the size of important parameters.

Differences in values:

- Economists give conflicting advice sometimes because they have different values.

Perception versus reality:

- Because differences in scientific judgments and differences in values, some disagreement among economists is inevitable.
- Economists agree with one another far more than is sometimes understood.

Interdependence and the gains from trade:

- People provide you and other consumers with the goods and services they produce because they get something in return.
- Trade can make everyone better off

A parable for the modern economy:

Production possibilities:

- A production possibilities frontier shows the various mixes of output that an economy can produce.
- It illustrates that people face trade-offs
- The production possibilities frontier shows all the outcomes.

Specialisation and trade:

- Trade allows us to specialise in doing what we do best.

The principle of comparative advantage:

Absolute advantage:

- Economists use the term absolute advantage when comparing the productivity of one person, firm or nation with that of another.
- The producer that requires a smaller quantity of inputs to produce a good is said to have an absolute advantage in producing that good.

Opportunity cost and comparative advantage:

- Rather than comparing inputs required, we can compare the opportunity costs.
- The opportunity cost of some item is what we give up to get that item.
- The opportunity cost measures the trade-off between the two goods that each faces.
- Economists use the term comparative advantage when describing the opportunity cost of two producers. The producer who has the smaller opportunity cost of producing a good is said to have a comparative advantage in producing that good.
- Although it is possible for one person to have an absolute advantage in both goods, it is impossible for the same person to have a comparative advantage in both goods.

- Because the opportunity cost of one good is the inverse of the opportunity cost of the other, if a person's opportunity cost of one good is relatively high, his opportunity cost of the other must be relatively low.
- Unless two people have exactly the same opportunity cost, one person will have a comparative advantage in one good and the other person will have a comparative advantage in the other good.

Comparative advantage and trade:

- Differences in opportunity cost and comparative advantage create the gains from trade.
- When each person specialises in producing the good for which he or she has a comparative advantage, total production in the economy rises.
- Trade can benefit everyone in society because it allows people to specialise in activities, which they have, a comparative advantage.

Applications of comparative advantage:

Should a country trade with other countries?

- Just as individuals can benefit from specialisation and trade with one another, so can populations of people in different countries.
- Many of the goods that Australians enjoy are produced abroad and many of the goods produced in Australia are sold abroad.
- Goods produced abroad and sold domestically are called imports.
- Goods produced domestically and sold abroad are called exports.
- The principle of comparative advantage states that each good, should be produced by the country that has the smaller opportunity cost of producing that good
- Each country has many citizens with different interests.
- International trade can make some individuals worse off, even as it makes the country as a whole better off.
- Trade allows countries to achieve greater prosperity.

The market forces of supply and demand:

- Supply and demand are the two words that economists use most often
- Supply and demand are the forces that make market economies work.

Markets and competition:

- The terms supply and demand refer to the behaviour of people as they interact with one another in competitive markets.

What is a market?

- A market is a group of buyers and sellers of a particular good or service.
- The buyers as a group determine the demand for the product and the sellers as a group determine the supply of the product.
- Markets take many forms. Sometimes markets are highly organized, such as the share market of the market for some agricultural commodities. In these markets, buyers and sellers meet at a specific time and place.
- More often, markets are less organized and are unlike this.

What is competition?

- Most markets in the economy are highly competitive