This learning module includes videos with narration that are essential content.

Economics: Foundations and Models

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Economics: Foundations and Models: Start – Note that this learning module includes videos with narration that are essential content

Learning Objectives

- Explain these three key economic ideas: people are rational, people respond to incentives, and optimal decisions are made at the margin.
- Understand the issues of scarcity and trade-offs, and how the market makes decisions on these issues.
- Understand the role of models in economic analysis.
- Distinguish between microeconomics and macroeconomics.

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- Distinguish between microeconomics and macroeconomics.

Video: Why Study Economics?

The YouTube link to this video from the RBA is provided in the notes below.

The YouTube link to this video from the RBA is:
https://www.youtube.com/watch?v=KwQbnNzxUHo

Economics: Definitions and Terms

Markets

Economics

Study of choices people and societies make to attain their unlimited wants, given their scarce resources.

Economics covers a wide range of real-world issues and interacts with many other disciplines. In economics we study how people make choices and interact in markets.

A Market is a group of buyers and sellers of a good or service and the institution or arrangement by which they come together to trade.

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Economics is the social science that studies the choices that individuals, businesses, governments and entire societies make as they cope with **scarcity**, the incentives that influence those choices and the arrangements that coordinate them.

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Economics Answers Important Questions

- How are the prices of goods and services determined?
- How does pollution affect the economy, and how should government policy deal with these effects?
- Why do firms engage in international trade, and how do government policies affect international trade?
- Why does government control the prices of some goods and services, and what are the effects of those controls?

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Economics is used to answer questions such as the following:

- How are the prices of goods and services determined?
- How does pollution affect the economy, and how should government policy deal with these effects?
- Why do firms engage in international trade, and how do government policies affect international trade?
- Why does government control the prices of some goods and services, and what are the effects of those controls?

Three key economic ideas

1. People are rational.
2. People respond to economic incentives.
3. Optimal decisions are made at the margin.
   - **Marginal analysis:** Analysis that involves comparing marginal benefits and marginal costs.

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What is Scarcity?

Scarcity is the condition that arises because wants exceeds the ability of resources to satisfy them. Remember how necessities like toilet paper, soap and pasta were suddenly scarce during the pandemic?

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Scarcity and Trade-offs

Resources: Inputs used to produce goods and services, including natural resources such as land, water and minerals, labour, capital, and entrepreneurial ability.

Trade-off: The idea that, because of scarcity, producing more of one good or service means producing less of another good or service.

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Trade-offs and choices

What goods and services will be produced?
How will the goods be produced and/or the services be delivered?
Who will receive the goods and services?

Trade-offs and Choices

When choosing between alternative options, economists use the concept of opportunity cost.

Opportunity Cost

The opportunity cost of any activity is the highest-valued alternative that must be given up to engage in that activity.

What?

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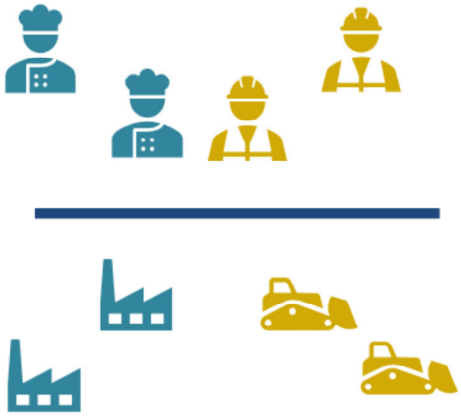
Trade-offs and Choices



How?

In many cases, firms face a trade-off between using more workers and using more machines.

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Trade-offs and Choices: How? In many cases, firms face a trade-off between using more workers and using more machines.

Trade-offs and Choices

Who will receive the goods and services produced? This largely depends on how income is distributed. The market for Lamborghini sports cars is quite different to the market for childcare services.

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Centrally Planned vs Market Economies

Centrally Planned	Market Economy
Government decides allocation of economic resources	Decisions of people and organisations interacting in markets determines allocation of economic resources

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- **Centrally planned economy**: An economy in which the government decides how economic resources will be allocated.

- **Market economy**: An economy in which the decisions of households and firms interacting in markets allocate economic resources.

Market Economies

A central feature of market economies is *consumer sovereignty*.

The concept that in a market economy it is ultimately consumers who decide what goods and services will be produced. This occurs because firms must produce goods and services that meet the wants of consumers, or the firms will go out of business.

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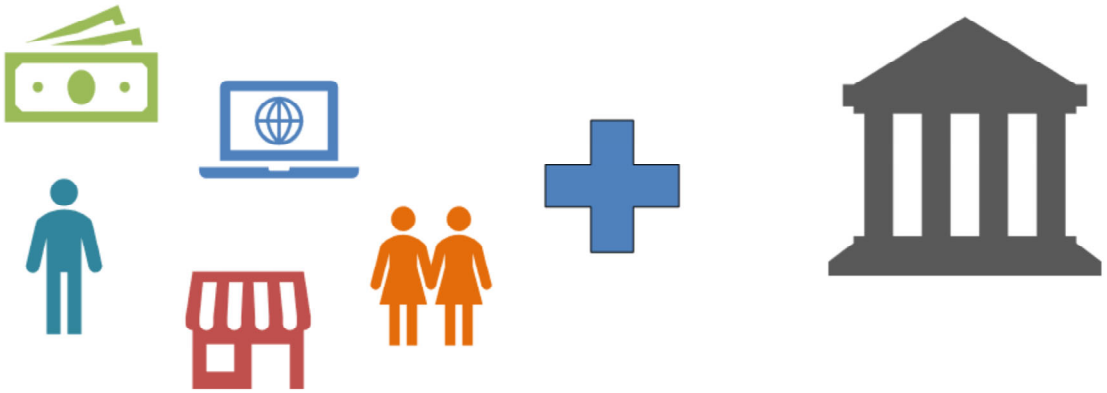
Mixed Economy

An economy in which most economic decisions result from the interaction of buyers and sellers in markets, but in which the government plays a significant role in the allocation of resources.



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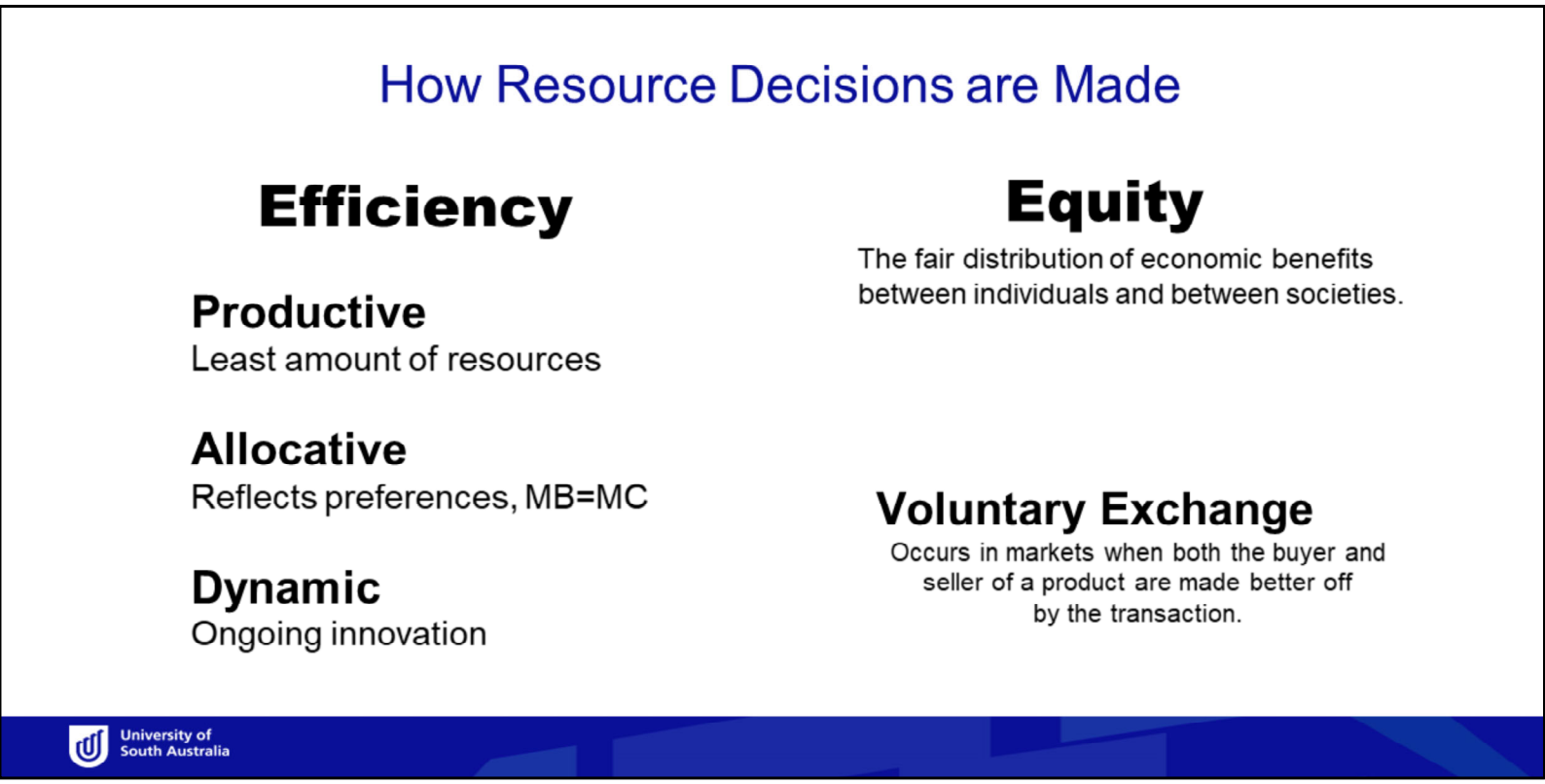

Types of Efficiency:

Productive
Least amount of resources

Allocative
Reflects preferences, MB=MC

Dynamic
Ongoing innovation

Equity - The fair distribution of economic benefits between individuals and between societies.

Voluntary Exchange
Occurs in markets when both the buyer and seller of a product are made better off by the transaction.

How Resource Decisions are Made

Efficiency **Equity**

An efficient outcome may or may not be considered by society to be equitable. One example is the increase in concern over the impacts of pollution and depletion of natural resources on the wellbeing of the planet.

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Photo by Saph Photography from Pexels

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Economic Models

- **Simplified versions of reality** used for analysis
- Make **behavioural assumptions about motives** of firms, people
- Employ **economic variables**

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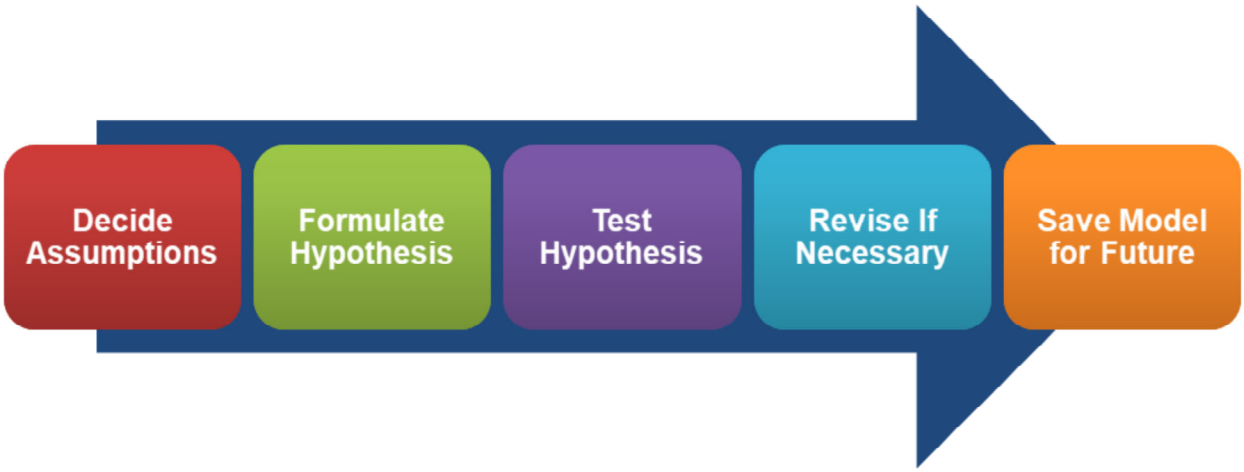
Economic variables are measurable phenomena that are used to analyse economic performance and decisions and/or can impact economic performance. Examples range from small scale considerations such as the cost of resources to produce a product or service to bigger picture considerations such as the cost of borrowing money or the rate of inflation.

Developing Economic Models



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To develop a model economists generally follow these steps:

1. Decide on the assumptions to be used in developing the model.
2. Formulate a testable hypothesis.
3. Use economic data to test the hypothesis.
4. Revise the model if it fails to explain the economic data.
5. Retain the revised model to help answer similar economic questions in the future.

Developing Economic Models: Hypotheses

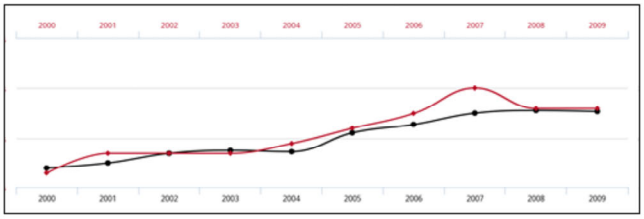
A hypothesis in an economic model is a statement that may be either correct or incorrect about an economic variable. In testing hypotheses, economists distinguish between correlation and causality.

Causation

Direct, measurable impact

Correlation

Appearance of relationship



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Car and yachts image licenced from Shutterstock, Chart CC (b) Tyler Vigen

Forming and testing hypotheses in economic models

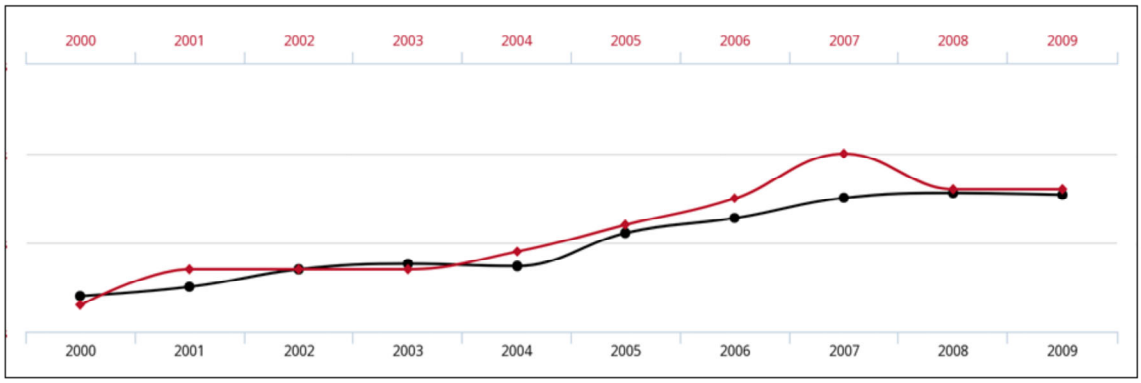
A hypothesis in an economic model is a statement that may be either correct or incorrect about an economic variable.

In testing hypotheses, economists distinguish between correlation and causality.

Causation is the direct impact of an event on something else. Also called an effect. If you buy a luxury car or yacht, you spend money. The act of buying causes you to spend money.

A correlation is the appearance that two or more things are related. The chart here shows two phenomena over time that seem to be running in parallel.

The Trap of Correlation



Correlation can be a mind-trap. For instance, look at the graph above, comparing two phenomena over time. They'd seem to be running in parallel, wouldn't they?

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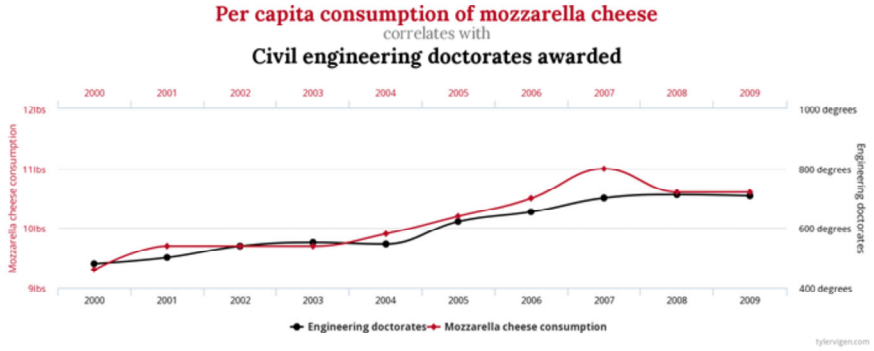

However, here is what is being compared. We can most likely assume that even though they seem to be behaving similarly over time – there is NO real correlation between the consumption of mozzarella cheese and success in achieving a Civil Engineering Doctorate.

The very funny spurious correlations website illustrates that patterns can be misleading in a series of graphs comparing unrelated phenomena with very similar patterns. https://www.tylervigen.com/spurious-correlations

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Economic Models: Analysis Techniques

Positive Analysis

- Based on data, facts
- Cause and effect
- Objective
- Asks What IS
- Statements can be tested or proven
- Descriptive
- Provides information upon which to base opinions

Normative Analysis

- Based on values, opinion
- Value conclusions
- Subjective
- Asks What SHOULD be
- Statements cannot be tested or proven
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- Provides opinions upon which to base decisions

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Economic Models: Analysis Techniques

Normative analysis might sound outside the realm of economics – which many people consider to focus strictly on commerce.

But remember, that as a study of the motivations of people and societies – economics is a SOCIAL science – similar to sociology and political science. As such – we consider human behaviour AND the impact of economic trends and decisions on human beings.

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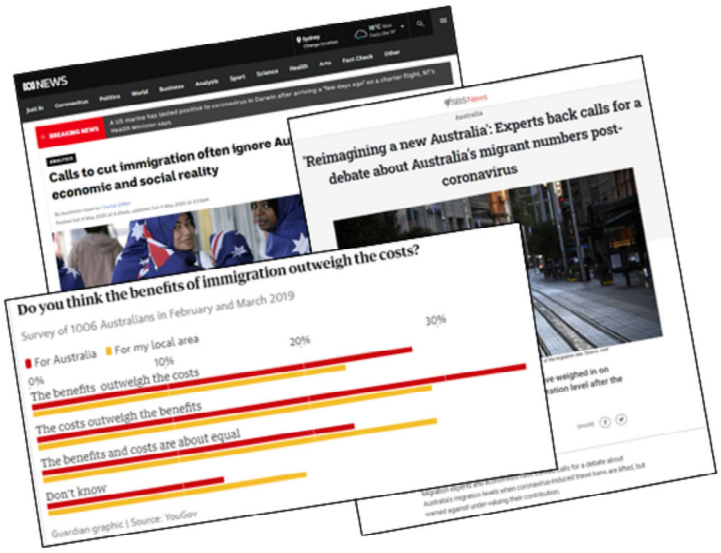
Economics vs Politics



Like many other policy debates, the debate over immigration has both positive and normative elements.

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Most economists agree that immigration contributes to economic growth.

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Microeconomics

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Macroeconomics

The study of the economy as a whole, including topics such as inflation, unemployment, and economic growth.

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Considering Impacts: The Cost of Efficiency

What jobs will survive robotics, automation, AI and offshoring?

Economics explores questions such as these.

Some argue that the automating of routine tasks and the offshoring of services will lead to higher wages and increased prosperity for Australia, just as moving manufacturing production overseas did in earlier years.

Others are concerned that we will lose much-needed jobs.

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Watch the RBA video “The Future of Work”
https://www.youtube.com/watch?v=ljiQ2rAoKxE

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Economics: Foundations and Models - End