

PEARSON ECONOMICS 11

THE MARKET ECONOMY

2023



Tim Dixon • John O'Mahony

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ECONOMY**

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Pearson Australia

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Elsevier: Journal of Government and Economics: 'The Proper Role of Government in the Market Economy: The Case of the Post-COVID Recovery' by Professor Joseph E. Stiglitz, May 14, 2021), p. 211.

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Welcome

The Market Economy

You are standing on the starting block of your study of economics, about to dive into a world that uses special language, concepts and theories to build a complex understanding of how the economy works in the modern world. It's a daunting task, there is a lot to learn, and a fair bit of it does not come naturally. It is, however, very rewarding.

Understanding economics will help you to unlock many of the mysteries of the modern world. You will better understand the issues involved in making personal choices – what kind of job to choose, what course to study, what to spend money on, and whether to borrow or save. You will better understand the forces around you – what makes indicators such as interest rates, share prices, unemployment and the Australian dollar move up and down. And you will better understand the forces that shape our world today – making better sense of issues discussed in the media every day, and how Australia fits into what we describe as the global economy.

If it seems hard going at first, you should find that studying Economics gets easier as you go along. Initially, you need to understand the foundations and building blocks of modern economies – the technical aspects of how markets work, how consumers make decisions about what they want, and how businesses decide what to produce. This is the main focus of the Year 11 course and of this book. It is economics at the micro level (the level of individual agents and markets). The significance of what you learn here may not be immediately obvious, but once you have put these blocks together the bigger picture should become clear.

In the Year 12 course, the focus is on the big picture: how the global economy works and how governments manage the economy and choose between competing policy goals. This is economics at the macro level. But to understand the bigger picture of how economies function in the real world, you need a solid grasp of the foundations of economics. And that's what this book is about.

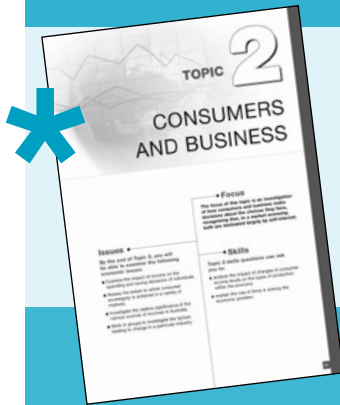
This is the twenty-second edition of *The Market Economy*, and we're as enthusiastic about this edition as we were for the first one back in 2001. This textbook is a collaborative effort of a whole team of economic researchers. Each year, the book is comprehensively revised and refined to reflect feedback from students and teachers, as well as changes in global and domestic economic conditions and developments in the economic policy environment. Our thanks to all of the team involved in the production of this textbook, both for this year and previous years.



The textbook team (L-R): Zain Ahmed, Ben Lorschy, Tim Dixon, Natalie Baker, Michael Pabos, Joel Bank, Michelle Mountford, Luke Goldman, John O'Mahony. Not pictured: Vanessa Li, Ben Robinson.

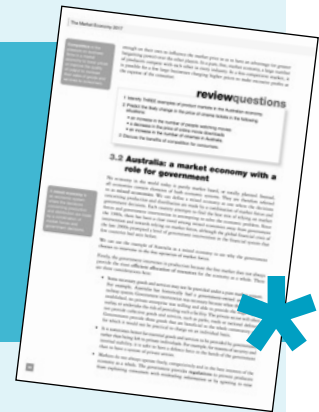
How to use this book

Congratulations on choosing *Pearson Economics 11: The Market Economy* as your Year 11 Economics text. Before you use this book, we'd like to highlight some of its key features.

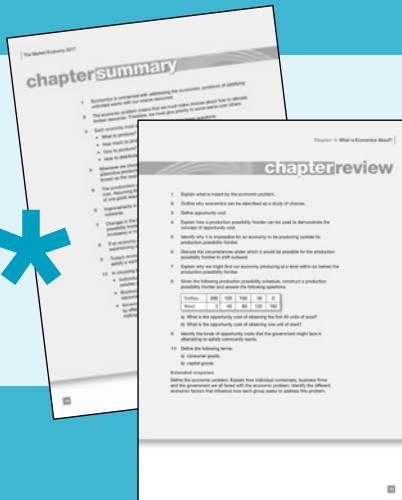


The text is divided into six Topics following the structure of the Year 11 Economics syllabus. Each Topic is introduced by a page that includes the relevant Focus, Issues and Skills for that Topic, reflecting the syllabus objectives. This is followed by an introduction to each chapter within the Topic.

As well as case studies, quotations and summaries of key information, the 2023 edition of *The Market Economy* includes regular **review questions** throughout the text and **margin definitions**.



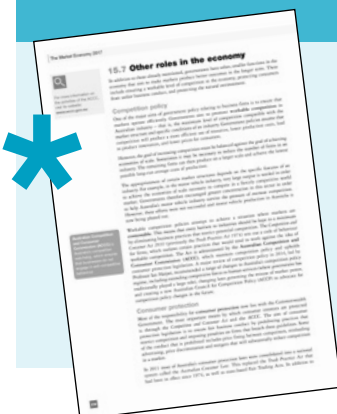
Each Chapter concludes with a 10-point **Chapter Summary** and then **Chapter Review** questions. The Chapter Summary is a good starting point for your notes on each chapter, and the review questions are a great way to test your understanding of the chapter.

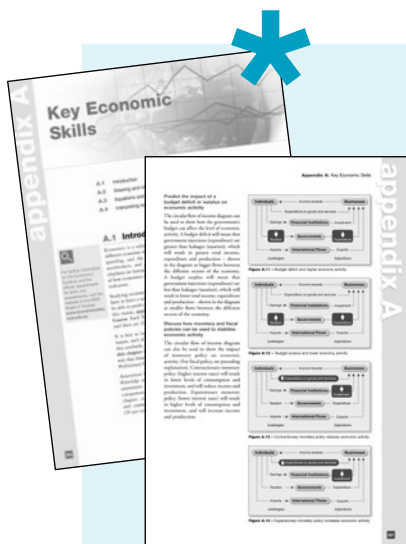


The comprehensive **Glossary** at the back of the text provides a ready reference for over 350 key economics terms and concepts.



Throughout the text you will find references to useful websites relevant to that area of study.





A unique feature of **The Market Economy** is the Appendix: **Key Economic Skills**, which gives you the opportunity to master the 26 skills of the Year 11 Economics syllabus. The Appendix covers three main areas: drawing and interpreting economic diagrams, equations and calculations, and interpreting economics data and information. By working through this material you will develop and reinforce the key economic skills.

The Market Economy Workbook Ninth Edition

The accompanying workbook *The Market Economy Workbook Ninth Edition* is a great resource to further help you in your study of the Year 11 Economics syllabus.

This year we have added enhanced answers to the workbook answers, including worked solutions for answers that require calculations and additional explanations for answers that require you to demonstrate a deeper understanding of key concepts and knowledge. These will allow you to not only confirm whether you arrived at the right or wrong answer, but to understand why.

How to access answers to the Workbook

You can download the answers to the multiple-choice and short-answer questions in the workbook by following these simple steps:

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5. Click on 'Workbook answers' from the list.



We really hope that this text makes your study of Economics more enjoyable and rewarding. The book is revised and updated each year to make sure it stays sharp and contemporary.



TOPIC

INTRODUCTION TO ECONOMICS

Issues

By the end of Topic 1, you will be able to examine the following economic issues:

- Identify the opportunity costs involved in economic decisions made by individuals, businesses and governments at local, state and national levels
- Examine the ways that the economic problem affects individuals at different income levels
- Examine the implications of unemployment and technological change using production possibility frontiers
- Compare and contrast the ways that different economies deal with specific problems or issues.

Focus

The focus of this topic is the need for choice by individuals, businesses and governments. Their decisions determine the nature of the economy and create the diversity of economies found in the world.

Skills

Topic 1 skills questions can ask you to:

- construct and interpret production possibility frontiers
- distinguish between equilibrium and disequilibrium situations in the circular flow of income model
- explain how an economy might return to an equilibrium situation from a disequilibrium situation
- identify bias in media items on economic issues affecting the local, state and national economies
- identify key features of an economy through analysis of a variety of information types and sources
- work in groups to investigate aspects of economics and economies.

Topic 1

Introduction

Topic 1 introduces some essential concepts in the study of economics. You will find that in studying economics we continually come back to these core concepts.

Chapter 1 places the study of economics within the bigger picture of human life. Economics is essentially about how we solve the economic problem of unlimited wants but limited resources – that is, how we choose between alternatives. This involves concepts of opportunity costs and production possibilities. The three groups that influence how we make these choices are individuals, businesses and governments.

Chapter 2 examines how economies operate, as well as the process that determines how economies produce and distribute goods and services. We examine the circular flow of income, a model that explains how the economy works by dividing it into five sectors and explaining the income flows between each sector. Chapter 2 finishes with a brief discussion of the concept of equilibrium, another essential economic concept.

Chapter 3 compares the different ways in which economies attempt to solve the economic problem. We compare the characteristics of a market economy, where business and consumers determine what is produced, with a centrally planned economy, where governments make the decisions about production and distribution. Australia is a mixed economy – one that combines a market economy with some level of government intervention. We look at how Australia compares to other economies in Asia across a range of indicators, including economic growth, quality of life, employment and unemployment, distribution of income, environmental sustainability and the role of government.

What Is Economics About?

1

- 1.1 The economic problem and the role of choices
- 1.2 The production possibility frontier
- 1.3 The future implications of choices
- 1.4 The economic factors underlying choices

1.1 The economic problem and the role of choices

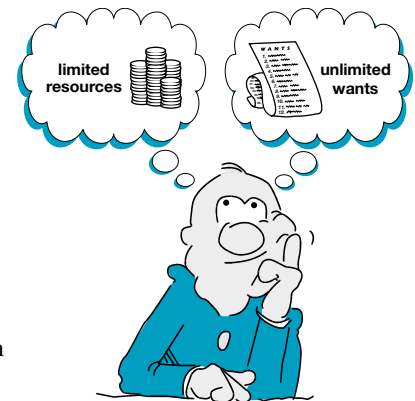
Historically, experts in economics have wrestled with one fundamental issue above all else: how to solve what we call the **economic problem**. That is, how can a society satisfy the unlimited wants (of individuals or the community) with the limited resources available? It can be summarised as follows:

- Our wants are unlimited.
- Resources are scarce – that is, the resources we have to draw from to satisfy our wants are limited.
- Since we cannot satisfy all our wants with our limited resources, we must choose between them.
- Therefore, we need to rank our preferences – we will choose our highest-preference wants, and leave some wants unsatisfied.

The study of economics is essentially about attempting to solve the economic problem – trying to allocate our limited resources for the satisfaction of our unlimited and competing wants. The economic problem can be applied to every aspect of the economy, from simple interactions between businesses and customers to larger issues such as the supply of education. Economics is the study of choices, in which each decision we make involves choosing one option but deciding against an alternative.

Understanding wants

People in all countries need to obtain **goods** and **services** for their daily lives. Goods such as food and shelter, and services such as health and education, are essential for our lives. While these are basic **needs** essential for human survival, individuals also **want** a whole range of other goods and services to make their lives easier, or give them pleasure. Economics assumes that humans pursue maximum self-interest, meaning that we have unlimited wants and limited means to satisfy them. Economics does not attempt to change the fact that we may be greedy. Rather, it attempts to help us work out which wants are our highest priority, and how we can organise production in order to satisfy the maximum number of our wants.



The economic problem is about *choices*

Wants can be defined as the material desires of individuals or the community. They are items that provide some pleasure or satisfaction when they are consumed. Economists say that individuals derive **utility** (which broadly means satisfaction or pleasure) from the consumption of goods and services. People have desires for the basic necessities of life, such as food or shelter, which we can further classify as **needs**, as well as for non-essential items, such as a pair of headphones, an overseas holiday or expensive clothing.

Individual wants are the desires of each person. An individual's desire depends on personal preferences, but can be influenced by broader social trends. The number of individual wants that can be satisfied differs from person to person, depending on their ability to purchase goods and services (that is, their level of income). Individuals who have low incomes are affected by the economic problem more severely than those on higher incomes. People who have low incomes can satisfy fewer of their wants. They may not even be able to cover the cost of basic needs such as food, housing and clothing. The less income a person has, the fewer wants they can satisfy.

Collective wants are the wants of the whole community. What is desired will depend on the preferences of the community as a whole – not only those of the individual person. Collective wants are usually provided by the government. In Australia, local government provides collective wants for local neighbourhoods, such as parks, libraries and local sporting facilities. State governments provide most wants for the wider community, such as hospitals, schools and a police force, while the Commonwealth (or Federal) Government satisfies the wants of the entire nation, such as a defence force. Governments provide collective wants by using taxation revenue collected from the community.

Our wants are **unlimited**. As soon as we have satisfied one want, we will seek to satisfy another one. Because our means of satisfying wants are limited (as a result of our limited income) we cannot satisfy them all at once. In other words, we cannot have everything we want. As a result, **we must choose between our wants**. This means that some wants will be satisfied sooner at the expense of others. Generally, the most pressing wants will be satisfied first. For example, we would satisfy our want for food before buying a new laptop.

Some wants will be **recurrent**. When we satisfy a want such as food, we are faced with the fact that we will have to satisfy this want over and over again in the future. Further examples of recurrent wants include newspapers, clothes and petrol. Other wants are complementary. A want is said to be complementary if it naturally follows the initial satisfaction of another want. For instance, when you satisfy the want for a car, you will also want petrol and car accessories.

Our wants also change over time. As people grow older, their wants change. The factors that affect these changes include age, income, technology and fashion. For example, a one-year-old wants a pram; an eleven-year-old wants a video game console; a twenty-one-year-old wants a car; and a ninety-one-year-old may want a wheelchair. As your income increases, you are able to afford more luxury goods, and you increase the range of wants that you can satisfy. Technology also introduces new wants that people seek to satisfy. A generation ago, most individuals did not own a mobile phone, whereas today they are an almost universal possession.

The key economic issues

All economies – regardless of their type – must attempt to answer the following questions:

1 What to produce?

Because of limited resources, no economy can satisfy all individual and collective wants. It must decide which wants it will satisfy first and which it will leave unsatisfied. Therefore, it must decide what goods and services will be produced.

2 How much to produce?

To allocate limited resources efficiently and maximise the satisfaction of wants, an economy must make decisions about how much of each good or service it will produce. When it produces too much of a good, resources will be wasted, and when it produces too little, the wants of some individuals will be left unsatisfied.

3 How to produce?

Having decided what and how much to produce, an economy must decide how to allocate its resources in the production process. It must look for the most efficient method of production that uses the least amount of an economy's resources so that the greatest number of wants are satisfied at any one point in time.

4 How to distribute production?

Having produced a certain range and quantity of goods and services, an economy must decide on their distribution among the population. In modern economies, each person's share of total production depends on their level of income. People on higher incomes can afford to buy more goods and services than people on lower incomes, and therefore receive a bigger share of total production. Each economy must decide whether it wants a more **equitable** (even) distribution of production or a more **inequitable** (uneven) distribution. This is a difficult question because there is often a conflict between equity and efficiency – more efficient systems may produce less equitable outcomes.

Opportunity cost

Whenever we satisfy one want, we are giving up the opportunity of satisfying an alternative want. The *real* cost of satisfying a want is, therefore, not the money we pay for it, but the next-best alternative want that we have to forgo. This cost is known as the **opportunity cost** (it is also sometimes referred to as the **economic cost** or **real cost**).

Opportunity costs can be applied to the individual, the business firm and the government:

- The individual consumer, with limited resources (represented by her limited income) may have to choose between satisfying her desire for a car and an overseas holiday. If she chooses the car, the real cost is the overseas travel that she has to forgo.
- The business firm must also make a choice in the allocation of its scarce resources. An entrepreneur who decides to produce a computer gives up the opportunity to produce something else – such as electrical appliances – with those resources.
- The government has limited resources that it can use to satisfy community wants. If the government allocates resources to constructing a new fleet of submarines, it may be at the expense of a new motorway or airport.

Opportunity cost represents the alternative use of resources. Often referred to as the *real* cost, it represents the cost of satisfying one want over an alternative want. This is also known as economic cost.

review questions

- 1 List TWO examples of each of the following types of wants:
 - a) individual wants
 - b) collective wants
 - c) recurrent wants
 - d) complementary wants
- 2 Identify which of the following are examples of opportunity costs:
 - paying \$1200 for a new smartphone
 - missing a rugby game to go to a music concert
 - missing a work shift because the bus was late
 - amalgamating local councils to expand the police force.
- 3 Explain how all societies face the economic problem, with reference to the four key economic issues.

1.2 The production possibility frontier

Production possibility frontier is a graphical representation of all the possible combinations of the production of two goods or services (or two types of goods or services) that the economy can produce at any given time.

The **production possibility frontier** can be used to demonstrate how opportunity costs arise when individuals or the community make choices. The production possibility frontier (sometimes also known as the production possibility curve) shows the various combinations of two alternative products that can be produced, given technology and a fixed quantity of resources, when all resources are used to their full capacity.

The following example of a production possibility frontier is based on a number of simplifying assumptions, including:

- the economy produces only two goods – in this case, oil and leather
- the state of technology is constant, meaning there are no technological advances in this scenario
- the quantity of resources available remains unchanged, and
- all resources are fully employed.

A simple production possibility frontier

Oil	160	120	80	40	0
Leather	0	20	40	60	80

Figure 1.1 – Production possibility schedule for oil and leather

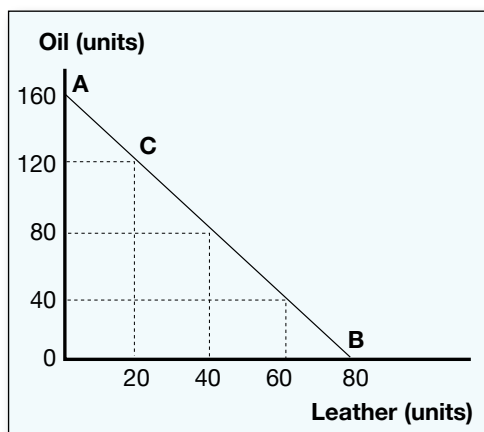
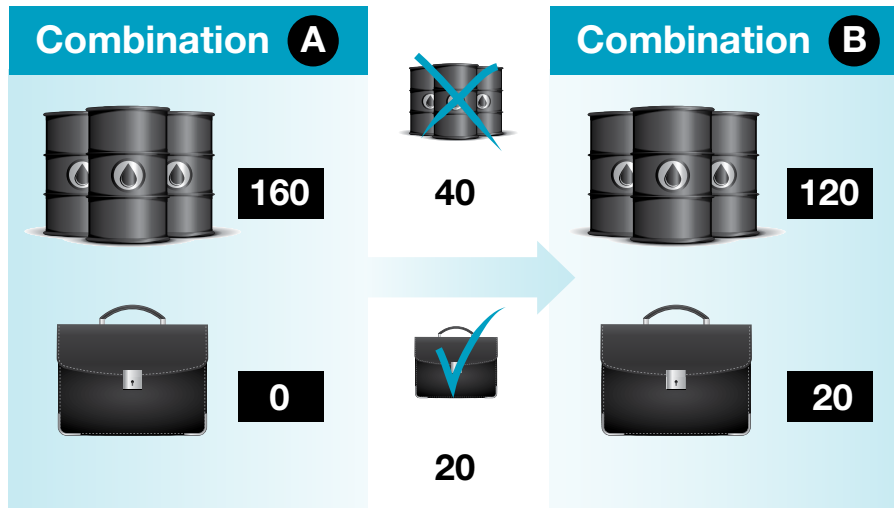


Figure 1.2 – Production possibility frontier for oil and leather

Given the above assumptions, we can construct a production possibility schedule. Figure 1.1 shows the production possibilities that would result if all our resources were used and were divided between the production of oil and leather. By graphing the data in figure 1.1, we can construct the production possibility frontier in figure 1.2.

The production possibility frontier shows all the possible combinations of production of oil and leather at a given point in time. We may choose to produce only oil and no leather (point A on the diagram), or just leather and no oil (point B), or any combination of oil and leather between these two extremes. Society must choose which combination is most desirable.

The production possibility frontier shows the maximum an economy can produce at a given point in time. All points on the frontier itself represent points at which the economy is operating at full productive capacity – that is, all resources are fully employed. If the economy were producing at a point inside the curve, it would be producing less than its maximum possible output and resources would not be fully employed.



When society wants to change its production combination, there is a cost involved – the opportunity cost. This can be seen in figure 1.2. Assume that the economy is producing at point A on the production possibility frontier (160 units of oil and no leather) but wanted to move to point C (120 units of oil and 20 units of leather). In order to get the 20 units of leather we would have to give up 40 units of oil. Therefore, the opportunity cost of obtaining the 20 units of leather is 40 units of oil.

We can calculate the opportunity cost of obtaining each individual unit of leather by dividing up the 40 oil units given up by the 20 leather units gained. Thus, for each unit of leather, we must give up 2 units of oil. In other words, the opportunity cost of leather is 2 units of oil.

New technology and the frontier

However, the production possibility frontier does not always remain the same. With the application of **new technology**, we may be able to develop more efficient methods of production. This might allow us to produce a higher quantity of a good with the same resources. This can be represented by an outward shift of the production possibility frontier.

Applying this to the previous example, an improvement in technology, such as enhanced oil extraction methods, increases the maximum production level to 200 units of oil with the same level of resources as before. Figure 1.3 shows the new production possibility frontier.

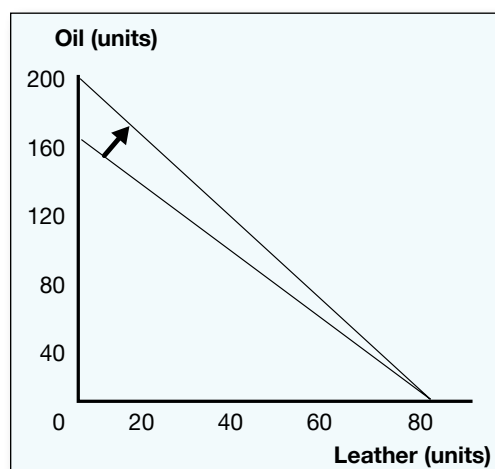


Figure 1.3 – An improvement in the technology of oil production

New resources and the frontier

Anything that increases the availability of production inputs will change the production possibility frontier. This includes discovery of new resources, or an expansion of the population through immigration, which would increase the number of people available for work. As a result of these new inputs, we would be able to produce more of both goods. This would also push the production possibility frontier outward, as shown in figure 1.4.

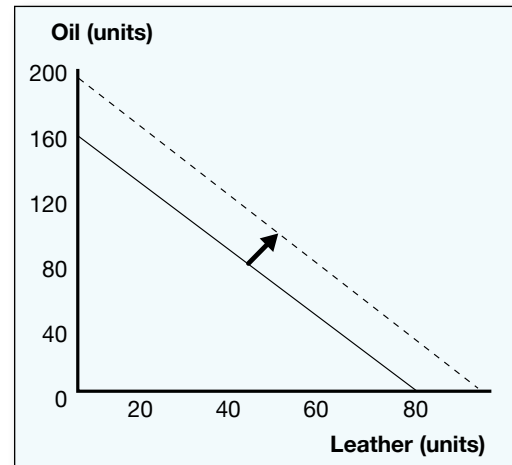


Figure 1.4 – Impact of the discovery of new resources

Unemployment and the frontier

The production possibility frontier can shed light on what occurs when an economy experiences unemployment. We usually refer to unemployment as the problem of a person being available for work but unable to find it. A similar problem may occur not just for people, but also for any input into the production process. If any resources are **not** fully employed, the frontier itself would not change, but we would change our position in relation to it. Our economy would be producing at a point somewhere within (or underneath) the production possibility frontier, as shown by point A in figure 1.5.

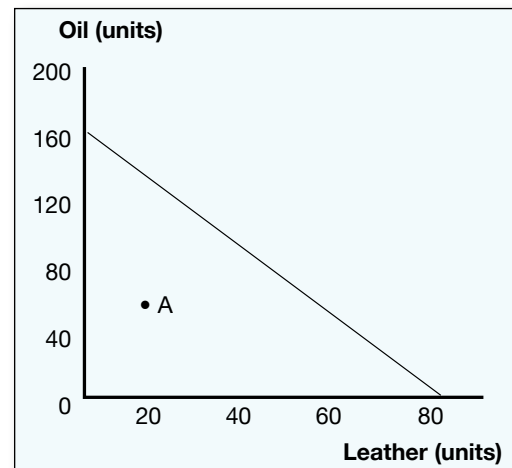


Figure 1.5 – Unemployed (or underemployed) resources

This situation indicates that we have an inefficient allocation of resources. We are not achieving a maximum satisfaction of wants with the minimum opportunity cost, which would deliver an efficient outcome. Because the economy has resources that are not being used efficiently in production, the total output of goods and services is less than what it could be. These resources would be “unemployed”.

The shape of the production possibility frontier

In the analysis so far, the production possibility frontiers have been straight lines. For this to be the case, it must be possible to shift all resources between the production of oil and leather so that the opportunity cost of producing leather is constant (in other words, the economy could substitute between the production of the two goods at a constant rate).

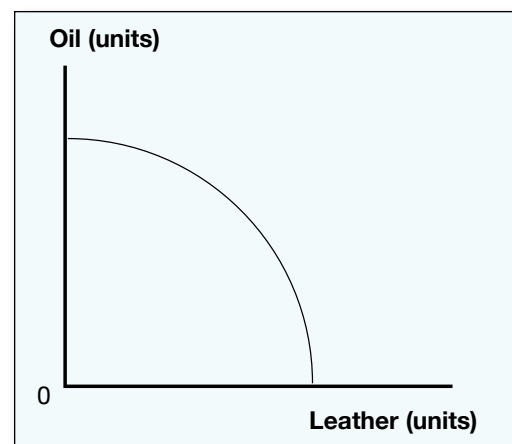


Figure 1.6 – Concave production possibility frontier

In the real world, this is generally not the case. Some resources are better suited to oil production, and others to leather – we cannot simply expect to move resources from oil production to leather without any loss of productive capacity, and vice versa. Therefore, as we move more and more resources into the production of leather, they will become less productive, which will increase the opportunity cost of leather. When this is taken into account, the proper shape of a production possibility frontier is drawn concave to the origin (as shown in figure 1.6), but the overall conclusions that have been discussed remain the same.

review questions

- 1 A factory is able to produce a maximum of 1000 espresso machines or 2000 food processors. Construct a production possibility frontier and calculate the opportunity cost of producing one food processor.
- 2 Illustrate the effects of each of the following situations on a production possibility frontier for oil and leather:
 - the invention of a new oil drill
 - an improvement in stitching technology
 - an increase in a nation's intake of working-age migrants.
- 3 Identify the change in the opportunity cost of producing more units of leather as an economy moves down to the right on the production possibility frontier shown in figure 1.6.

1.3 The future implications of choices

In making economic choices today, we can influence economic outcomes in the future. In a general sense, an economy as a whole can choose between producing goods that satisfy consumer demand immediately (**consumer goods**) and goods that will increase our productive capacity in the future (**capital goods**), such as machinery. While capital goods do not satisfy consumer wants now, they will allow us to satisfy these wants in the future by expanding our ability to produce. The trade-off between producing consumer goods and capital goods is represented in figure 1.7.

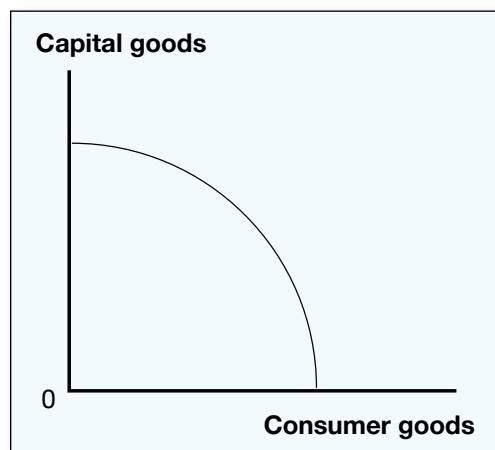


Figure 1.7 – The choice between consumer and capital goods

In the long run, an economy that focuses more on the production of capital goods will increase its productive capacity and experience a higher level of economic growth. A country that is producing at a higher point on the frontier will, in the long term, be able to satisfy its consumer wants better than a country at a lower point on the frontier. In effect, the country choosing to produce more capital goods now is making the choice to forgo satisfying some wants today so it can satisfy a greater number of wants tomorrow.

Consumer goods and services are items produced for the immediate satisfaction of individual and community needs and wants.

Capital goods are items that have not been produced for immediate consumption but will be used for the production of other goods.

The principle that economic decision making has future implications is true for individuals, businesses and governments. For example:

- An **individual** may choose to go without an overseas holiday or extravagant lifestyle and instead take out a mortgage and purchase a house. Saving up for a deposit will represent a significant sacrifice for many individuals, only to be followed by years of scrimping to pay off the mortgage. In the longer term, however, home ownership improves an individual's financial security, as they will not have to pay rent and will also have an asset that they can pass on to their children when they die.
- A **business** must choose to focus on one area of business activity over another. Businesses have a limited amount of labour, capital, entrepreneurial skill and other resources, so they must focus on the products in which they are likely to maximise profit. This involves a difficult assessment of which areas of business activity they can be most successful in over the medium to longer term. Businesses are likely to be most effective if they can identify where the next wave in business growth is likely to come from. For example, many businesses that invested in communications and information technology have achieved extraordinary financial success. If a business only chooses to operate where other businesses have already been successful, they may find that they have entered the market too late and are unable to obtain a competitive advantage.



The future implications of education for individuals

One of the most important economic decisions made by individuals is whether to invest in further education beyond high school. While students might prefer to hang out at the beach or go on an overseas holiday than be stuck in a classroom, most choose to sacrifice some enjoyment now in order to add to their education and improve their workforce skills. This should expand their job options and increase their future income.

Evidence confirms that education, particularly tertiary education, does improve individuals' earning potential. According to the 2021 Graduate Outcomes Survey, the median salary for new graduates with a bachelor's degree is \$65,000 a year in their first year, up from \$64,700 in 2020. While this is almost 30 per cent below the average annual earnings for all Australian full-time workers, research shows that higher-education graduates earn around 20 per cent more over their working lives compared with people who leave school after Year 12. Dentistry graduates enjoy the highest median starting salary (\$100,000), followed by medicine (\$76,000), social work and education (both \$72,000), and engineering (\$70,000).

The survey also noted that university graduates enjoy better job prospects. Among university graduates, 68.9 per cent are able to find full-time employment soon after entering the job market, compared to only 60.7 per cent of non-university graduates. The overall employment rate (including part-time work) is also notably higher at 84.8 per cent for university graduates, compared to 79.2 per cent for non-university graduates.

Furthermore, completion of a higher education or Vocational Education and Training (VET) qualification is increasingly a prerequisite for access to, and successful participation in, the labour market. A report by the National Skills Commission found that nine out of every ten new jobs will require post-school qualifications in the next five years. Further, 71 per cent of Australians aged 20 to 64 years held post-school qualifications in 2021, up from 60 per cent in 2009.

A decision to invest in education may require sacrifices in the short term, but it will pay off in the future.

- The decisions of **governments** have very important long-term implications, both for governments themselves and for the entire economy. A government may choose to give the highest priority in its spending to satisfying immediate needs, such as increased welfare benefits and health care. As a result, it may provide less funding for other areas of expenditure, such as education, infrastructure, and research and development. In the longer term, this is likely to result in a lower level of economic growth, because the country will have a lower skills base in its workforce, less innovation and weaker infrastructure (such as an inadequate transport system or limited bandwidth in its communications systems). The difficulty for governments is that in the short term it may be more politically popular to satisfy immediate wants than to plan for future needs.

reviewquestions

- 1 List TWO examples of a capital good and TWO examples of a consumer good.
- 2 Describe the costs and benefits of producing capital goods in an economy.
- 3 Outline a possible future economic benefit for each of the following choices:
 - saving money in a bank account
 - pursuing tertiary education
 - working beyond the retirement age.

1.4 The economic factors underlying choices

In the process of making economic choices, all participants in the economy must weigh up a range of factors relating to their short- and long-term objectives. The following section reviews some of the factors that affect the economic decision-making process for individuals, businesses and governments.

Individuals

The economic choices made by individuals are shaped by a variety of factors, including their age, income, expectations, future plans and family circumstances. Personality factors will also influence economic decision making; for example, some people are keen to embrace change and risk, while others will avoid risk and prefer security.

Whatever their level of income, individuals must make a choice about how much of that income they will **save** and how much they will **spend**. This will, of course, be influenced by their income level, as well as a range of other factors, such as age, the performance of any assets they hold and their expectations of whether their income is likely to rise or fall in the future.

Plans in relation to education, work, family and retirement also play a substantial role in influencing economic decision making. The decision to undertake further education may involve forgoing income for several years, although in most cases it will be rewarded with higher income in the longer run. In the meantime, the individual's ability to consume will be restricted by their limited income. When a couple decides to start a family, they may have to cut down on personal expenditure and one partner may reduce their working hours and income to care for young children. Later in life, the decision to retire involves adjusting to a much lower income when more free leisure time may give an individual more opportunities to consume.

Individuals also contribute to economic decision making by voting in elections. Economic policy issues are a central feature of political debate in Australia, and they are major priorities of government programs and election campaigns. Political parties regularly debate who is best at managing the economy and the budget, and which party is most likely to deliver lower levels of unemployment, inflation and interest rates. Elections involve individuals making a choice about who to vote for, and economic policies, especially on tax and infrastructure, significantly influence voting behaviour.

Business

Firms face choices in many aspects of their business operations. In pricing its products, a business may choose a higher price, hoping that this will maximise profits and only have a small impact on the level of sales. The pricing decisions that businesses make are also based on their marketing strategy – whether they are trying to sell a product to the mass market or target a more exclusive group of consumers.

In making decisions relating to production and resource use, businesses will seek to minimise their costs and maximise quality. This may sometimes involve difficult choices; for example, a business may face higher costs in the purchase of better quality equipment, but the equipment may have a longer operating life and require less maintenance. Businesses will generally choose inputs that are cheaper, but if the supply of a cheaper input is not assured, they may choose to pay slightly more for an input that has a more reliable supply. Businesses may also need to consider ethical issues, such as the importance of the natural environment. For example, a business may consider whether it is willing to pay a higher price for using inputs that are more environmentally sustainable (such as paper rather than plastic wrapping).

Businesses can also face complex choices in how they manage industrial relations issues. Businesses can choose to employ people on wage levels set by industrial awards; they can negotiate wage agreements with their whole workforce; or they can negotiate individual contracts with their staff. They also face choices about whether they will encourage union representation or involvement from employees in decision making.

Government

Governments can have a significant influence over the economic choices of individuals and business. This influence may include making it less or more expensive to make some choices. For example, by taxing cigarettes more heavily, governments attempt to discourage individuals from smoking.

In more extreme situations, governments may seek to influence economic behaviour by prohibiting certain activities and imposing heavy penalties on those who break the law. For example, businesses operating in the same industry are prohibited from meeting together to set prices for their industry, because this degrades competition and harms the interests of consumers.

Equally, governments may wish to encourage certain economic activities and may provide incentives for them. For example, in order to encourage individuals to join a private health insurance scheme, the Australian Government provides a tax rebate of up to 33 per cent to low- and middle-income earners for private health insurance payments, and imposes the Medicare levy surcharge (a tax penalty) on higher-income earners who do not take out private health insurance. Private health insurance coverage now extends to around 55 per cent of the population, compared with 30 per cent before these policies were introduced.

The government's influence on the economy is a result of both influencing the decisions of individuals and businesses, and providing goods and services directly.

review questions

- 1 Outline THREE economic factors that may cause people to increase their level of saving.
- 2 Describe how each of the following business strategies could maximise business profits:
 - raising the selling price
 - lowering the selling price
 - purchasing more efficient capital goods
 - offering higher salaries to staff.
- 3 Identify TWO examples of business activities that the government may wish to encourage, and TWO business activities the government may want to discourage or ban altogether.

chapter summary

- 1 Economics is concerned with addressing the **economic problem** of satisfying unlimited wants with our scarce resources.
- 2 The economic problem means that we must make choices about how to allocate limited resources. Therefore, we must give priority to some wants over others.
- 3 Each economy must answer the following four basic questions:
 - What to produce?
 - How much to produce?
 - How to produce?
 - How to distribute production?
- 4 Whenever we choose to produce or consume one product, we miss out on the alternative products that could have been produced using those resources. This is known as the **opportunity cost**.
- 5 The **production possibility frontier** is a simple way of explaining opportunity cost. Assuming that only two goods are produced, it shows that producing more of one good requires us to produce less of the other.
- 6 Improvements in **technology** will cause the production possibility frontier to shift outwards.
- 7 Changes in the levels of **resources** will change the position of the production possibility frontier, moving it outwards (when the level of available resources increases) or inwards (when the level decreases).
- 8 If an economy is producing at a point below the production possibility curve, then it is experiencing **unemployment** of resources.
- 9 Today's economic choices affect tomorrow's economic outcomes. If we choose to satisfy a want today, we may not be able to satisfy a want in the future.
- 10 In choosing between satisfying present or future wants:
 - **Individuals** must make choices between spending or saving. Spending satisfies present wants while saving raises future living standards.
 - **Businesses** must make choices about price, how much to produce, what resources to use and how to manage their employees.
 - **Governments** can influence the choices of individuals and businesses by affecting the cost of choices and other factors underlying their decision-making processes.

chapter review

- 1 Explain what is meant by the *economic problem*.
- 2 Outline why economics can be described as a study of choices.
- 3 Define *opportunity cost*.
- 4 Explain how a production possibility frontier can be used to demonstrate the concept of opportunity cost.
- 5 Identify why it is impossible for an economy to produce outside its production possibility frontier.
- 6 Discuss the circumstances under which it would be possible for the production possibility frontier to shift outward.
- 7 Explain why we might find our economy producing at a level within (or below) the production possibility frontier.
- 8 Given the following production possibility schedule, construct a production possibility frontier and answer the following questions.

Beef	200	150	100	50	0
Tea	0	30	60	90	120

- a) What is the opportunity cost of obtaining the first 30 units of tea?
 - b) What is the opportunity cost of obtaining one unit of tea?
- 9 Identify the kinds of opportunity costs that the government might face in attempting to satisfy community wants.
 - 10 Define the following terms:
 - a) consumer goods
 - b) capital goods.

Extended response

Define the *economic problem*. Explain how individual consumers, business firms and the government are all faced with the economic problem. Identify the different economic factors that influence how each group seeks to address this problem.

2

How Economies Operate

- 2.1 The production of goods and services
- 2.2 The distribution and exchange of goods and services
- 2.3 The business cycle
- 2.4 An overview of the economy: the circular flow of income

2.1 The production of goods and services

Goods and services are the outcome of the production process. They are the products that satisfy our wants and needs. Goods are tangible things such as food, cars and electronic equipment, while services are intangible acts that are of benefit to us, such as receiving medical help or watching a movie.

Factors of production are any resources that can be used in the production of goods and services. The four main types are natural resources (or land), capital, labour and enterprise.

A **factor of production** can be defined as any resource that can be used in the production of goods and services. A factor of production, therefore, is simply another name for a resource or input. The quantity and quality of an economy's factors of production (or resources) can influence how wealthy or poor that country will be. Thus, the people in a country with abundant, high-quality resources would be better able to satisfy their wants, and they would have a much higher **standard of living**, or quality of life, than people in a country with fewer, poorer-quality resources.

As outlined in Chapter 1, the supply of these resources is limited. Therefore, producers face an opportunity cost when they are deciding how to use resources in the production process. Over time, this decision can be affected by the availability of the factors of production. For example, the size and quality of the labour force may change as educational standards improve, and higher investment in plant and machinery would lead to an increased availability of capital. Alternatively, environmental damage may reduce the quantity of natural resources that can be used in the production process.

There are four factors of production in an economy: natural resources, labour, capital and enterprise. The return (reward) to the owners of these resources are rent, wages, interest and profit, respectively.

RESOURCE	Natural resources	Labour	Capital	Enterprise
REWARD	Rent	Wages	Interest	Profit

Natural resources

Natural resources include all naturally occurring materials that are used in the production process (sometimes also called *land* as shorthand for all natural resources). It includes items such as soil, water, forests, mineral deposits and fishing areas.

The reward to the owners of natural resources is called **rent**. This use of the concept of rent goes beyond the idea of renting property. It covers all the income rewards derived from the productive use of natural resources.

Labour

Labour is human effort, both physical and mental, used to produce goods and services. The supply of labour for production depends on a number of factors, and these can change over time. The size of a country's population is obviously important in determining how much labour is available. Population size will be influenced by birth rate, death rate, and immigration. Other factors that influence the availability and quality of labour resources include the school leaving age, the retirement age, social attitudes towards the role of women in the workforce, the availability of child care, educational standards and the amount of on-the-job training.

Wages are the reward to the owners of labour. Again, economists use this term in a wider sense than its common usage. As well as regular payments for a standard working week, the term wages includes executive salaries, commissions, fees for professionals and the earnings of self-employed people.

Capital

Capital is the “produced means of production.” This means that capital goods are not produced for immediate consumption, but to be used in the production of other goods and services. Examples of capital include machinery, tools, factories and computers. These types of capital goods are generally owned privately by individuals or firms. **Infrastructure** (or social overhead capital) is another form of capital that is usually owned by the community as a whole. Infrastructure includes roads, railways, bridges, telecommunications networks and schools. Although most of this capital is not owned by businesses, its existence is vital for them to operate – for example, good roads are necessary for the transport of goods, and a reliable power supply is necessary to operate machinery. It is important to note that economists' definition of capital does not include financial assets such as money, shares, stocks and bonds.

Capital equipment can greatly increase the **productivity** of other resources – that is, how much output they can produce per factor of production per unit of time. Using capital goods can increase the level of production from the existing workforce and natural resources, enabling us to satisfy more wants than would otherwise be possible. The amount of capital available can therefore have a significant effect upon the future earning capacity of an economy.

Funds become available for entrepreneurs through other people's savings. Entrepreneurs borrow money that has not been spent by consumers (known as their savings), which can then be used to invest in capital goods. In effect, when consumers save money rather than spend it, they are shifting resources from consumer goods to capital goods.

The owners of capital are rewarded by earning **interest**. When entrepreneurs borrow the excess savings in the economy, they pay interest on their loans. This interest is the price of capital. Alternatively, for those firms and entrepreneurs who invest their own surplus funds in capital equipment, the interest rate they could earn if they simply put the funds in a bank account represents the opportunity cost of investing in capital.

Enterprise

Enterprise involves organising the other factors of production (natural resources, labour and capital) for the purpose of producing goods and services. It is the vital ingredient that brings the production process together. The entrepreneur makes the management decisions concerning all aspects of production and bears the risk that these decisions may not be the correct ones. The right decisions will mean a successful business, the wrong ones may result in failure.

Profit is the return to enterprise. This is not merely revenue earned minus actual expenses. Entrepreneurs are entitled to receive rent for the use of any land that they own in the production process, wages as a return for their work effort and interest for any capital invested into the business. Profit is the income received over and above these other rewards. It is earned because the entrepreneur sets up and runs a successful business despite the considerable risk of failure.

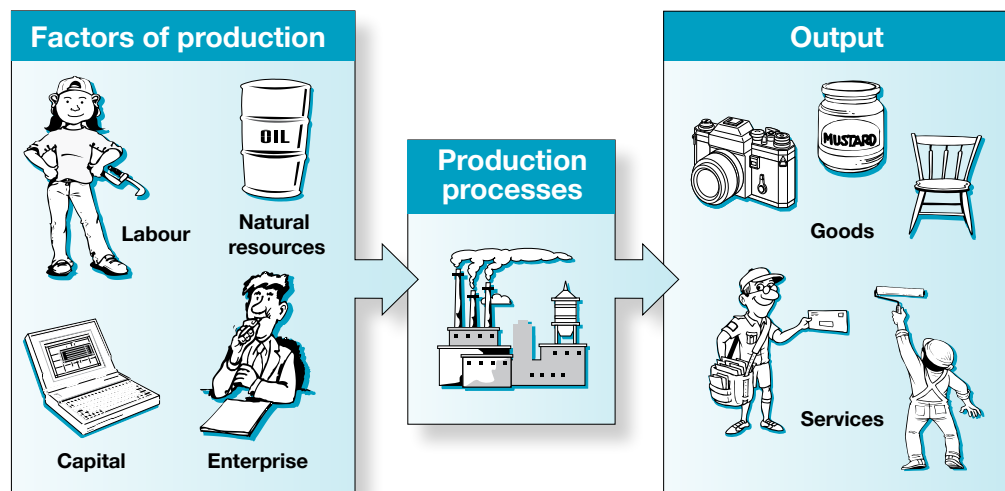


Figure 2.1 – Combining natural resources, labour, capital and enterprise

Each of the four resources is limited in its supply, reflecting the **problem of scarcity** in economies:

- There are limits to the amount of natural resources available for production, including land, fossil fuels or even clean air and water.
- Our supply of labour is limited by our population size, labour market skills and people's willingness to work.
- Our supplies of capital are limited by the extent to which governments and the private sector are willing to invest, as well as the level of domestic (or overseas) savings available for investment.
- The supply of entrepreneurial skills is also limited by the size of the population and a range of other cultural and economic factors, including – most importantly – the ability and willingness of individuals to innovate and take risks.

In a market economy, decisions about how scarce resources are allocated in production are largely determined by consumers' spending patterns. Firms will respond to consumer demand by obtaining the resources necessary to produce the items consumers want. Motivated by the main aim of making a profit, firms pay for the resources and labour skills that are necessary to produce those goods and services that are in demand. Therefore, efficient industries that face growing consumer demand and higher prices will be able to attract more resources. Furthermore, those resources that are relatively cheaper will be more attractive for profit-maximising firms.

Business firms can often use several different combinations of resources. Therefore, the business must decide which combination of resources to use in the process of production. Depending on which factor is used in greater proportion, the method of production may be more labour-intensive (where more labour is used relative to other factors) or more capital-intensive (where relatively more capital is used).

review questions

- 1 Identify the major factor of production used in each of the following activities:
 - providing child care
 - production of motorcycles
 - managing a small business
 - emu farming.
- 2 Describe ONE example of a capital good that would increase the productivity of labour.
- 3 Outline how the problem of scarcity affects the supply of land and natural resources in the economy.

2.2 The distribution and exchange of goods and services

Working out how to distribute what an economy produces is difficult. We have to strike a balance that provides rewards for investment, entrepreneurs and innovation, as well as ensuring that everyone has an acceptable quality of life.

The total amount of goods and services produced in an economy in a given year is known as **Gross Domestic Product**, or **GDP**. GDP also measures the total income of a society that is received for the production of goods and services. One of the main functions of an economic system is to determine how to distribute and exchange the goods and services produced in the economy. Usually this involves assigning each individual a certain level of income, which commands for him or her a certain proportion of the output produced. Individuals can then exchange this income with others to obtain goods and services.

Market economies do not attempt to distribute output equally within society. Instead, market economies **provide people with income** as a reward for their contribution to the production process. The owners of natural resources, capital or entrepreneurial skill used in production receive income based on the value of their input. Workers are paid according to the value of their labour. The price that is paid for inputs determines the individual's share of total output and will generally depend on how scarce or highly demanded their resources are. Rent of land in the centre of the city, or the labour of a highly skilled manager, involves a larger sum of money because city land and sophisticated management skills are in high demand and scarce supply.

Figure 2.2 shows the proportion of total income (or output) for Australian households that comes from labour (called compensation of employees) compared with the owners of the other factors of production. During recent decades, the distribution of output has been relatively stable. Separately (and not shown in figure 2.2), wages have shrunk as a share of the overall economy, while corporate profits have been increased – but this is a different issue to the sources of household income.

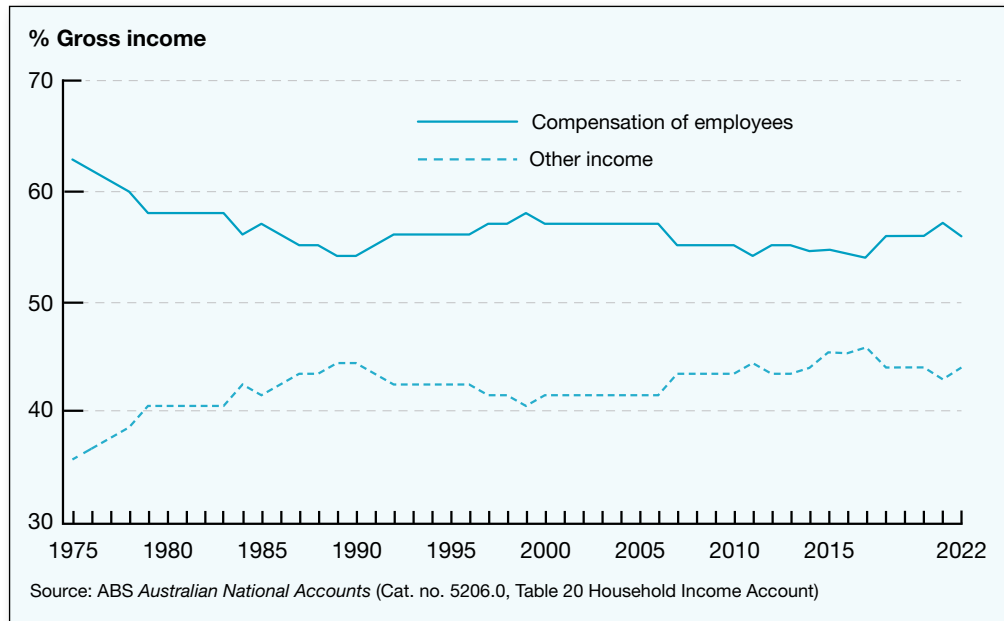


Figure 2.2 – Distribution of total gross income

In addition, individuals do not all receive the same level of wages. Workers' income levels are influenced by how much they work, their skills and expertise, educational qualifications and their bargaining power in wage negotiations with employers. How such factors can influence the distribution of income between workers will be discussed in more detail in Topic 4, in our analysis of the labour market.

The benefit of such a system of distribution is that it provides incentives for people to obtain better skills and work harder in order to improve their share of output, or to develop entrepreneurial skills and start their own business. This will improve the resource base and encourage innovation and technological advancement.

However, the problem with this system of distribution is that it can be unfair, particularly for people who are unable to contribute to production because of illness, age or disability. Those with less bargaining power may also be unable to secure a fair return for their labour input. Therefore, governments may decide to intervene to correct inequitable market outcomes and help people who would otherwise not receive an adequate level of income. In this way, governments can influence the distribution of goods and services: in effect, by taking money from higher-income earners through taxation, and redistributing it to lower-income earners through social security payments.

Individuals and businesses generally use money as a **medium for exchanging goods and services**. This makes it easier for people to conduct transactions when only one party is interested in what the other has to offer. In other words, the existence of money as the basis of exchange allows individuals to specialise in how they contribute to the production process. Even local services such as babysitting, cleaning and home repairs are generally paid for in cash rather than by the exchange of another good or service. However, this form of exchange can occur. The non-cash exchange of goods and services is known as **barter**. Bartering was common in earlier societies, but is rare in an advanced economy with a stable currency. Nevertheless, in recent years there has been a small resurgence of bartering through online swapping sites. The Australian Tax Office guidelines note that barter transactions are subject to the same tax rules as for cash and credit transactions (such as GST and income tax liabilities). Additionally, the growth of cryptocurrencies in the past decade, such as the digital payment system Bitcoin, has created new forms of exchange using digital currencies. Cryptocurrencies resemble cash in that they are a medium of exchange but operate outside of the central banking system.

review questions

- 1 Explain how the distribution of income in an economy may influence the distribution of output.
- 2 Outline the role of factors of production in the distribution of income.
- 3 Identify ONE disadvantage of a barter economy.

2.3 The business cycle

On the basis of our discussion so far, we might assume that economies grow and change in a stable pattern. In reality, the level of economic activity – the amount of goods and services produced in a given period of time – is never constant. Market economies such as Australia's are subject to a cycle of ups and downs known as the **business cycle** (also sometimes called the economic cycle). This is shown below in figure 2.3.

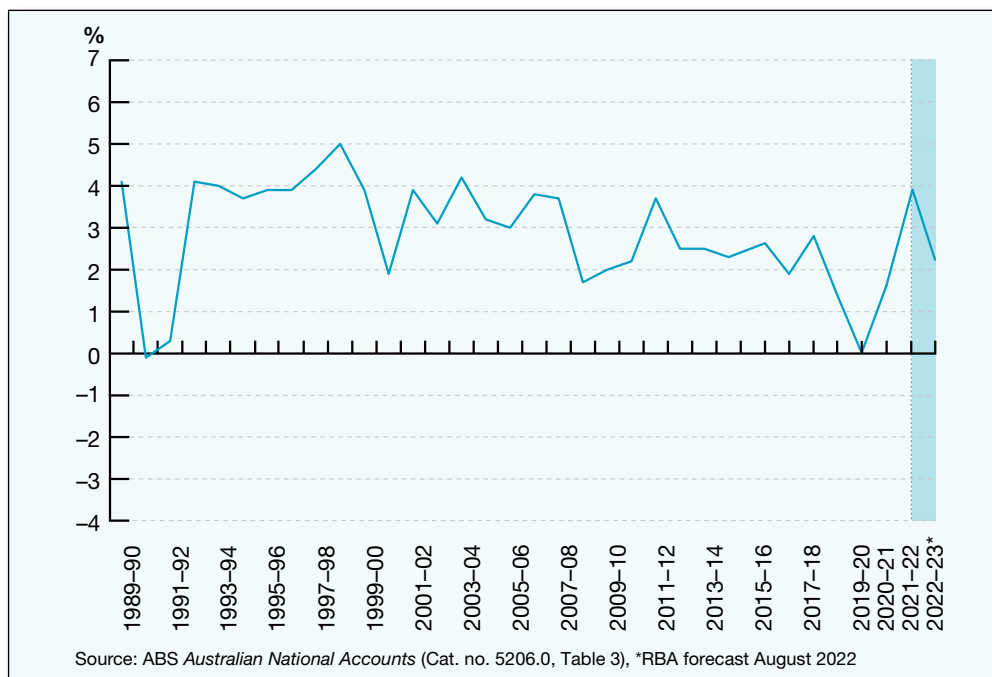


Figure 2.3 – Australia's economic growth performance

Over time, economies usually experience an overall trend of growth in their **output**. However, they are subject to a continuing pattern where a period of strong growth is followed by an economic slowdown, in which the level of economic activity often falls. The economy may then stay weak for some period of time before recovering, gradually achieving a faster level of economic growth, peaking and then slowing again. Although the performance of economies is rarely exactly the same as this model of the business cycle, in broad terms the cyclical pattern of growth recurs in market economies.

The cyclical pattern of economic activity presents problems for a society. Cyclical flows cause significant disruptions for both individuals and businesses. During periods of economic downturn, known as **recessions**, firms usually postpone plans for new investment, reduce their production and reduce their demand for labour. As a result, employment falls and many people can become unemployed.

The **business cycle** refers to fluctuations in the level of economic growth due to either domestic or international factors.

Recession is the stage of the business cycle where there is decreasing economic activity, defined as two consecutive quarters (six months) of negative economic growth, that is, a fall in GDP.

The increase in unemployment has negative effects for consumers. Families are forced to rely on their savings and social security payments to meet expenses while their normal sources of income have dried up. As those who have become unemployed reduce their consumption, the economy can contract further and more people may be put out of work. As unemployment rises, more people fall below the poverty line. As living standards fall, health problems can rise, educational opportunities may be disrupted and social problems such as crime and suicide can increase. Together, these effects will result in a lower **quality of life**.

During an economic upturn, the opposite is the case. A **boom** in economic growth is associated with increased investment and production. This increases demand for labour and leads to falling unemployment levels. Therefore, an economic upturn tends to increase the disposable income available to most consumers, which may lead to a further expansion of the economy as consumption levels rise. An improvement in quality of life occurs during an upturn as poverty levels fall.

IMPACTS OF THE BUSINESS CYCLE

Recession	Boom
Falling production of goods and services	Increasing production of goods and services
Falling levels of consumption and investment	Rising levels of consumption and investment
Rising unemployment	Falling unemployment
Falling income levels	Rising income levels
Falling quality of life	Rising quality of life

Because a prolonged downturn in the business cycle can have such negative effects, one of the main economic aims of governments is to smooth out the cycle. Governments step in to stimulate economic growth during periods of recession to restore the economy to growth and improve employment opportunities. In the longer term, governments also attempt to ensure that the economy can sustain economic growth for a longer period of time to avoid any major economic downturn. When the COVID-19 pandemic hit the Australian economy in 2020, the Federal and State Governments responded with international travel restrictions, border closures, and lockdowns that dramatically curbed economic activity, pushing Australia into its first recession in almost three decades, as shown in figure 2.3. Even with unprecedented policies to keep people in jobs and help businesses to ride out a period of weak economic activity, during this period employment fell by almost one million people. However, the economy recovered quickly from the pandemic, and by 2022 unemployment was below its pre-pandemic level. In this instance, a sharp downturn in the business cycle was engineered by the government (to save lives during the pandemic) but was also quickly reversed through successful government policies.

reviewquestions

- 1 Outline the effect of a recession on each of the following:
 - payments of unemployment benefits
 - business investment plans
 - income levels.
- 2 Identify the year in which the last recession occurred in the Australian economy.
- 3 Describe the economic effects of a boom in the business cycle.

2.4 An overview of the economy: the circular flow of income

Economists sometimes build theoretical models that can help to describe features of economic activity. An example of this is the **five-sector circular flow of income model**, which describes the operation of the economy and the linkages between the main sectors in the economy.

The circular flow of income model is based on dividing the economy into five sectors, as shown in figure 2.4. A sector may be defined as a part of the economy where the participants are engaged in a similar type of economic activity. We can divide the Australian economy into five such sectors – **individuals**, **businesses**, **financial institutions**, **governments** and **international trade and financial flows**.

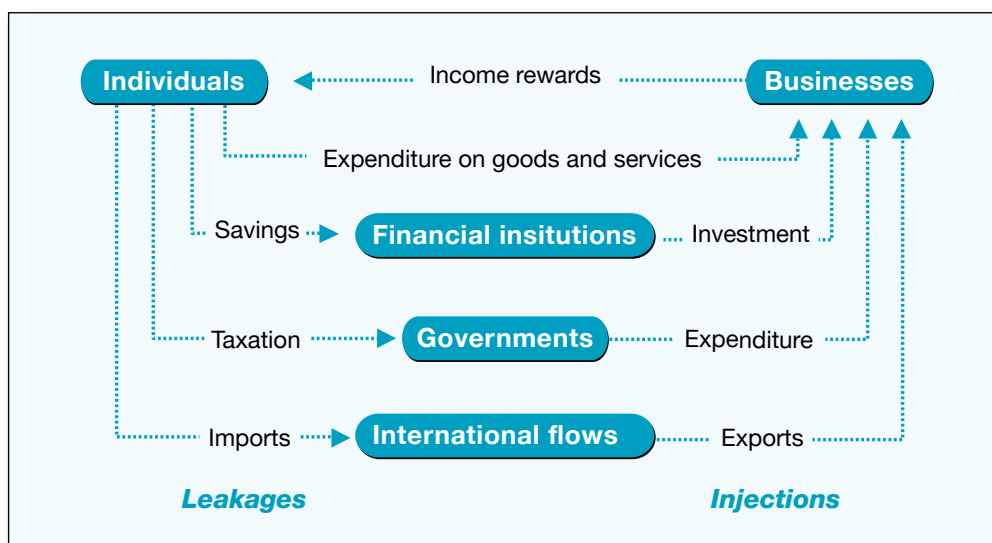


Figure 2.4 – The five-sector circular flow of income model

Individuals

This sector consists of all individuals in the economy. It is concerned with their activities in earning an income and spending it on goods and services. These individuals are the owners of productive resources and the consumers in our economy.

Individuals supply factors of production (inputs) such as labour and enterprise to businesses, which they use to produce goods and services. As a reward for supplying resources such as labour and enterprise to firms, individuals receive incomes in the form of rent, wages, interest and profit.

Individuals' income goes either to spending on consumption of locally produced goods, savings, paying tax or purchasing imports.

Businesses

This sector consists of all the business firms engaged in the production and sale of goods and services (apart from financial services, which are included in the financial sector). It concerns all their activities involved with buying factors of production, and using them to produce and sell goods and services.

Businesses depend on individuals to supply the resources needed for the production process, as well as the consumption of goods and services produced. Without individuals, businesses would not exist. Similarly, individuals depend on businesses to produce the goods and services that they demand, as well as provide the income to buy them. Without businesses, individuals would find it difficult to survive. In other words, individuals and businesses need each other – they are interdependent.

It is important to note that the circular flow diagram depicts the flow of money between individuals and businesses, rather than the flow of goods and services or factors of production.

Financial institutions

This sector consists of all those institutions that are engaged in the borrowing and lending of money. They act as the intermediaries between savers and borrowers of money. It includes organisations such as banks, building societies, finance companies, credit unions, superannuation funds and life insurance companies.

Financial institutions are needed for individuals and firms to be able to undertake saving and investment. Financial institutions (sometimes also known as the **capital market**) are the third sector in our economy. This sector is made up of all the financial intermediaries that accept savings (deposits) from individuals and lend them out to businesses for investment purposes. Therefore, the financial institutions perform the function of mobilising savings so that they can be used for investment.

Leakages are the items that remove money from the circular flow of income, decreasing aggregate income and the general level of economic activity. The three leakages are savings, taxation and imports.

Savings represents a **leakage** from the circular flow, as savings involves money that is put aside and withdrawn from the circular flow of income. This leakage leads to a reduction in the size of the circular flow of income, which also means a reduction in the level of economic activity. When individuals decide to save part of their income, this upsets the state of equilibrium in the economy, and as a result the level of economic activity will change.

The following example, based on figure 2.5, demonstrates the effect of savings on the size of the circular flow of income:

Year	Value of output \$m	Household income \$m	Household expenditure \$m	Household savings \$m
1	1000	1000	1000	0
2	1000	1000	900	100
3	900	900	810	90
4	810	810	729	81
5	729	729	656.1	72.9

Figure 2.5 – The effect of savings on the size of the circular flow

- **Year 1:** Firms produce \$1000 million worth of output, which generates \$1000 million income to individuals, which they spend on consumer goods. Because at this stage they save nothing, the value of output generated in the next time period (year 2) remains the same at \$1000 million.
- **Year 2:** Firms have produced \$1000 million worth of output, which generates \$1000 million income to individuals. This year, however, and in each subsequent year, individuals decide to save 10 per cent of their income. Therefore, expenditure drops to \$900 million, and we have \$100 million of savings.
- **Year 3:** Because of reduced expenditure caused by individuals saving part of their income, firms cut back on production. The value of production in year 3 is now \$900 million. This fall in production means that firms demand fewer resources (for example fewer workers will be employed) and individuals receive less

income (income will drop to \$900 million). As individuals save 10 per cent of this, expenditure will come down to \$810 million and savings to \$90 million.

This same scenario is repeated in subsequent years, with the leakage of savings causing a fall in expenditure on goods and services, a fall in production, a fall in the demand for resources and a fall in income to the owners of those resources. Left to itself, the leakage of savings will progressively reduce the size of the circular flow of income (level of economic activity) until it ceases to exist. In other words, our economy would be faced with a cycle of falling expenditure, falling production, falling income and rising unemployment until it eventually collapsed. In order to stop this from happening there must be something to counteract the leakage of savings, namely an **injection of investment** (see figure 2.6).

In fact, savings are essential if investment is to occur, allowing the creation of new capital goods. The acts of saving and investing are vital for the growth and prosperity of our economy. By forgoing some current consumption of goods and services, we can invest in capital goods and improve the future productive capacity of the economy. This actually increases our stock of productive resources (capital being one of the four factors of production) and allows us to produce an even greater volume of goods and services in the future.

Investment is defined as any current expenditure that is made in order to obtain benefits in the future. For example, the purchase of new capital goods, such as machinery, by businesses is investment – firms must make a capital expenditure now in order to gain profits in the future from the output the machine will help to produce. Investment represents an injection into the circular flow and, as such, has the opposite effect to a leakage – increasing the size of the circular flow of income (and therefore increasing the level of economic activity).

When firms undertake investment expenditure they increase the demand for capital goods. This stimulates production in the firms that produce them, who in turn demand more resources. As more resources are employed, individuals' incomes will increase, stimulating a further increase in the demand for consumer goods and services, which in turn means even more resources will be employed, and higher incomes generated. In other words, spending on investment would lead to rising expenditure, production, employment and income levels in the economy.

Overall, individuals, businesses and financial institutions together make up the **private sector** in our economy.

Governments

In Australia, the government sector consists of the three levels of government – Commonwealth, state and local. The government sector helps to satisfy collective (community) wants such as roads, railways, schools, hospitals and defence. It obtains the resources to do this by imposing taxes on the other sectors in the economy.

The government plays two major roles in the circular flow of income. Firstly, it imposes **taxes** on individuals and businesses, and secondly, it uses this tax revenue to undertake various **government expenditures**.

Taxation represents a leakage from the circular flow. When individuals pay income tax, this reduces the amount of money they have to spend on goods and services. Similarly, when the government taxes businesses, it reduces the funds available to pay for resources. Therefore, taxation would cause a reduction in the level of economic activity, with falling income, output and employment opportunities.

Injections into the circular flow model of income are those flows of money that increase aggregate income and the general level of economic activity. The three injections are investment, government spending and exports.

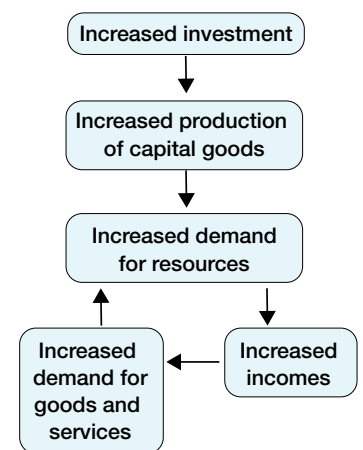


Figure 2.6 – The effects of increasing investment

For simplicity, the leakage of taxation is shown in figure 2.4 as coming only from individuals, even though the government does tax businesses as well. The reason for this is that the majority of tax revenue comes from individuals. In 2020–21, income tax levied on individuals represented about 40 per cent of total taxation revenue.

Government expenditure represents an injection into the circular flow for two reasons. Firstly, when the government spends revenue on collective goods and services, it provides income to government employees, and employees of the private businesses from which it purchases goods and services. Secondly, the government uses part of its tax revenue to make transfer payments such as pensions and unemployment benefits, which represents income to the recipients. Therefore, government expenditure would cause an increase in the level of economic activity, with rising income, output and employment opportunities.

This sector is also referred to as the **public sector**, and together with the private sector, it makes up the **domestic sector** in our economy.

International trade and financial flows

This sector covers all transactions that our economy has with the rest of the world. These transactions include **exports** (goods and services produced in Australia and sold overseas), **imports** (goods and services produced overseas and sold in Australia) and **international money flows** (financial transactions such as borrowing, lending and income payments between Australia and the rest of the world).

The international trade and financial flows sector shows flows into our economy as an injection, while any outward money flow is regarded as a leakage. In order to keep our circular flow diagram simple, we only include imports and exports in relation to the international sector, even though we do experience other international money flows such as borrowing, lending and income movements. Any other international money flows into Australia can be regarded as having the same effect as receipts for exports, and any other money flows out, having the same effect as payments for imports.

Imports are goods and services produced overseas but sold in Australia. Payments for imports are regarded as a leakage from the circular flow because money is withdrawn from the Australian economy and paid to businesses overseas. Similarly, any other money flows out of Australia, such as lending, or paying income overseas, would constitute leakages from our circular flow.

Like all leakages, imports reduce the size of the circular flow, causing a decrease in the level of economic activity, with falling income, output, and employment opportunities.

Exports are goods and services produced in Australia but sold to overseas customers. Payments for exports are regarded as an injection into the circular flow, because money is paid to Australian businesses by consumers in other countries. This inflow of income stimulates production and employment opportunities in Australia. Similarly, any other inflow of money from overseas, such as foreigners lending or paying income to Australians, would constitute an injection into our circular flow.

Like all injections, exports increase the size of the circular flow, causing an increase in the level of economic activity, with rising income, output and employment opportunities.

Equilibrium

Equilibrium occurs in the circular flow of income when the sum of all the leakages is equal to the sum of all the injections to an economy (see figure 2.7). There are three leakages: savings, taxation and imports, and three injections: investment, government spending and exports.

Disequilibrium occurs when there is an inequality between total leakages and total injections in an economy. The economy tends to move towards equilibrium, and as this process occurs, there will be a change in the level of income. The possible outcomes are summarised as follows:

- Whenever **total leakages** are greater than **total injections** there will be a downturn in the level of economic activity, with falling incomes, falling production and rising unemployment. In the circular flow model, as the level of economic activity falls, total leakages from the economy will also fall as consumers have less income to save, to spend on imports or to have collected as taxes. Therefore, leakages and injections will eventually be equal and the economy will again be restored to equilibrium, but at a lower level of income in the circular flow.
- Whenever **total injections** are greater than **total leakages** there will be an upturn in the level of economic activity, with rising incomes, rising production and rising employment. In the circular flow model, as the level of economic activity increases, total leakages from the economy will also increase, as consumers have more income to save, to spend on imports or to have collected as taxes. Therefore, leakages and injections will eventually be equal and the economy will again be restored to equilibrium, but at a higher level of income in the circular flow.

The circular flow of income will be in equilibrium when:

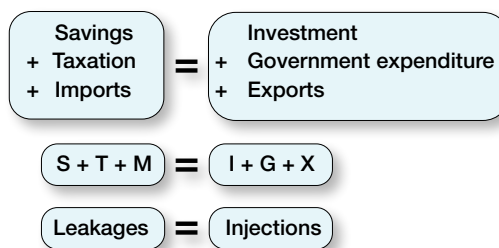


Figure 2.7 - Equilibrium

The government can have a significant influence on the circular flow in that it can change the levels of taxation and government revenue, and therefore manipulate the size of total leakages and injections and the overall level of economic activity. In so doing, it is possible for the government to offset any undesirable outcome from the inequality of savings and investment or international trade and financial flows. It can stimulate the economy by increasing injections in relation to leakages, or dampen the economy by increasing leakages in relation to injections.

review questions

- 1 Explain how a high level of savings in an economy might reduce economic activity.
- 2 Assume that the Australian economy has a low level of savings and a high level of investment. Outline TWO ways in which the economy might remain in equilibrium (without changing the levels of saving or investment).
- 3 A hypothetical economy continually experiences an excess of import spending over the sale of its exports. Describe the effect on the level of economic activity in this economy.
- 4 Explain how changes in the circular flow of income will lead to fluctuations in the business cycle.

Equilibrium occurs in the circular flow of income when the sum of all the leakages is equal to the sum of all the injections in an economy.

chapter summary

- 1 Business firms combine the **factors of production** to produce goods and services. **Goods** are tangible items for consumption, whereas **services** are intangible acts that are of benefit to consumers.
- 2 The four main factors of production are:
 - **natural resources** or land, which earn **rent**
 - **labour**, which earns **wages**
 - **capital**, which earns **interest**
 - **enterprise**, which earns **profit**.
- 3 Market economies distribute goods and services based on the individual's contribution to the production process: the larger the contribution, the greater amount of output received.
- 4 Modern market economies use money to **exchange** goods and services between people. Non-cash exchange can also take place, where a good or service is directly traded for another good or service. This transaction is called **bartering**.
- 5 Market economies are subject to recurring fluctuations in the level of economic activity, known as the **business cycle**, which affects income levels, employment opportunities and quality of life in an economy. Despite this cycle, the overall trend over time in an economy is generally towards increased output.
- 6 The **circular flow of income model** is a theoretical model that describes the operation of the economy and linkages between the main sectors in the economy.
- 7 The five sectors in the circular flow of income model are:
 - individuals
 - businesses
 - financial institutions
 - governments
 - international trade and financial flows.
- 8 The **private sector** consists of individuals, businesses and financial institutions. The government sector represents the **public sector** in our economy, and combined with the private sector, makes up the **domestic sector**.
- 9 **Leakages** represent all the outflows from the economy (savings, taxation and imports) and **injections** represent all the inflows into the economy (investment, government spending and exports). When the sum of all the leakages in our economy is equal to the sum of all the injections, we say that the economy is in **equilibrium**.
- 10 Whenever there is **disequilibrium** there will be a change in the level of economic activity. It will increase when injections exceed leakages and decrease when leakages exceed injections. Therefore, by altering its contribution to leakages and injections, the government has a large degree of influence over the level of economic activity.

chapter review

- 1 Explain the economic meaning of the following terms:
 - a) natural resources
 - b) labour
 - c) capital
 - d) enterprise.
- 2 Briefly describe how goods and services are distributed in a market economy.
- 3 Define the term *business cycle*, and explain the impact of changes in the business cycle on output, employment and quality of life in the economy.
- 4 Identify whether the following flows are leakages or injections:
 - a) imports
 - b) government expenditure
 - c) savings
 - d) taxation
 - e) exports
 - f) investment.
- 5 Explain what is meant by *financial institutions*. Outline their role and give THREE examples of such institutions.
- 6 Outline the relationship between savings and investment and discuss why they are important for the future growth prospects of the economy.
- 7 Based on the circular flow model, explain what the government would do if it believed that:
 - a) economic activity was too low
 - b) economic activity was too high.
- 8 Apart from receipts for exports, identify what other money flows into Australia would also be regarded as injections.
- 9 Identify what is meant by *equilibrium*.
- 10 Explain the effect on the circular flow of income when:
 - a) total leakages exceed total injections
 - b) total injections exceed total leakages.

Extended response

Using a diagram, outline the main features of the five-sector circular flow of income model of the Australian economy. Explain how leakages and injections influence the level of economic activity. Examine how the government can influence the level of economic activity.

3

How Economies Differ

- 3.1 The market economy
- 3.2 Australia: a market economy with a role for government
- 3.3 Comparing economies

3.1 The market economy

In a pure **market economy**, all major economic decisions are made by individuals and private firms motivated by self-interest. Under this system, most economic resources are owned by the private sector, and people are able to seek wealth without the government intervening or affecting their business activities. Other names used to describe this system are capitalist, free enterprise and laissez-faire.

The market economy is often contrasted to a **centrally planned** economy. Under a centrally planned system, government planners make economic decisions, individual choices have little role in influencing economic outcomes. Public ownership of factors of production allows the government to allocate resources as it sees fit. In the past, Russia, Eastern Europe and China followed the planned economy model, but it is no longer pursued by any major economy.

It is important to note that just as no fully planned economy exists, there is no example of a pure market economy in the world today. Probably the closest example is found in eighteenth- and early nineteenth-century England, when there was very little government intervention in economic activity. This is known as the laissez-faire approach (which can be translated as “let things be”). The main weakness of this system was that those who owned and controlled the means of production became extremely wealthy, while the majority were exploited and had few opportunities to get out of poverty. It was also vulnerable to a volatile cycle of boom and bust. These faults led to modifications to the laissez-faire system, with governments gradually playing a greater role in economic decision making.

Characteristics of a market economy

The market system

A **market** is a network of buyers and sellers seeking to exchange a particular product at a certain price. In a free-market economy, there are markets for all the goods and services produced, as well as for the resources that produce them.

In the markets for goods and services, known as **product markets**, the buyers are the consumers, and they constitute the demand for products. The sellers are the businesses, and their output decisions make up the supply of products. Price becomes very important

Product market is the interaction of demand for and supply of the outputs of production, that is, goods and services.