

5th Edition



Economics

for the **Real World**



Natalie Berndt
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 Nelson

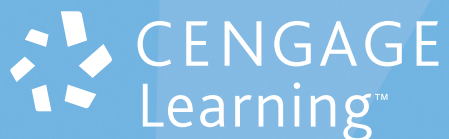
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Economics *for the* **Real World**



Natalie Berndt
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units
3+4

Economics for the Real World Units 3&4

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About this series

This new edition of *Economics for the Real World* has been fully updated for the 2025 QCAA Economics General Senior Syllabus implemented at Units 1 & 2 in 2015 and Units 3 & 4 in 2026. It comprehensively covers the syllabus and unit objectives using the inquiry approach valued in the syllabus, with integration of the underpinning factors throughout.

Focus questions and inquiries

Thought-provoking questions allow students to reflect on prior learning. The content examined in the chapter links to the QCAA syllabus subject matter.

Focus questions and inquiries

- Why does the value of the Australian dollar change? What effect does this have?
- Do the terms of trade affect the Australian economy? If so, how?
- What would happen to the Australian economy in the event of a currency crisis?
- How do governments respond to exchange rate movements?

This chapter will examine:

- what an exchange rate is
- what determines the demand and supply of a currency
- the types of exchange rates
- terms of trade
- the causes of appreciation and depreciation
- government policy response to exchange rate movements and changing trade relationships.

Concepts

Clear definitions of key terms throughout each chapter and in a complete glossary at the conclusion of the book.

2.3 What is an exchange rate?

CONCEPTS

Cost structure: the overall framework within a country that contributes to the final price of a commodity produced by that country

Currency appreciation: an increase in the value of a currency relative to other currencies under a floating exchange regime

Currency depreciation: a decrease in the value of a currency relative to other currencies under a floating exchange regime

Exchange rate: the value of the currency of a nation expressed in terms of the currency of another nation

Floating exchange regime: a system where a country's currency value is determined by supply and demand in the foreign exchange market, without direct government control

Foreign exchange (forex) market: a market where international currencies are bought and sold

Key idea

Bite-sized content to signal important ideas in context.

KEY IDEA

The government may seek to reduce the likelihood of market failure and achieve socially desirable outcomes for society by either regulating or deregulating a market.

Theory summaries

Summaries help students to focus on important theory and assist with notetaking.

FIGURE 2.4 Effects of changes in Australian exchange rates

Depreciation of A\$	Appreciation of A\$
• Australian exports become less expensive to overseas buyers. • There is growth in income and employment in export-oriented industries. • Australian imports become more expensive, and this could lead to a decline in imports and a growth of import substitution industries, or increased inflation. • There is an increased level of the external debt that is measured in overseas currencies, for example, US\$. • The RBA may increase cash	• Australian exports become more expensive to foreign buyers, and so income and employment in export industries may decline. • Australian imports become cheaper, and increased demand for imports may lead to an increase in the current account deficit. • There are decreased levels of external debt, where the debt is measured in overseas currencies. • The government may be more able to repay interest on external debt and so reduce the income

Check for understanding

Short response questions incorporating cognitive verbs provide students with the opportunity to check their understanding as they make their way through the chapter. Solutions are available as a teacher/student resource.

CHECK FOR UNDERSTANDING 2.2

- 1 Imagine that you have saved A\$2000 spending money for a holiday in the USA. What effect would a 10 per cent depreciation in the value of the Australian dollar have? Using the current exchange rate on a reliable website, show the actual gain or loss in US dollars.
- 2 Describe why an exchange rate is important for a nation.
- 3 Describe which economic institutions are involved in the exchange rate process.

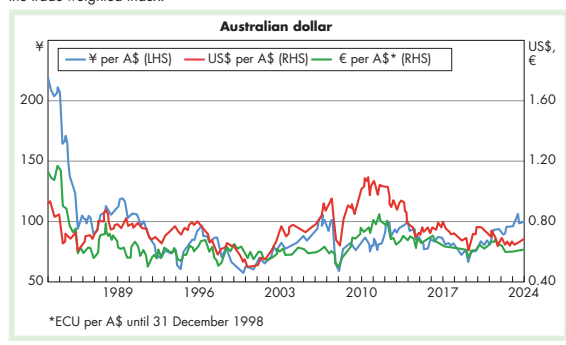
Economics in action

Media articles with associated questions assist students to relate the theory being learned to real-life scenarios.

ECONOMICS CHALLENGE

Exchange rates now vary on a daily (and sometimes hourly) basis. Figure 2.13 shows the value of the Australian dollar against the Japanese yen, the US dollar and the euro, and Figure 2.14 shows the movement of the Australian dollar. These graphs show the extent to which the Australian dollar moves in value over time.

Go to the current RBA Chart Pack to find the latest graphs for the exchange rates and the trade-weighted index.



ECONOMICS IN ACTION

- Using the website of one of the major banks of Australia, examine the current exchange rates for various currencies, and the range of currencies available for purchase in Australia. If you were to visit the following countries and had \$10 000 to spend in each, how much of each country's currency would you obtain?
 - Japan
 - France
 - USA
 - China
 - UK
 - New Zealand
- Using historical data available from the Australian Bureau of Statistics or the Reserve Bank of Australia (RBA) website, graph the movement of the Australian dollar for a one-month period, noting the changes and why they have occurred on the graph.

Economics challenge

In-depth inquiries of real-life scenarios encourage students to find current data.

A comprehensive revision guide at the end of each chapter

This is the ultimate student revision package, which includes:

- terminology that could be turned into flash cards for recall of key terms
- multiple-choice questions updated in this series to align with QCE practices
- short response questions utilising cognitive verbs
- inquiry topics which could be used as practice, or to develop internal assessment.

R 2.1 Terminology

Select the correct term from the list below that describes each statement.

A Currency appreciation	E Trade-weighted index	I Currency depreciation
B Exchange risk	F Spot rate	J Foreign exchange (forex) market
C Terms of trade index	G Futures market	
D Exchange rate	H Terms of trade	

- The market in which contracts are written for the purchase or sale of commodities on a date specified in the future
- A decrease in the value of a currency relative to other currencies under a floating exchange regime
- An index that measures the value of the Australian dollar against a basket of currencies, weighted according to the significance of each country's trade relationship with Australia
- The value of the currency of a nation expressed in terms of the currency of another nation
- The exchange rate quoted for a currency at a particular time
- A statistical concept that highlights the relationship between export prices and import prices
- An increase in the value of a currency relative to other currencies under a floating exchange regime

R 2.3 Short response questions

- Explain** the meaning of a floating exchange rate. What is the difference between a clean float and a managed or 'dirty' float?
- Explain** with the use of diagrams how a floating exchange rate is determined.
- Recall** factors that may cause the exchange rate to depreciate.
- Under a floating exchange rate, what can the Reserve Bank of Australia do to slow down or prevent a depreciation of the Australian dollar?
- What happens to the international competitiveness of Australian industry when the exchange rate rises? What impact might a rise in the exchange rate have, therefore, on the structure of the Australian economy?
- Describe** how the exchange rate is affected by changes in commodity prices.

R 2.2 Multiple-choice questions

Select the correct response to each of the following:

- If the Australian dollar were depreciated by 10 per cent, which one of the following would not be true?
 - A Imported Japanese motor vehicles would cost more in the Australian market.
 - B Imported Japanese motor vehicles would cost less in the Australian market.
 - C Japanese buyers would pay less for Australian wool.
 - D Australian consumers would be encouraged to buy locally manufactured goods.
- An improvement in Australia's terms of trade is said to occur when:
 - A the general level of export prices decreases relative to the general level of import prices.
 - B the general level of export prices increases relative to the general level of import prices.
 - C there is a decline in the terms of trade index.
 - D the terms of trade index remains constant.

R 2.4 Activities

- Imagine you are an importer of Japanese television sets. You have negotiated a price with your supplier for 100 television sets at ¥54 000 per set.
 - a If the current exchange rate is A\$1 = ¥250, how much will you pay the supplier for 100 television sets, expressed in Australian dollars?
 - b Suppose the Australian dollar appreciates by 10 per cent against the Japanese yen.
 - i What will the new exchange rate be?
 - ii How much, expressed in Australian dollars, will you now be required to pay for 100 television sets (rounded to the nearest dollar)?
- Given the following figures, **calculate** the terms of trade.
 - a Export price index 220
Import price index 200
 - b Export price index 174.5
Import price index 193.2

A complete guide to the external assessment in Chapter 12

This essential revision chapter provides a comprehensive overview of the QCAA Economics external assessment, equipping students with the knowledge and tools needed for success. It includes practical study advice, such as effective revision techniques and tips during the exam. Additionally, the chapter offers clear guidance on how to address cognitions in exam-style questions, helping students understand what is being asked and how to respond with precision and confidence.

QUESTION 1

Which of the following statements best describes the concept of inflation targeting and the significance of cash rate changes for economic activity?

A Inflation targeting aims to maintain a specific inflation rate, while raising the cash rate typically stimulates economic activity by encouraging borrowing and spending.

B Inflation targeting seeks to stabilise prices within a set range, while raising the cash rate usually dampens economic activity by making loans more expensive.

C Inflation targeting focuses solely on increasing economic growth, while cash rate adjustments have no significant impact on inflation levels.

D Inflation targeting allows for flexible monetary policy, while cash rate changes have an immediate effect on consumer confidence but little effect on inflation.

JUSTIFICATION FOR CORRECT ANSWER

	A	B	C	D
Answer:	☐	☒	☐	☐

The correct answer is B. Inflation targeting aims to keep inflation within a specific target range (2–3 per cent in Australia). When the cash rate is increased, borrowing costs rise. This typically discourages consumer spending and business investment, which can lead to a slowdown in economic activity. Conversely, lowering the cash rate encourages borrowing and spending, which can stimulate the economy.

Multiple-choice questions

Justifications for correct answers in multiple-choice questions.

Exam-style questions

How to break down and interpret exam-style questions.

QUESTION 8

Explain the role of automatic stabilisers in countering a slowdown in rates of economic growth. [4 marks]

Question breakdown

Key element	Explanation
Cognition or command	'Explain' means to make an idea, situation or process clear by describing it in detail and revealing relevant facts or ideas. This requires you to provide a clear and logical explanation that demonstrates your understanding of the concept or issue. Your response should go beyond simple description to provide reasons or show how and why something occurs.
Syllabus item	Unit 4 Topic 3 Subtopic A: analyse the role of automatic stabilisers and the role of discretionary spending in influencing aggregate demand and stabilising the economic cycle, and apply using diagrams.
Subject topic	There are two components of the subject matter that this question refers to: automatic stabilisers and the nature of the economic cycle.
Specific requirements	The question refers to the relationship between automatic stabilisers and the slowdown in economic growth. Ensure that the response details how this relationship operates to help slow down the economy.
Things to avoid	Avoid a simple description of automatic stabilisers and how they operate at any point in the economic cycle. Avoid a generic description of the economic cycle.

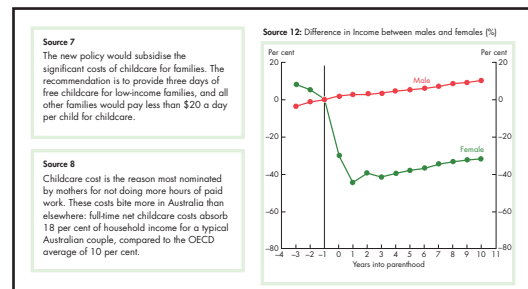
Sample response to Question 8	Key
Automatic stabilisers play a crucial role in mitigating the effects of a slowdown in economic growth, particularly in the context of the Australian economic cycle.	Explanation of automatic stabilisers
During periods of economic contraction, such as the downturn experienced during the COVID-19 pandemic, employment falls and incomes typically decline, leading to reduced tax revenues for the government. This decrease in tax revenue allows households to retain more disposable income, helping to sustain consumer spending and prevent a sharper decline in economic activity.	Explanation of a slowdown in economic growth
Additionally, during economic slowdowns, government spending on welfare programs – such as JobSeeker and other support measures – automatically increases as more individuals qualify for assistance. This rise in government expenditure provides a safety net for those affected by the downturn, further supporting aggregate demand.	
As a result of falling revenues and increasing expenditure, the federal budget will move towards a deficit. By cushioning the impact of reduced economic activity, automatic stabilisers help smooth consumption patterns and promote recovery, resulting in an increase in economic growth.	Demonstration of how automatic stabilisers work during a slowdown

Sample responses

Sample responses to exam-style questions, with explanations to help students understand what makes them effective.

Practice exam

A practice exam designed to mirror the format and requirements of the external assessment, providing an opportunity for students to test their knowledge and apply exam techniques.



Introduction

Assessment in Units 3 & 4

Assessment in Units 3 & 4 will be similar to the types of assessment conducted in Units 1 & 2. During the course of the year, you will have to complete four different assessment tasks, each of which is worth 25 per cent towards your overall result for Year 12. Three of the assessment instruments (1, 2 and 3) will be set and marked by your teachers in your school. The fourth will be an external examination that will be the same for all students in Economics across the state.

The tasks and requirements are stated in the Economics 2024 General Senior Syllabus developed by the Queensland Curriculum and Assessment Authority (QCAA), which can be located on the QCAA website.

All assessment instruments will be used to assess at least three of the five objectives stated in the syllabus.

The five objectives of the syllabus are:

- 1 comprehension of economic concepts, principles and models
- 2 selection of data and economic information from sources
- 3 analysis of economic issues
- 4 evaluation of economic outcomes
- 5 creation of responses that communicate economic meaning.

For a more in-depth explanation of what is required for each objective to be attained, refer to pages 4 and 5 of the syllabus.

Each assessment task is linked to a topic of study, one for each of the four topics, as shown in Figure 1.



Weblink
QCAA Economics
syllabus

Topic	Assessment type	Conditions	Weighting
1: The global economy (Unit 3)	Examination – Combination response	• 2 hours plus 15 minutes planning time	25%
2: International economic issues (Unit 3)	Investigation – Research report	• 4 weeks, including 10 hours of class time • Length: 1500–2000 words	25%
1: Macroeconomic objectives and theory (Unit 4)	Examination – Extended response to stimulus	• 2 hours plus 15 minutes planning time • Length: 800–1000 words	25%
2: Economic management (Unit 4)	External assessment: Examination – Combination response	• 2 hours plus 15 minutes planning time	25%

FIGURE 1 Summative assessment for Units 3 & 4

Instrument-specific marking guides

Each of the assessment tasks will be accompanied by an **instrument-specific marking guide (ISMG)**. The marking guide will indicate the standards a student's work must demonstrate to gain the marks. The highest mark a student can achieve is 25 per cent for each assessment instrument. Marks will be spread across the objectives of the syllabus that the summative assessment is measuring.

As an example, the first assessment instrument in Figure 1 will be based on the following break-up of tasks.

Criterion	Objectives	Marks
Part A – Comprehending	1	10
Part B – Analysing	3	8
Part C – Evaluating	4	7
Total		25

FIGURE 2 Summary of the ISMG

For each of the marks to be awarded for each criterion, there will then be a defined set of standards stated on the assessment instruments that shows what you need to achieve to be allocated the relevant mark. The following example shows this for the criterion ‘Comprehending’ in the first assessment instrument:

Objective 1: Comprehend economic concepts, principles and models of exchange rates, international trade patterns and trade theories

The student work has the following characteristics:	Marks
• <i>accurate and detailed identification</i> of the essential features of exchange rates, international trade patterns and trade theories • <i>perceptive application</i> of economic concepts, principles and models to exchange rates, international trade patterns and trade theories • <i>precise</i> use of economic terminology.	9–10
• <i>effective identification</i> of the essential features of exchange rates, international trade patterns and trade theories • <i>effective application</i> of economic concepts, principles and models to exchange rates, trade patterns and trade theories • <i>effective</i> use of economic terminology.	7–8
• <i>adequate identification</i> of the features of exchange rates, international trade patterns and trade theories • <i>adequate application</i> of economic concepts, principles and models to exchange rates, international trade patterns and trade theories • <i>adequate</i> use of economic terminology.	5–6
• <i>partial identification</i> of the features of exchange rates, international trade patterns and international trade theories • <i>partial application</i> of economic concepts, principles and/or models to exchange rates, international trade patterns and trade theories • <i>narrow</i> use of economic terminology.	3–4
• <i>identification</i> of aspects of exchange rates, international trade patterns and/or trade theories • <i>identification</i> of aspects of economic concepts, principles or models • <i>inconsistent or unclear</i> use of economic terminology.	1–2
• does not satisfy any of the descriptors above.	0

FIGURE 3 Example of an instrument-specific marking guide

Similar tables will be used for every objective in all assessment instruments for your summative assessment results. You may consult the QCAA Economics 2024 General Senior Syllabus for these.

Assessment instruments

We will now have a brief look at each of the assessment instruments that you will be required to complete in Year 12.

Examination – Combination response

The Examination – Combination response will be two hours in time plus 15 minutes planning time.

In this assessment instrument for ‘Unit 3, Topic 1: The global economy’, you will find a mixture of five multiple-choice questions, and between five and eight short response items that assess your ability to comprehend (Objective 1).

The short response questions may include questions that ask you to explain, measure, calculate, label and name diagrams and graphs. Sentences, paragraphs, diagrams and graphs may be required in response to such questions. You may encounter some stimulus material, but these are not essential. These will be between 50 and 100 words in length.

You will also be required to analyse (Objective 3) and evaluate (Objective 4). There will be one extended response to unseen stimulus of between 400 and 500 words. You will be presented with a minimum of four different stimulus materials, none of which should exceed 100 words.

Investigation – Research report

The research report will be based on ‘Unit 3, Topic 2: International economic issues’. In this task, all five objectives will be assessed – comprehension (Objective 1), selecting information (Objective 2), analysis (Objective 3), evaluation (Objective 4) and creating a response (Objective 5). You will be given four weeks to complete this task, including some class time, and your report will need to be between 1500 and 2000 words in length.

For the issue you are required to research, you should use a variety of primary and secondary sources such as government and other economics-related websites, media opinions, and commentaries from experts in the fields of economics and other related disciplines.

Examination – Extended response to stimulus

This examination relates to ‘Unit 4, Topic 1: Macroeconomic objectives and theory’. All five objectives will be assessed in this two-hour examination (plus 15 minutes planning time), which requires a response of between 800 and 1000 words.

You will be presented with primary and secondary sources, four to six of which you may have seen prior to the assessment and two to three of which are unseen. Your teacher will be looking for you to show your ability to demonstrate your skills of analysis and evaluation in constructing an analytical essay in response to the given task.

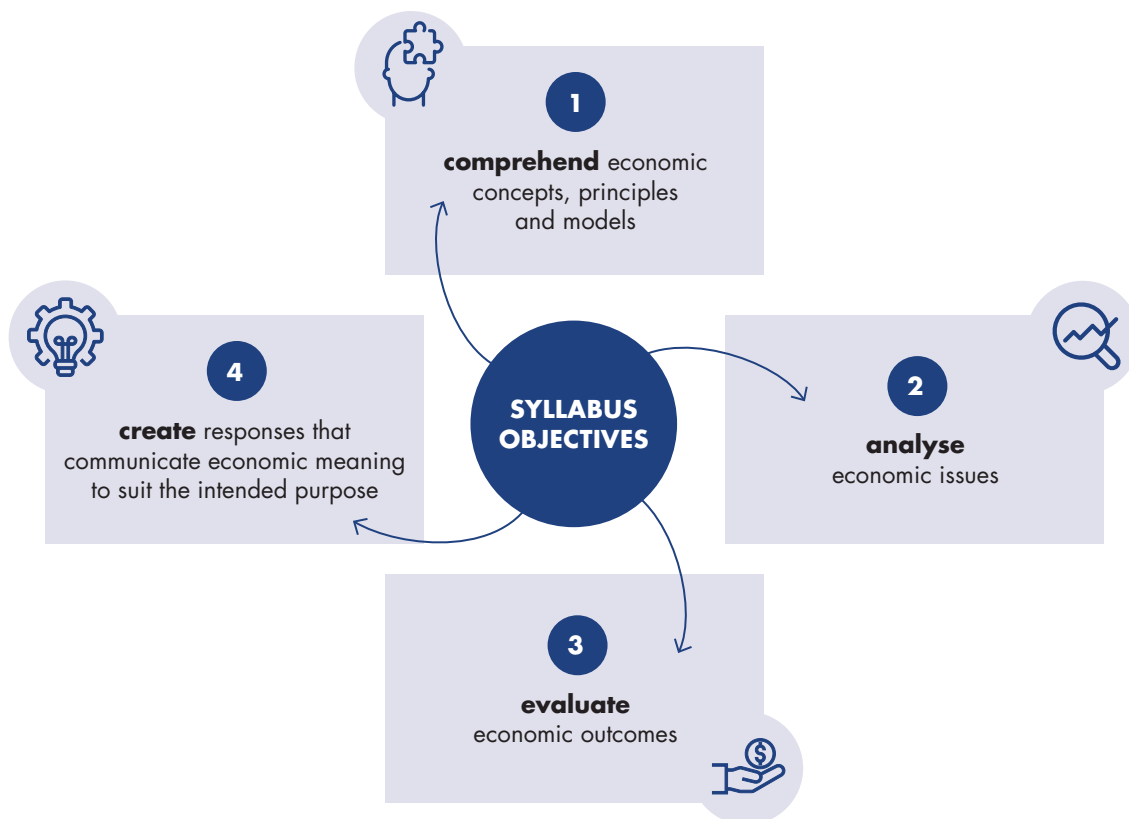
Examination – Combination response

This is the common external exam that all Economics students will be required to sit and is set by the QCAA. It will be on ‘Unit 4, Topic 2: Economic management’ and will be two hours in length, plus 15 minutes planning time.

Like the previous Examination – Combination response, it will contain multiple-choice questions, short response items and an extended response item. The examination will assess Objectives 1, 3 and 4 only.

Cognitions

In Economics, you will develop a deep understanding of the subject matter using a range of cognitive processes. These cognitions are defined in the syllabus objectives, which allow you to demonstrate skills in retrieval of knowledge, analysis and synthesis of information, evaluation and decision making based on criteria and creation of responses to communicate ideas to suit the intended purpose.



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UNIT 3

International economics



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1

International trade

This chapter examines reasons for international trade and Australia's place in the global economy.

Focus questions and inquiries

- How does trade occur in an open economy?
- Why do nations trade, and how do they benefit from trade?
- How important is trade to Australia's economy?
- Does trade impact on Australia's economic policy?
- Are trade theories still relevant in today's globalised economy?

This chapter will examine:

- imports, exports and the external sector in the circular flow of income model
- advantages and disadvantages of international trade and how trade can impact economic policy
- composition and direction of Australia's trade
- trade theories and their relevance in today's economies.

1.1 Australia in the global economy

Imagine for a moment a world in which each country operates as a closed economy; that is, each country relies totally on its own resources to satisfy the wants of its citizens. There is no problem in such a world if every country has an equal allocation of resources and an equal number of citizens.

But what happens when we introduce the element of inequality into our imaginary world? Assume that some countries have fewer people and more resources, and that other countries have vast supplies of some resources and no supply of others. It should be evident that, under these circumstances, if each nation continued to operate as a closed economy, living standards would differ greatly from nation to nation and opportunities for economic development would be severely curtailed.

KEY IDEA

Changes in the prosperity of a country's external sector can have significant effects on its domestic economy.

In today's global economy, no country is so well endowed with resources that it does not have to rely on other countries for the supply of some commodities. For instance, Australia has ample supplies of coal and iron ore, while Japan does not. As a result, Japan trades with Australia to obtain these minerals for its productive processes. Australia, on the other hand, does not produce rubber, cocoa or computer chips and must rely on other nations to provide these commodities. Interdependence of this kind is a characteristic of all nations in the world today. Therefore, we can say that all contemporary nations operate as open economies.

1.2 The open economy and the external sector

CONCEPTS



Circular flow of income model: a model of the economy, based on income flows from one sector of the economy to another in a circular motion, which explains levels of national income and output, and how changes in these occur

Exchange rate: the value of the currency of a nation expressed in terms of the currency of another nation

External (foreign) sector: that sector of the circular flow of income model that identifies economic influences external to the domestic economy

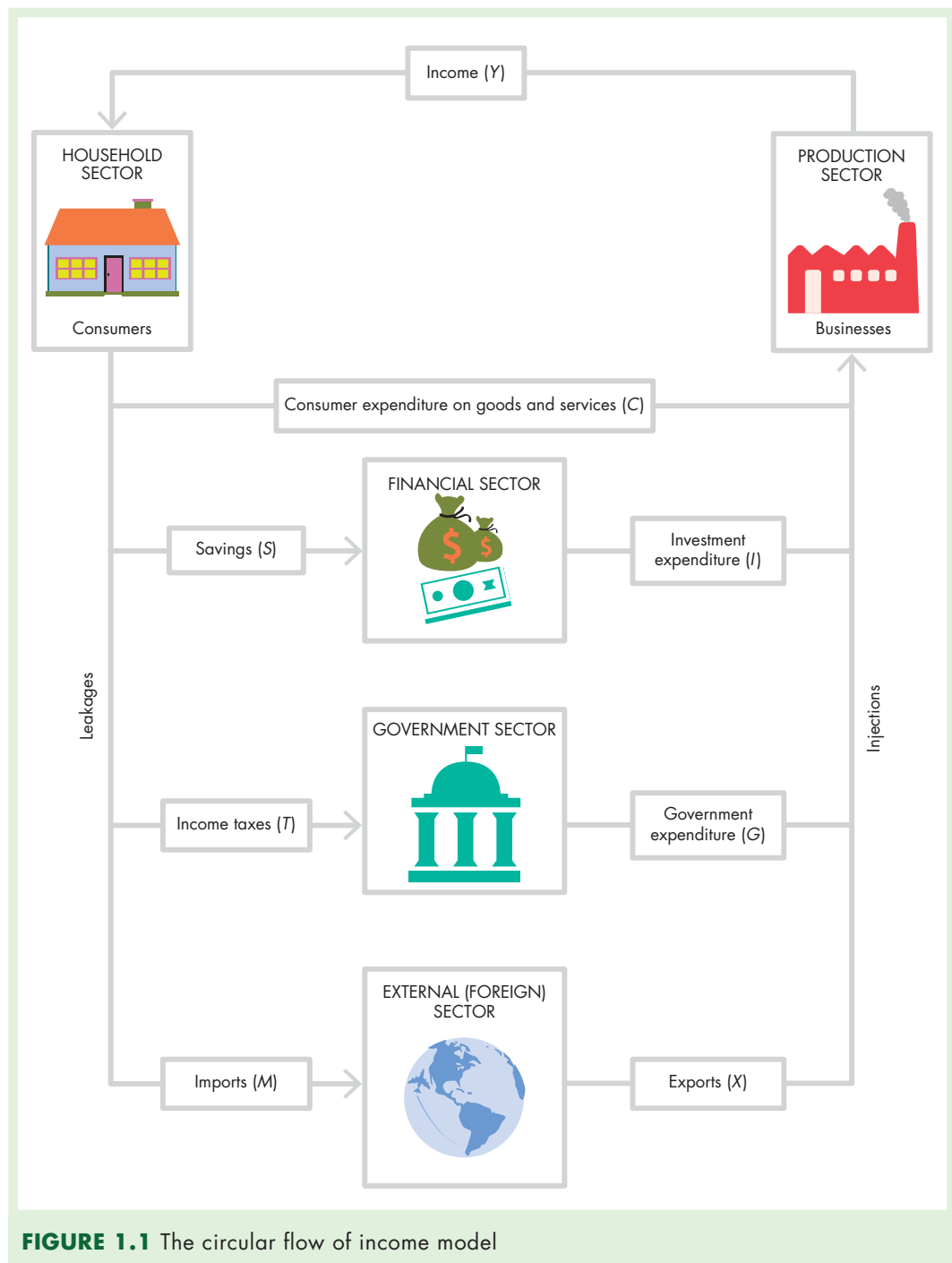
Internal balance: a state of the economy in which there is full employment and acceptable levels of inflation

Open economy: any nation that trades with other nations

One way of illustrating how our domestic economy is linked to the rest of the world is through a **circular flow of income model**, incorporating the **external (foreign) sector**.

A circular flow of income model for an **open economy** incorporates income flows generated by the external sector. These include leakages from the economy due to expenditure on imported commodities by residents, domestic businesses and governments. Injections into the circular flow are due to income received by residents for commodities exported to other nations.

Figure 1.1 shows how the external sector fits into a typical circular flow of income model.



You will recall that, if we let M stand for expenditure by residents on imports and X stand for income received by residents from exports, then the equation for total income in the economy can be expressed by the formula shown in Figure 1.2 on the following page.

$$Y = C + S + T + M$$

or

$$O = C + I + G + X$$

where:

- Y = total income
- C = consumption expenditure
- S = savings
- T = taxation
- M = expenditure on imports
- O = the value of the total output of production
- I = investment expenditure
- G = government expenditure
- X = expenditure on exports

FIGURE 1.2 Formula for total income in the economy

Equilibrium is said to be achieved in the economy according to the formula shown in Figure 1.3.

$$Ip + G + X = Sp + T + M$$

where:

- Ip = planned investment
- Sp = planned saving

FIGURE 1.3 Formula for equilibrium

From the above equation, it can be seen that it is possible to have inequality between Ip and Sp , between G and T , and also between X and M , and still have overall equilibrium in the economy as long as the various inequalities compensate for one another to give overall equality. If the level of imports is greater than exports ($M > X$), then the level of economic activity (O and Y) will contract.

1.2.1 What is international economics as a field of study?

International economics is an important area of economics. In studying this field we have a chance to integrate macro- and microeconomic concepts and models to create a framework within which we can apply theory to very real-world situations. Concerns such as increasing external debt, foreign ownership and international competition in industry are affected by pressures such as volatile **exchange rates**, decreasing commodity prices and tariffs. Economists need to make difficult decisions to achieve their objective of external viability while maintaining **internal balance**, such as low levels of inflation and unemployment.

CHECK FOR UNDERSTANDING 1.1

- 1 Recall** why import payments are a leakage from the circular flow of income model and export income is an injection into it.
- 2 Describe** why Australia is called a small, open economy.
- 3 Explain** how trade assists economic growth.

ECONOMICS DATA



Use the Internet to find the current rates of growth of Australia's imports and exports. Note that the Australian Bureau of Statistics uses the terms 'Goods debits' for imports and 'Goods credits' for exports.

- 1 In the past five years, has there been a consistent trend in the growth of exports and imports, or are there fluctuations?
- 2 Suggest reasons why the growth rates are changing.

1.3 The international economic problem

CONCEPTS



Capital: the factor of production comprising the stock of human-made resources used to create further goods and services

Economic problem: the problem of deciding or choosing how to satisfy unlimited wants with limited resources

Factor endowment: the supply of the factors of production (land, labour, capital and enterprise) that exists in a country

Free-enterprise economy: an economic system where businesses and individuals are free to produce, sell and compete with little government intervention; prices and resources are mostly controlled by supply and demand in the market

Gross domestic product (GDP): the total value of final goods and services produced within an economy in a specified period of time

Human capital: the knowledge, experience and skills of individuals, in which nations must invest if they are to advance

Profit motive: the seeking of profit – the basic stimulus for economic activity in a free-enterprise economy

Relative scarcity: limited supply of a resource

Standard of living: a measure of lifestyle standards based on material and quantitative indicators, such as possessions, income, and education, health and housing standards

It should now be evident that there is a similarity between the **economic problem** confronting an individual and the economic problem that all nations face. **Relative scarcity** is the common element at both levels. Individuals allocate their limited income to maximise the satisfaction of unlimited wants. In the same way, nations distribute their scarce resources according to national objectives. Each nation seeks to supplement its own resources through international trade to compensate for the significant differences in **factor endowment** among nations of the world.

1.3.1 Unequal distribution of natural resources

Nations are not endowed with the same quantity and quality of natural resources. Geographical features such as climate and topography largely determine a nation's agricultural and pastoral capabilities. For example, a country with high temperatures, low rainfall and a denuded landscape is limited in its capacity to produce agricultural products and it is unlikely that such a country could support a thriving pastoral industry. Australia is fortunate in that, even though only a very small proportion of our continent is considered arable, it has been sufficient to meet most of the needs of our population.

The unequal distribution of mineral resources throughout the world gives rise to a vast volume of trade. Modern production processes consume enormous quantities of energy, leading to a continuous demand for minerals such as coal and oil. The oil crises in the early 1970s and in 2003–04 highlighted the extent of international economic dependence upon oil-producing nations. In one respect, these crises were a welcome development because they brought with them the realisation that oil supply is limited and that nations need to closely examine their energy requirements. In recent years, we have seen the controversial development of uranium as an alternative energy source to replace the rapidly diminishing supplies of conventional fuels. Again, the known supply of this mineral is limited to a few countries of the world.



Sergey Malov/Shutterstock.com

FIGURE 1.4 A modern mine

It is important to remember that a nation's supply of natural resources can change with technological development. Scientific advancement in the twentieth century has led to the inclusion of minerals such as uranium and bauxite in our endowment of natural resources. It is not unreasonable to suggest that, in years to come, much of Australia's arid land surface may become arable through the application of improved technology.

1.3.2 Unequal distribution of capital and technology

Less-developed economies typically produce primary products and rely upon trade with more advanced economies to meet their needs for manufactured goods. In a sense, the capital accumulation process is self-perpetuating. Advanced economies, with established capital infrastructures, have been able both to maintain high rates of economic growth and to achieve external viability. However, the less-developed economies are continually confronted with trade deficits and have been unable to accumulate sufficient capital to establish an efficient infrastructure upon which economic growth can be based. This has led to what is often referred to as the widening gap between the **gross domestic product (GDP)** of advanced economies and less-developed economies of the world.

1.3.3 Unequal distribution of human skills

In recent decades, economists have focused on the concept of **human capital** as an essential component of economic development. The term merely highlights the fact that a nation's expenditure on education and health facilities can be interpreted as investment in human capital. Advanced economies have populations in which the proportion of skilled labour is higher than that found in less-developed economies. Consequently, this has enabled advanced economies to diversify production and to initiate and absorb technological change. The result has been that many nations of the world rely on others for the provision of the goods and services that they do not have the skills and expertise to produce themselves.



Tom Werner/Stone/Getty Images

FIGURE 1.5 Advanced economies have populations with a high proportion of skilled labour, enabling them to diversify production and to initiate and absorb technological change.

1.3.4 Desire for an improved standard of living

As mentioned at the start of this chapter, if the Australian economy chose to operate as a closed economy, our **standard of living** would be severely reduced. Because endowment of natural resources, **capital**, technology and human skills differ from country to country, nations seek to trade with others in order to maximise their standard of living. International trade allows for a sharing of the world's resources, and enables nations to enjoy goods and services otherwise unavailable to them.

1.3.5 Profit motive

In the case of **free-enterprise economies**, the basic stimulus for economic activity is the **profit motive**. In Australia, for instance, even though we frequently speak collectively of our trade with other nations, we must remember that this trade is undertaken by individuals and firms, or by organisations acting on behalf of individuals and firms. We have entrepreneurs who are exporters and others who are importers. All seek to maximise their profits. Although the government intervenes in the national interest, free enterprise prevails. This partly explains why we import some commodities that are already produced within our domestic economy. If entrepreneurs think that they can successfully market imported products against locally produced commodities, then they are generally free to do so.

CHECK FOR UNDERSTANDING 1.2

- 1 **Explain** the similarities between the economic problem of a household and the international economic problem.
- 2 **Recall** the main motivation for international trade.
- 3 **Explain** why some countries are more dependent on trade than others.
- 4 **Construct** a t-table to show the major differences between domestic and international trade.

ECONOMICS IN ACTION



Create an economic profile for Australia and one other country using online databases such as the World Bank's World Development Indicators (WDI), the United Nations Commodity Trade Statistics Database, the International Labour Organization's ILOSTAT, and the United Nations Human Development Index (HDI).

- 1 Collect statistics to **describe** the distribution of natural resources, human skills, standard of living, and capital and technology. This could be undertaken in groups where each group is responsible for a statistic.
- 2 Collate the data into tables and graphs in a collaborative space, so that you can **analyse** the full dataset.
- 3 **Analyse** this information in groups or as a class. At the conclusion make a judgement as to which country has the best factor endowment, and justify this referring to the evaluative criteria used.

1.3.6 The complexity of international trade

CONCEPTS



Capital-intensive method of production:

a production process that predominantly uses capital rather than labour

Currency: the basic monetary unit of a country

Economies of scale: cost efficiencies that are derived by producing a large volume of standardised products

Inflation: the sustained increase in the general level of prices over a period of time (usually one year), measured by an increase in the consumer price index

Inflation rate: the percentage change in prices over time, usually one year

Intra-company trade: trade between affiliates of the one organisation; for example, between a home-based subsidiary and a foreign-based subsidiary of the same company

Labour-intensive method of production: a production process that predominantly uses labour rather than capital

Multinational corporation (MNC): an enterprise operating in several countries but managed from one (home) country; generally, any company or group that derives a quarter of its revenue from operations outside of its home country is considered a multinational corporation

Continued

Continued

Productivity: output per unit of input per unit of time

Purchasing power: the ability to buy goods and services with a given amount of money; it depends on income and inflation – when prices rise, purchasing power falls, meaning money buys less

Subsidiary: a company that is more than 50 per cent owned by another company,

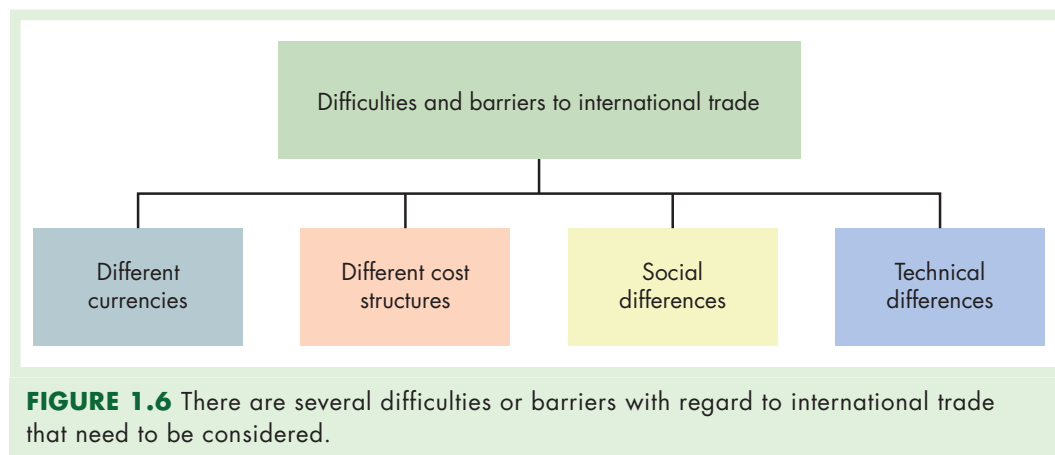
which is called the parent or holding company

Tariff: a tax imposed on imported commodities

Transfer price: the price charged for goods by one subsidiary of a multinational corporation to another subsidiary of the same company in another country

There are numerous factors that make the process of international trade much more complex. When Queensland producers wish to sell goods in New South Wales or Western Australia, they encounter fewer difficulties than if they wish to market the same goods in Japan or India. Some obvious difficulties arise because of the many differences that exist between nations. When products are traded between regions in the same country, they move within the same social and institutional system. On the other hand, when products are traded between nations, they must pass from one system into another. Nations differ in a number of ways.

How nations differ



Different currencies

A **currency** is the basic monetary unit that is used within a country. In most countries, only the national currency is considered to be legal tender; for example, you can only use Australian dollars in Australia. When a Queensland manufacturer sells goods to a New South Wales retailer, there is no issue because both parties deal in the basic Australian unit of currency. On the other hand, when the Queensland manufacturer sells to a Japanese retailer, there are two currencies involved: Australian dollars and Japanese yen. The Japanese retailer pays for imported goods in yen and the Australian producer receives payment in dollars. For this to happen, it is necessary for the transaction to pass through the international banking system that converts the payment from one currency into another. The process is further complicated because one Australian dollar has a different **purchasing power** from one Japanese yen. It is therefore necessary to

maintain rates of exchange that express the value of one currency in terms of other currencies. In recent years, the procedure for determining appropriate rates of exchange has come under a great deal of pressure because of differing **inflation rates** in countries around the world. **Inflation** results in the decline of the purchasing power of a unit of currency.

Different cost structures

Methods of production tend to differ greatly around the world. The labour–capital mix that producers choose to use depends very much upon the availability and relative costs of these resources within a country. In Australia, over recent decades we have witnessed a shift from **labour-intensive methods of production** to **capital-intensive methods of production**. This shift has come partly from the greater availability of capital and partly from the fact that the cost of employing labour has steadily increased. Currently, the shortage of skilled labour and the ageing of the population are other issues for Australia and its government to consider.

Generally speaking, the introduction of capital-intensive methods of production increases **productivity** and therefore reduces the unit cost of goods. In countries where labour is abundant and capital is relatively scarce, production tends to be labour-intensive. Because labour productivity is low in such countries, wages are also low by our standards. It is this imbalance in wages that often leads to conflict in international trade. For instance, Australian clothing manufacturers that use labour-intensive methods of production must compete with Asian manufacturers that use similar methods, but have access



Humphrey/Shutterstock.com

FIGURE 1.7 Labour-intensive methods of production, as shown in this clothing factory in China, require a pool of cheap labour.

to cheaper labour. This often results in Australian companies moving their production offshore, as in the case of Bonds Clothing and Billabong. Banks, communication companies and some other businesses have moved their call centres offshore for the same reason.

A further factor that contributes to differing cost structures is the size of the domestic market. Domestic markets in Australia are relatively small and local producers are often unable to attain the **economies of scale** that are available to their foreign competitors.

The disadvantage faced by our local producers is obvious. A prime example of an industry that suffered this market disadvantage is the Australian motor vehicle manufacturing industry. This industry was often criticised for the inefficiency resulting from its fragmentation. Our vehicle assembly plants were tiny when compared with those that existed in countries such as Japan, the USA, South Africa and South Korea, and it was argued that there were too many producers for the size of the domestic market. The result was that Australian consumers had to pay a relatively high price for all motor vehicles, whether they were imported or locally produced. The main reasons for this were the inability of domestic firms to benefit from economies of scale, and the high level of **tariffs** on imported vehicles. In 2017, the last of the manufacturing plants in Australia was closed and Australia now has no motor vehicle manufacturing at all.

Transport cost is another factor that leads to differing cost structures between nations. It arises from – and varies according to – the distances over which goods must be carried, either to be processed or marketed. Australia suffers in this regard because of its vast land mass and relative isolation from major world markets. Australia's productive activities are scattered over an area that is approximately 25 times the size of the UK and almost as large as the USA, excluding Alaska. The distance from Australia to major Asian seaports and the US west coast

is about 12 000 kilometres, and the major European markets lie more than 17 000 kilometres away. The result is clear: Australian exports and imports incur higher costs than they would if foreign markets were closer.

Social differences

International trade frequently encounters barriers such as different languages, customs, habits and tastes, which create difficulties that are not normally encountered within a nation.

Religion has often been cited by economists as a social factor that can have significant repercussions in terms of the economic development of some countries. For instance, the prevalence of Hinduism as a religion in India and parts of South-east Asia has a widespread effect upon the customs and habits of its followers. It denies Australia access to what might otherwise be a substantial market for beef. The Hindu faith promotes vegetarianism and 'ahimsa' –respect for life. The cow is venerated and protected by devotees of Hinduism.

Technical differences

A constant source of frustration for exporters is the variety of technical specifications that exists from country to country. Typical examples are the different voltage systems for electrical appliances, and the left-hand-drive and right-hand-drive specifications for motor vehicles. A producer wishing to penetrate a foreign market may have to alter production processes if the requirements of the potential market differ from those in the established domestic market. Such alterations usually lead to higher production costs.

If there are higher risks associated with the potential market, foreign producers may decide that penetration is uneconomical. Such markets are, therefore, often left to domestic producers.

National policies

KEY IDEA

Decisions made by governments as well as by individual enterprises have a major influence on the pattern of world trade.

Even though international trade theory (see Section 1.7) clearly demonstrates the many advantages to be gained from free trade between nations, the real world is far removed from the theoretical world described in economists' models. International cooperation may be desirable, but the prime function of democratic governments is to put the welfare of their own citizens first.

In a sense, all governments are profit-maximisers in a competitive marketplace, attempting to secure an advantage over their competitors. For this reason, governments continually interfere with the process of international trade, altering their policies to accommodate changing conditions in their domestic economies. For instance, Australia in recent years actively pursued free trade arrangements with various nations, while Japan and the European Union are still in favour of protecting their domestic industries, particularly agriculture, from international competition.

The problems of impoverished countries are often accentuated by social structures that lead to an inequitable distribution of national income. It is not uncommon to find in these countries that a significant proportion of national income accrues to a minority ruling class that determines national policies. Consequently, household disposable incomes are often far lower than is suggested by per capita figures. This means that, even though there are many countries with populations exceeding Australia's, their consumer markets may be smaller than ours.

Multinational corporations

It is estimated that **multinational corporations** account for one-third of world output and GDP, and two-thirds of international trade. These kinds of figures indicate the enormous influence that multinationals have on international trade.

Intra-company trade is a common feature of multinationals. **Subsidiary** companies of one corporation scattered throughout the world will often trade with each other at transfer prices, which can shut out competitors and distort global trade patterns. **Transfer pricing** is the practice of setting artificially high prices when one subsidiary company buys from another subsidiary company, thereby reducing apparent profits and avoiding taxation – shifting profits from high-taxing countries such as Australia and paying taxes in the lowest-taxing jurisdictions.

Multinational corporations tend to be highly mobile and show no hesitation in shifting their productive activities from nation to nation.

CHECK FOR UNDERSTANDING 1.3

- 1 **Describe** conditions in Australia that may create difficulties for domestic firms seeking to sell their products in overseas markets.
- 2 **Recall** five multinational companies that operate in Australia. List some of their products.
- 3 **Describe** how an Australian multinational company operating in China would be of benefit to China.

ECONOMICS IN ACTION



You are a junior trade official and have been given the task of investigating and reporting on the ease with which Australian companies might be able to enter into trading agreements with countries in the African or Latin American regions.

- 1 Choose one country in one of the above regions.
- 2 Investigate conditions that Australian firms may experience when trading in the chosen country. Follow the link to Austrade and use the information available on this website as the basis for your inquiry.
- 3 Design a one-page summary using Canva that could be used by firms interested in seeking trade opportunities in your chosen country.
- 4 Include a list of websites that could be used for further information.



Weblink
Austrade

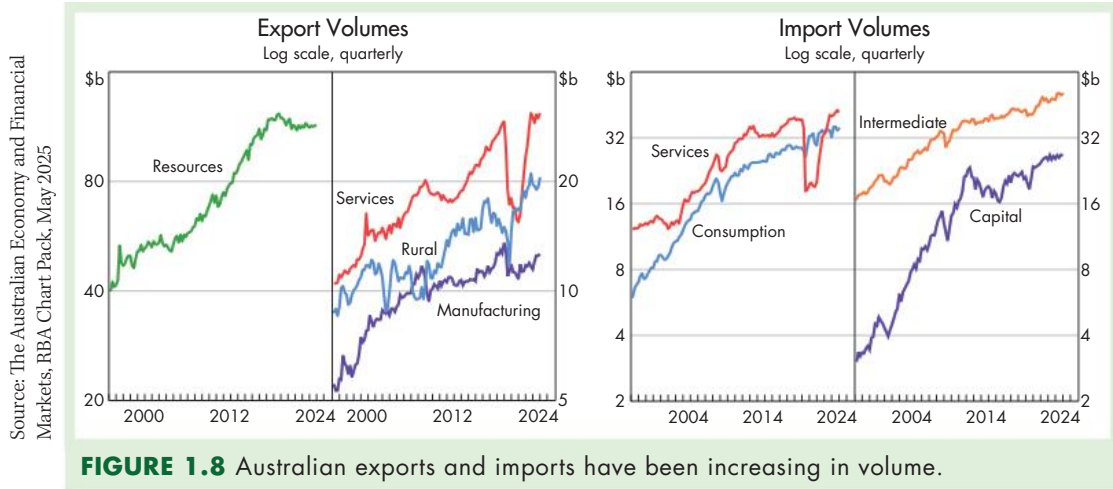
1.4 Advantages and disadvantages of international trade

Many people suspect that international trade operates as a zero-sum game; that is, they think of it like a game of football – a competition with rules that has one winner and one loser. Specifically, people sometimes believe that if our trading partners are gaining as a result of international trade, Australia must be losing. In this view, exported goods represent a gain for the economy and imported goods represent a loss for the economy.

This idea is nothing new; it dominated economic and political thought from the sixteenth to the eighteenth centuries. Known then as ‘mercantilism’, it led to government policies that encouraged exports and discouraged imports. Adam Smith’s writing in *The Wealth of Nations* (1776) showed that the zero-sum game myth was not valid.

1.4.1 The costs and benefits of trade

In spite of people's apprehensions about trade, both imports and exports are at an all-time high in Australia (see Figure 1.8). For international trade to occur, it must make both nations better off. This is a positive-sum game, not a zero-sum game, because both sides gain.



ECONOMICS IN ACTION



- 1 Locate the most recent graph or statistics showing Australian exports, imports and trade balance. Use these figures to **analyse** the most recent trends for the Australian economy.
- 2 Use the statistics you have located to **explain** the following statement from Adam Smith in *The Wealth of Nations*: 'If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it off them with some part of the produce of our own industry.'

The winners

With international trade, the winners include consumers (buyers) and domestic companies that export goods and services (sellers). First, let's consider the benefits to buyers. Consumers see the benefits of trade in terms of variety and price. Trade results in consumers having access to a wider variety of goods. Think about some of the imported goods and brands that you buy on a regular basis. If imports were not available, you would have a more limited range of goods to purchase. Sometimes, the price of the imported good is less than that of the Australian-produced good, thus saving consumers money. This occurs because producers in foreign



FIGURE 1.9 International trade results in consumers having access to a wider variety of goods.

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companies can produce goods – including motor vehicles, textiles and clothing – at a lower cost than Australian producers. These lower costs often result in lower prices, which benefit consumers by increasing their purchasing power. The competition provided by imported goods and services provides incentives for Australian producers to improve the quality of their goods and the efficiency of their production methods while keeping prices low.

Domestic sellers also benefit from trade. Domestic companies that export have a market that is far larger than the domestic market, and producing for a larger market allows them the opportunity to grow and produce on a larger scale. These economies of scale permit such companies to benefit from efficiencies and produce goods at a lower average cost. The lower production costs help the companies be more competitive, and can result in lower prices for consumers.



IRINA_PRO/Shutterstock.com

FIGURE 1.10 International trade results in domestic companies exporting to a larger market.

Benefits of trade extend beyond the immediate buyers and sellers. Trade can result in economic growth and an improved standard of living. Trade gives countries access to physical capital (technology, tools and equipment) that is not produced domestically. This physical capital often results in increased productivity, which drives economic growth and an improved standard of living. Access to global markets increases export opportunities for developing nations. Examples include China, which has become a manufacturing powerhouse, and India, which is a leader in exporting services. Both countries have experienced development and growth that would not have happened without access to global markets. Many economists believe that countries can escape poverty through increased trade. Recent research suggests the income gap between rich and poor countries could be reduced by 50 per cent if trade barriers were removed.

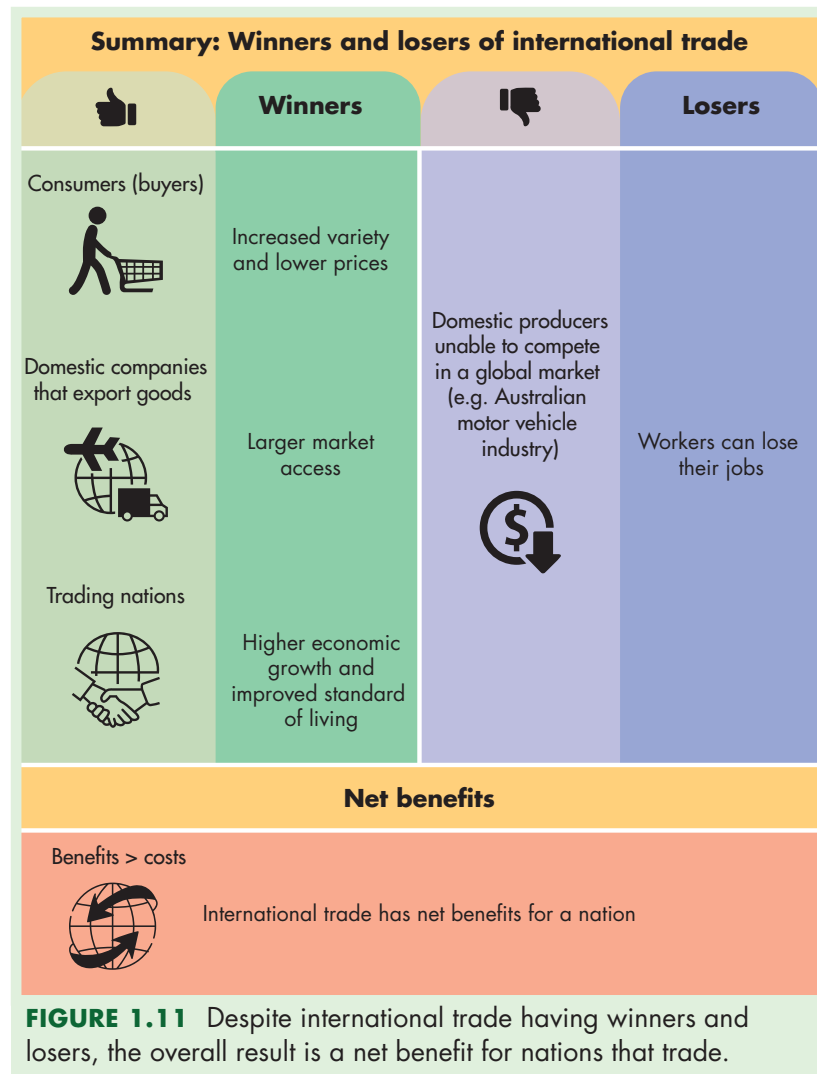
The losers

Some third parties are worse off because of international trade. The most obvious third-party losers are companies selling products that cannot compete in a global market. An example is the Australian motor vehicle manufacturing industry, which was forced to shut down because imported motor vehicles were more competitive (see 1.2.6). When businesses shut down, workers lose their jobs. This is painful for workers, who must retrain and develop new skills to find new employment.

Net benefits

Economists argue that international trade has net benefits for a nation; in other words, the benefits outweigh the costs. This does not always seem obvious to many people because the costs are often more visible than the benefits; for example, it is relatively easy to identify businesses or industries that have shut down because of trade. Similarly, it is not difficult

to identify people who have lost jobs in affected industries. It is more difficult, however, for consumers to identify how much cheaper their food, clothing, electrical goods and cars are because of trade. The lower prices paid by consumers and businesses mean they have more money to spend on other items. As a result, there are businesses that have experienced more growth because of that spending, and this would not have happened without trade.



ECONOMICS IN ACTION



In 2020, Australia imposed anti-dumping duties on certain Chinese steel products to protect its domestic industry. While this supported local producers in the short term, it raised costs for downstream industries that rely on imported steel.

- 1 Identify** a recent trade policy decision by the Australian Government.
- 2 Evaluate** the decision using at least two economic criteria.
- 3 Discuss** whether the benefits outweighed the costs.

CHECK FOR UNDERSTANDING 1.4

- 1 **Explain** the objectives of trade under mercantilism.
- 2 Define what is meant by a 'zero-sum game'.
- 3 **Explain** who gains from international trade.
- 4 **Recall** the 'losers' from international trade and give an example of each.
- 5 **Explain** why many economists consider that international trade is of net benefit to a nation.

1.5 Why international trade is important to Australia

CONCEPTS



Balance of payments: the summary of a nation's payments to, and receipts from, the rest of the world over a year

External stability: the situation in which there are no unwanted movements of foreign reserves in the balance of payments

Foreign reserves: assets held by a country's central bank in foreign currencies,

including cash, government bonds and gold; they are used to stabilise the national currency, manage inflation and support international trade

Liquidity: how easily an asset can be converted into cash without losing value; cash is the most liquid asset

KEY IDEA

International trade is important to Australia for many reasons. Without international trade, Australia's economic growth would be much slower, and hence our living standards would be much lower.

1.5.1 Trade fluctuations

Trade fluctuations can cause instability in the Australian economy. Fluctuations in demand for Australia's primary exports – such as beef, wool, coal, iron ore and other minerals – have repercussions. Australian producers need to expand or decrease production to match world demand for their product, and while coal and other minerals can be stockpiled, it is difficult to stockpile many agricultural products. Without the demand for our primary products internationally, domestic production would fall, and living standards would decline. Fluctuations in price for Australia's primary exports can also have an impact on our economy and affect the demand for these products. Australian governments (both state and federal) earn royalties from the sale of our products. An increase in demand and price increases the amount of money governments receive, while a decline in demand or price results in a decline in revenue for governments.

As the value of exports as a percentage of GDP is high for Australia by world standards, any change in world demand and prices will affect the domestic economy. In addition, Australia's level of imports is high by world standards, also affecting the domestic economy and government economic policy.

Trade has been key to economic prosperity in Australia

International trade continues to be a catalyst for the high level of foreign investment in Australian enterprises. While the merit of such investment can be debated, it has meant a higher economic growth rate than would otherwise have been the case.

The increasing interdependence of the world's economies means that trade is very important to individual countries. International tourism, the numbers of overseas students studying in Australia, the growing importance of multinational corporations, economic integration, world conflicts and world economic conditions (such as the Global Financial Crisis in 2008 and the COVID-19 pandemic from 2020) all mean that Australia is more susceptible than ever to the impact of changes to world trade and world economic events.

Australia is particularly interested in a stable world monetary system, because if **liquidity** does not expand as trade expands, then the industrialised countries will curtail demand for industrialised goods and this means curtailing imports of raw materials.

There are many other reasons why trade is vital to Australia. For example, employment is generated by increased trade. Further, as Australia is not self-sufficient, it is necessary to rely on other countries for imports to provide goods that we are not able to produce domestically. Our standard of living is affected by world trade.

Australia's **external stability** is vital to our continued wealth. External stability is the situation in which there are no unwanted movements of **foreign reserves**. This is indicated by the **balance of payments** (see Chapter 3), which summarises a nation's dealings with the rest of the world over a period of time, usually a year. It records all the payments made to other nations, as well as all the payments received from other nations over the year. Major payments and receipts recorded in the current account include exports and imports of merchandise, services and income from foreign investments. If Australia is paying out more foreign currency for these current account items than it receives from other nations, the current account is in deficit. If receipts exceed payments, the current account is in surplus.

The inflows and outflows of foreign currency that represent foreign investment, foreign loans and adjustments of reserve currency holdings are major items of the capital financial account.

1.6 Australia's trade

CONCEPTS



Exports: goods that a nation sells to foreign nations; in Australia, we export significant quantities of natural resources

quantities of petrol, cars and machinery

Imports: goods that enter a nation from overseas; in Australia, we import significant

Intermediate goods: products used as inputs in the production of final goods and services; for example, steel for cars

This section is concerned with the composition and direction of Australia's **imports** and **exports**. Imports are goods that enter Australia from overseas, while exports are goods that Australia sells to foreign nations.

1.6.1 Commodities traded

Imports

Australia's imports reflect the structural composition of the Australian economy, and are shown in Figure 1.12.

FIGURE 1.12 Major Australian merchandise imports, 2024 (A\$m)

Personal travel (excl. education-related)	63 002
Refined petroleum	51 814
Passenger motor vehicles	37 226
Professional services	21 817
Goods vehicles	18 923

Source: DFAT 2025

Australia is reliant on overseas sources for many of the manufactured items that we use in our day-to-day living, as shown in Figure 1.13; consumption goods and services and **intermediate goods** make up the bulk of Australia's imports. Intermediate goods – also known as producer goods or semi-finished products – are goods (such as partly finished goods) used as inputs in the production of other goods.

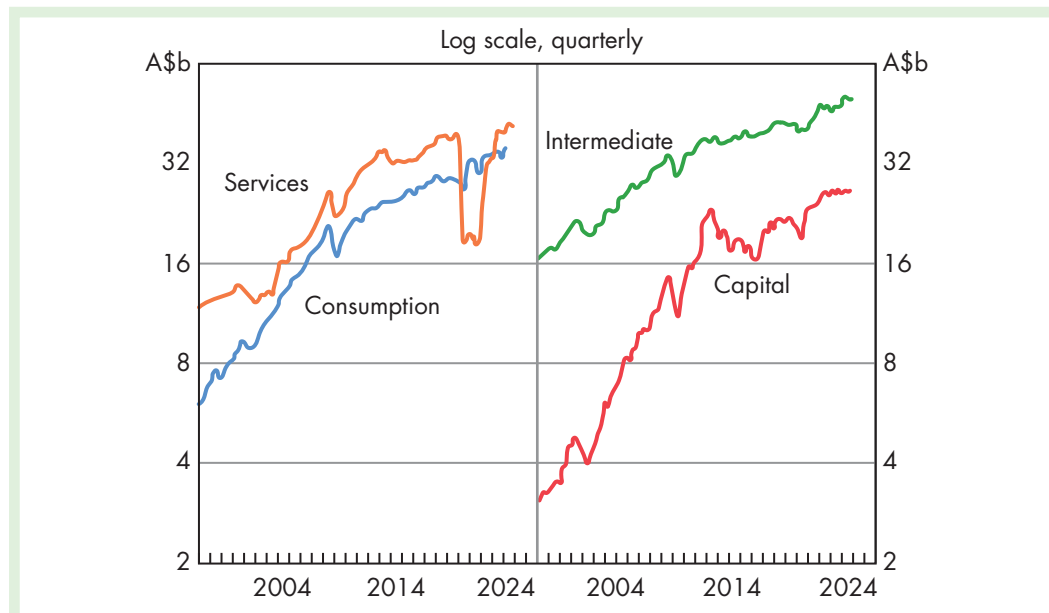


FIGURE 1.13 Australia's import volumes

Sources: The Australian Economy and Financial Markets, RBA Chart Pack, May 2025

Exports

Historically, Australia was known to have ‘ridden on the sheep’s back’ since European colonisation. This phrase was commonly used to describe Australia’s reliance on wool, which was our major export for many years. As Figure 1.14 shows, this is no longer the case.

FIGURE 1.14 Major Australian merchandise exports, 2024 (A\$m)

Iron ore and concentrates	137 939
Coal	91 358
Natural gas	68 707
Education-related travel services	51 032
Gold	32 937

Source: DFAT 2025

Figure 1.14 shows that Australia’s main exports come from the resources sector, which outstrips the rural, services and manufacturing sectors combined, as shown in Figure 1.15. According to the Department of Foreign Affairs and Trade, in the 2023–24 financial year merchandise exports totalled A\$659 442 million while merchandise imports totalled A\$604 614 million, resulting in a trade surplus of A\$54 828 million.

Source: The Australian Economy and Financial Markets, RBA Chart Pack, May 2025

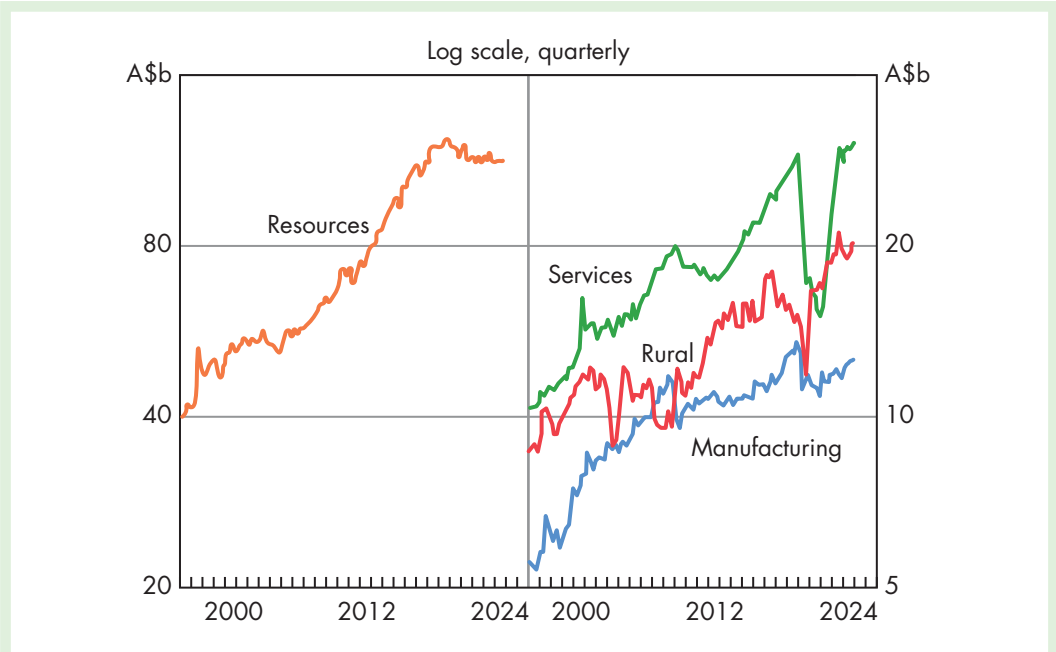


FIGURE 1.15 Australia’s export volumes



Weblinks
Department of
Foreign Affairs and
Trade

Australian Bureau of
Statistics

Reserve Bank of
Australia

ECONOMICS DATA



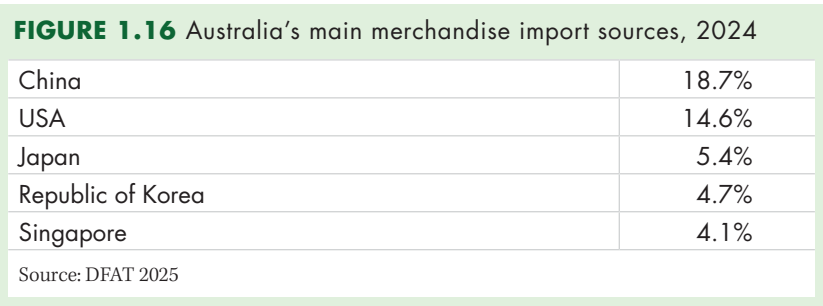
Find the most recent statistics online showing the value of imports, exports and trade balance for Australia. The Department of Foreign Affairs and Trade, the Australian Bureau of Statistics, and the Reserve Bank of Australia Chart Pack would be suitable sites for finding this information.

1.6.2 Direction of Australia’s trade

For much of Australia’s history, its main trading partner was the UK. In more recent times, however, Australia’s trade has had an increasingly Asian focus, starting with Japan, and more recently China, India and other Asian nations.

Imports

Four Asian nations were in the top five of Australia’s import sources in 2023. These were China, Japan, the Republic of Korea and Singapore which together accounted for 34.8 per cent of our imports. The USA rounded out the top five: see Figure 1.16. This reflects the growing importance of our trade with Asia, and Australia’s greater participation in the Asian economy and regional trading blocs such as Asia-Pacific Economic Cooperation (APEC) and the Association of Southeast Asian Nations (ASEAN).



Exports

Given that our exports are primarily from the resources sector, it would come as no surprise that Australia exports primarily to nations that manufacture elaborately transformed manufactured goods. Four Asian nations are among the top five, these being China, Japan, the Republic of Korea and India, with the USA being the other top-five destination for our exports. This is shown in Figure 1.17.



ECONOMICS IN ACTION



Use the Department of Foreign Affairs and Trade website to find the trade statistics for the past two years.

- Analyse** these statistics and the changes from one year to the next, and show these changes as percentages.
- Show these changes for type of exports and imports, and also for import and export destinations.



1.6.3 Implications of changes in trade

The trend to see Asia as our most important market for exports and source of imports has several implications for Australia:

- 1 Australia must continue to pursue membership of ASEAN, and maintain membership of APEC and the Trans-Pacific Partnership trade agreement. In addition, we need to make and continue free trade agreements with individual countries in Asia, as we have already done with China, Japan, Thailand, Singapore and many other countries. At the same time, it is necessary to balance geopolitical dynamics and potential trade tensions, as Australia's movement towards Asia can also create vulnerabilities to shocks in Asian economies (for example, China's economic growth or trade disputes).
- 2 The improvement in living standards in Asian nations gives Australia the opportunity to broaden its export base to include areas such as tourism and education. For example, increasing numbers of people from China are visiting Australia as a result of the rise in income of the Chinese people. In addition, many Chinese students are enrolling in Australian educational institutions (both secondary schools and universities).
- 3 Increasing our markets for exports, and increasing the competition from imports for domestic producers, mean that Australia is increasingly subject to fluctuations in world economic conditions.
- 4 Australia has an opportunity to increase export markets and thus economic growth, also giving domestic consumers better opportunities to buy goods on the Australian market. It is in Australia's interests to prioritise improving relationships with its Asian neighbours, with a focus on expanding access to their markets.
- 5 Australia's industry is under greater pressure to maintain and improve efficiency to increase market share. Therefore, increasing productivity in Australian industries is a major objective of current economic policy. For example, in the Pilbara region of Western Australia, mining companies such as Rio Tinto and BHP have embraced automation to boost productivity. These companies have implemented automated trucks, trains and drilling systems, which allow them to operate mines with fewer workers, lower labour costs and increased safety.



FIGURE 1.18 Mining companies in the Pilbara region are embracing automation to boost productivity.

1.7 Trade theories

KEY IDEA

Theories of trade are based on a number of propositions that are useful in explaining how trade should occur, the gains that accrue and the fact that trade is a dynamic concept.

Trade theories attempt to explain how trading partners can benefit the most from the international exchange of goods and services to increase overall economic output and growth. We will focus on three theories: absolute advantage (see 1.7.1), comparative advantage (see 1.7.2) and competitive advantage (see 1.7.3).

1.7.1 The principle of absolute advantage

CONCEPTS



Absolute advantage: the ability of a nation to produce commodities more efficiently than another nation

Domestic consumption: goods and services consumed in the country where they are produced

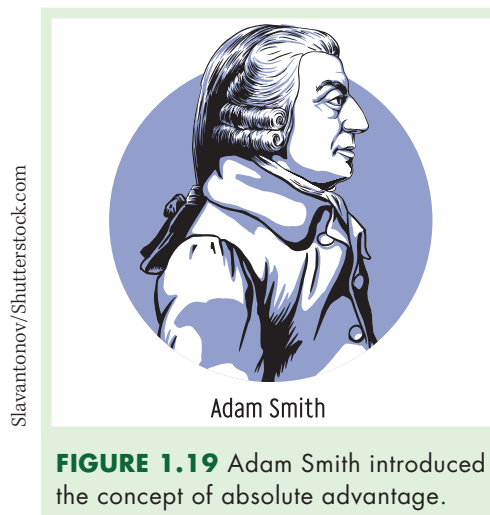
Protection: any policy implemented by government to provide domestic producers with an artificial advantage over foreign competitors

Specialisation: the specific use of resources in narrowly defined economic activities

KEY IDEA

The principle of absolute advantage argues that it is to the mutual benefit of all if trade takes place after each nation has devoted its resources to those productive processes in which it has an absolute advantage.

Adam Smith's theory of **absolute advantage** (*The Wealth of Nations*, 1776) states that a nation is said to have an absolute advantage in the production of a commodity when it is able to produce that commodity more efficiently than another nation.



A model of absolute advantage

The principle of absolute advantage can be illustrated by a simple model in which we make certain assumptions.

- There are only two countries, Australia and Zigland (an imaginary country).
- Each country has an equal quantity of resources, but not of the same quality.
- Each country attempts to produce and consume only two commodities: wool and television sets.
- The resources of each country are perfectly mobile; that is, they can be moved from one industry to the other at no cost.
- If trade takes place, there are no transfer costs.

Figure 1.20 illustrates the production-possibilities curves for the two countries in our model. The production-possibilities curve is simply the line that connects all the alternative maximum-output combinations that each country can produce with its stock of land, labour, capital and enterprise. Each country can choose only one output combination at any one time. If Australia devotes all its resources to the production of wool, it is capable of producing 10 million bales yearly, but is unable to produce any television sets. However, if Australia devotes all its resources to the production of television sets, it is capable of producing 6 million sets yearly, but is unable to produce any wool.

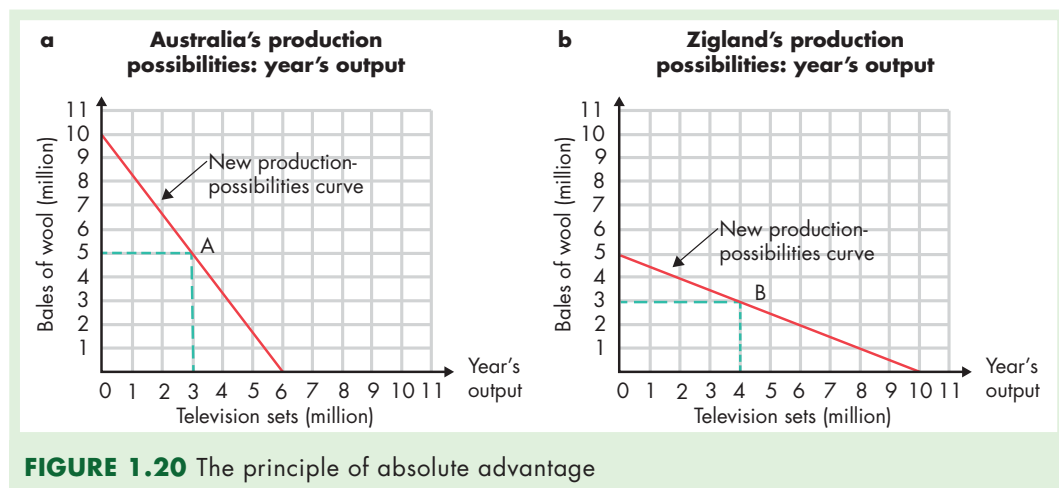


FIGURE 1.20 The principle of absolute advantage

Suppose that Australia settles for the output combination shown by point A in Figure 1.20(a). This means that the Australian economy produces 5 million bales of wool and 3 million television sets. At this stage, no trade takes place between the two nations in our model. Each nation operates as a closed economy and all production is for **domestic consumption**.

In the same way, we can analyse Zigland's production-possibilities curve in Figure 1.20(b). We can see that Zigland's maximum output limit is either 5 million bales of wool or 10 million television sets yearly. Let us imagine that Zigland settles on the output combination shown by point B; that is, 3 million bales of wool and 4 million television sets.

Applying Australia to the economic model

By comparing Australia's production-possibilities curve with that of Zigland, we can see that Zigland has an absolute advantage over Australia in the production of television sets, because it is able to produce more sets while using the same quantity of resources. On the other hand, Australia has an absolute advantage over Zigland in the production of wool; that is, Australia can produce more wool than Zigland, using the same quantity of resources. It follows that, if each country chooses to

specialise in the production of the commodity for which it has an absolute advantage and decides to trade its surplus with the other, there are considerable advantages to be gained by all.

As Figure 1.21 shows, specialisation by each nation leads to a significant increase in the overall output of the two-nation economy in our model. Prior to specialisation, when each nation was operating as a closed economy and was attempting to meet its own domestic requirements in both commodities, the total output of wool was 8 million bales and the total output of television sets was 7 million (Figure 1.21(a)). With the introduction of specialisation and a mutual agreement to trade with each other, total output of both commodities is increased to 10 million units per annum (Figure 1.21(b)). It is evident that the opportunity cost of each nation operating as a closed economy is equivalent to 2 million bales of wool and 3 million television sets.

FIGURE 1.21 The principle of absolute advantage

		Bales of wool (millions)	Television sets (millions)
a	Production and consumption without trade		
	Australia	5	3
	Zigland	3	4
	Total production	8	7
b	Production with specialisation		
	Australia	10	0
	Zigland	0	10
	Total production	10	10
c	Possible consumption		
	Australia	6	4
	Zigland	4	6
	Total consumption	10	10

Should we trade in this example?

The terms under which trade will take place between the two nations in our model will depend upon negotiations. Australia might agree to trade provided that at least 3 million television sets are received in exchange for its surplus wool (this is the volume of consumption of television sets in Australia before specialisation). Zigland might agree to trade provided that at least 3 million bales of wool are received in exchange for its surplus television sets. A minimum rate of exchange between the two nations would be one bale of wool for one television set. A possible trade outcome that both countries might agree to is shown in Figure 1.21(c). If we compare the distribution of commodities in (c) with the distribution in (a), it is evident that specialisation and trade have increased consumer welfare in both countries through the greater availability of both commodities.

As a result of a more efficient use of resources, the overall output of our two-nation economy has increased. This is the essence of all international trade theory. When economists argue for a reduction in **protection** levels and for more specialisation, they are advocating a more efficient use of the world's resources to increase output levels in the world economy.

How does the principle of absolute advantage apply in cases where one nation's capacity exceeds another's in the production of all commodities? Under these conditions, it may appear that the more efficient nation has no benefit to gain from trade. Economists have shown that this may not be true if the principle of comparative advantage can be applied: see 1.7.2.

CHECK FOR UNDERSTANDING 1.5

- 1 **Recall** the advantages of specialisation in world trade.
- 2 **Describe** the theory of absolute advantage in your own words.
- 3 Do you think that the theory of absolute advantage still applies in today's world? Give reasons for your answer.

1.7.2 The principle of comparative advantage

CONCEPTS



Comparative advantage: the ability of a nation to produce a product at a lower opportunity cost of production than another nation

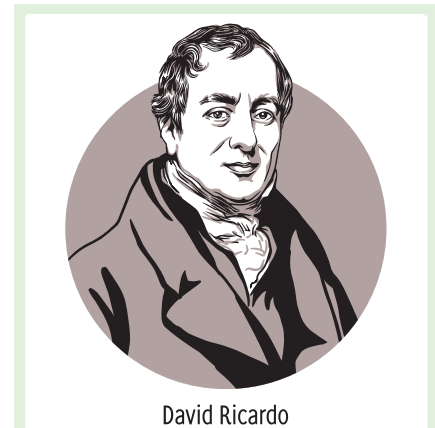
David Ricardo's theory of **comparative advantage** (*On the Principles of Political Economy and Taxation*, 1817) argues that nations may benefit from specialisation and trade even in cases where one nation has an absolute advantage over another nation in the production of all commodities.

A model of comparative advantage

Once again, to illustrate this principle, we use the simple two-nation, two-commodity model. The assumptions are the same as those used to develop the principle of absolute advantage.

- There are only two countries, Australia and Zagland (an imaginary country).
- Each country has an equal quantity of resources, but not of the same quality.
- Each country attempts to produce and consume only two commodities: wheat and motor vehicles.
- The resources of each country are perfectly mobile; that is, they can be moved from one industry to the other at no cost.
- If trade takes place, there are no transfer costs.

Figure 1.23 shows the production-possibilities curves for the production of wheat and motor vehicles in Australia and Zagland. Comparing the two curves, we see that Australia has an absolute advantage over Zagland in the production of both commodities. If Australia devotes all of its resources to the production of wheat, it can produce more than Zagland, and if Australia devotes all of its resources to the production of motor vehicles, it can again produce more than Zagland. It may appear that Australia has nothing to gain from trade with Zagland. However, Figure 1.24 shows this to be incorrect. Let us assume that, before specialisation and trade, Australia produces an output combination as indicated by point A on its production-possibilities curve; that is, 6 million tonnes of wheat and 200 000 motor vehicles yearly. At the same time, Zagland produces the output combination indicated by point B on its production-possibilities curve; that is, 2 million tonnes of wheat and 200 000



David Ricardo

FIGURE 1.22 David Ricardo proposed the theory of comparative advantage.

Slavantonov/Shutterstock.com

motor vehicles yearly. At this stage, both countries operate closed economies in which all production is entirely for satisfying domestic consumption. Total annual production in the two-nation model stands at 8 million tonnes of wheat and 400 000 motor vehicles.

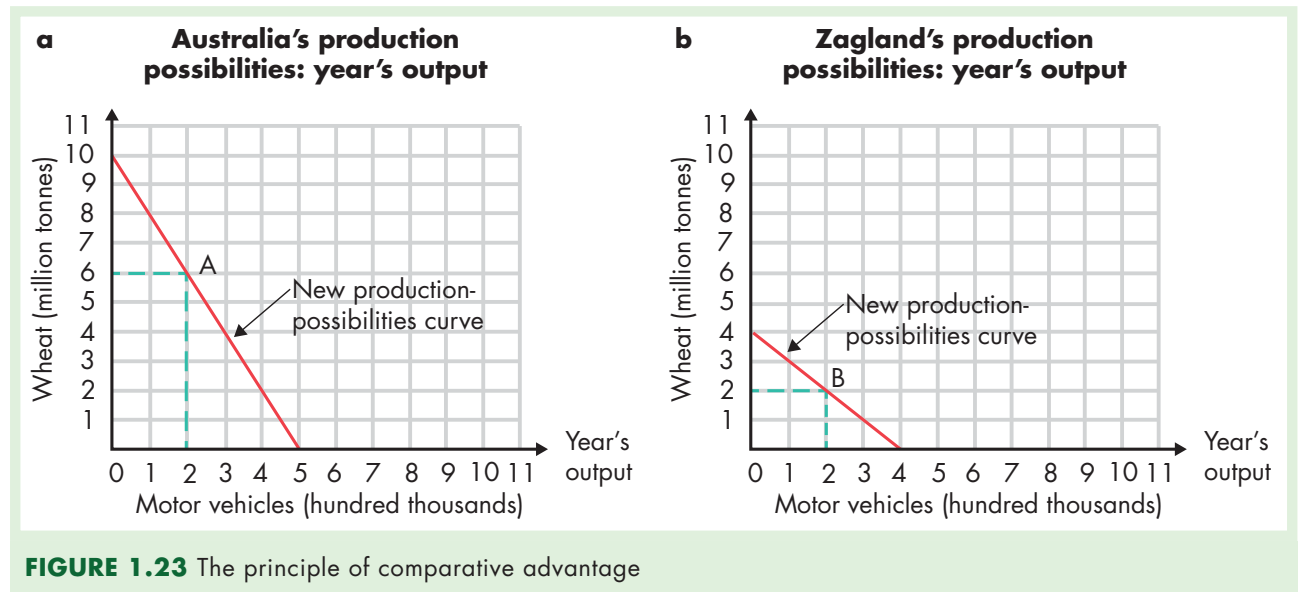


Figure 1.24 shows that Australia has the greatest absolute advantage in the production of wheat and that Zagland has the least disadvantage in the production of motor vehicles. If the principle of comparative advantage is applied so that Australia concentrates on wheat production and Zagland on motor vehicle production, total annual output in the two-nation model will rise to 10 million tonnes of wheat and 400 000 motor vehicles. In this case, the gain from specialisation is in wheat production.

FIGURE 1.24 The principle of comparative advantage

		Wheat (million tonnes)	Motor vehicles (100 000 units)
a	Production and consumption without trade		
	Australia	6	2
	Zagland	2	2
	Total production	8	4
b	Production with specialisation		
	Australia	10	0
	Zagland	0	4
	Total production	10	4
c	Possible consumption after trade		
	Australia	7	2
	Zagland	3	2
	Total production	10	4

Once again, the terms of trade between the two nations will depend upon negotiations. Australia will trade its surplus wheat provided that at least 200 000 motor vehicles are received in return (the level of Australia's motor vehicle output prior to specialisation). By the same token, Zagland will trade its surplus motor vehicles provided that at least 2 million tonnes of wheat are received in return (the level of Zagland's wheat output prior to specialisation). Figure 1.24 shows a possible outcome from specialisation and trade, where both Australians and Zaglanders benefit from greater consumption of wheat without reducing their consumption of motor vehicles.

The theory of comparative advantage forms the justification of trade liberalisation from the early 1990s through the gradual removal of trade restrictions. However, trade on the basis of comparative advantage can also lead to too much specialisation, which can make countries vulnerable. In the post-COVID-19 era, developed countries seem to be shifting back towards more protectionist-style trade policies.

CHECK FOR UNDERSTANDING 1.6

- 1 Under what circumstances can there be mutual benefits from trade when one of the countries has an absolute advantage in all types of production?
- 2 **Describe** how trade between two nations be mutually beneficial.
- 3 **a** What are the basic assumptions made in the theory of comparative advantage?
b When each of these basic assumptions is removed, does the theory of comparative advantage still work? **Explain** your answer.
- 4 **Explain** the principle of comparative advantage.
- 5 What is the difference between the principle of absolute advantage and the principle of comparative advantage? What criticisms might be levelled at the theory of comparative advantage?

ECONOMICS CHALLENGE



Worksheet
1.1 Economics
Challenge

Figure 1.25 shows two countries and their production without trade. Use this information to answer the following questions.

- 1 **Identify:**
 - a** which country has the absolute advantage
 - b** which country has the comparative advantage
 - c** which country is at a comparative disadvantage, and in which product does it have the least comparative disadvantage.
- 2 Demonstrate how the countries would benefit from specialising and trading.

FIGURE 1.25

	Motor vehicles	Television sets
Pacifica	250	100
Europa	160	80

1.7.3 The principle of competitive advantage

CONCEPTS



Competitive advantage (of a nation): trade advantage obtained through the capacity of a nation's industries to innovate and upgrade

Self-sufficiency: the ability of a nation to produce sufficient products to meet its own needs from domestic sources

Harvard economist Michael Porter introduced his theory of **competitive advantage** in 1990, in which he argues that a nation's prosperity relies on the ability of its industry to be innovative and to adopt technology.

Porter developed four broad criteria for a nation to achieve competitive advantage of its industries. These are illustrated in Porter's Diamond of National Advantage, shown in Figure 1.26.

- **Factor conditions:** The nation must have an advantage in factors of production; for example, skilled labour or infrastructure. Porter argues that nations need not be well endowed with the factors; they can be created through investment for infrastructure and highly specialised training of the workforce.
- **Demand conditions:** The nation can benefit from having a clear view of consumer demand by first developing a domestic market to help anticipate international market needs.
- **Related and supporting industries:** The nation can gain an advantage by having efficient and internationally competitive supplier industries.
- **Firm strategy, structure and rivalry:** Conditions governing company creation, organisation and management, and domestic rivalry need to be disciplined, flexible and supportive of innovation.

Circumstances in one country may be different from, yet just as effective as, those of another country seeking competitive advantage, as long as the four conditions in the diamond complement each other.

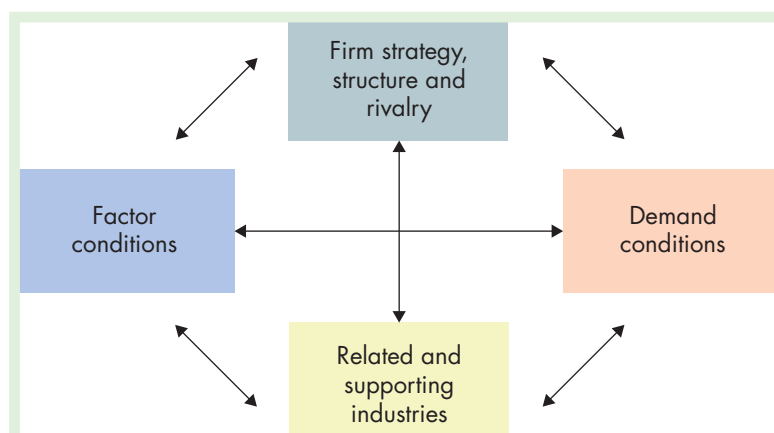
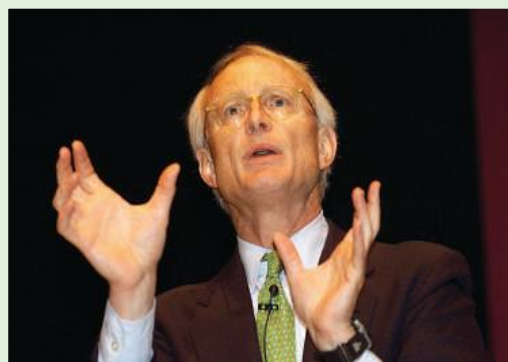


FIGURE 1.26 Porter's Diamond – determinants of national competitive advantage

Trade offers nations the opportunity to share the world's resources and provides access to resources that might otherwise not be available. International trade theory is concerned not only with the efficient use of resources within nations, but also with efficient resource allocation in the world as a whole. If nations try to be completely **self-sufficient**, the potential gains from production are not maximised. There are always opportunity costs associated with attempts to maintain self-sufficiency. If all nations in the world were to specialise, overall global output would increase as a result of a more efficient use of resources.

In the real world, nations tend, for varying reasons, to cling to self-sufficiency. Specialisation requires that nations become dependent upon each other for the provision of essential goods and services. It is this fear of dependence that often generates criticism of international trade theory.



BonkersAboutPictures/Alamy Stock Photo

FIGURE 1.27 Michael Porter introduced the theory of competitive advantage.

1.7.4 Intra-industry and intra-company trade

CONCEPTS



Intra-company trade: trade between affiliates of the one organisation; for example, between a home-based subsidiary and a foreign-based subsidiary of the same company

Intra-industry trade: trade that occurs when a nation imports and exports the same good simultaneously

Transfer price: the price charged for goods by one subsidiary of a multinational corporation to another subsidiary of the same company in another country

Other economists have suggested that the theories already described do not allow for intra-industry and intra-company trade. **Intra-industry trade** occurs when a nation imports and exports the same good simultaneously. This may be explained by such factors as seasonal variations in climate (for example, Australia imports strawberries from New Zealand during the Australian summer) and differentiated products (for example, Australia imports wine from France and Germany, while exporting wine to New Zealand at the same time). While intra-industry trade allows consumers to have a wider choice of products available, it results in the loss of economies of scale associated with specialisation. Nearly all intra-industry trade occurs between economically advanced countries, which are able to afford the additional costs associated with variety of product.

Some 30–40 per cent of world trade in manufacturing is carried out within companies. **Intra-company trade** occurs between affiliates of the one organisation; for example, between a home-based subsidiary and a foreign-based subsidiary of the same company. In this situation, the importer and the exporter are essentially the same company. This often

happens when there is vertical integration within the company. For example, a company may mine coal in one country and use it in steel mills in another country, or manufacture sports shoes in one country and retail them in another.

The difficulty with this is the use of transfer pricing. The **transfer price** is the price charged by one subsidiary of a multinational corporation on the sales to another subsidiary of the same company in another country. Such prices are often calculated to reduce company tax, by making paper profits as high as possible in countries with low taxation, and small profits in countries with higher taxation. When this happens, a country loses taxation revenue, shareholders (if any) lose profits in that country, and terms of trade and balance of payments are affected.

CHECK FOR UNDERSTANDING 1.7

- 1 **Describe** how the principle of competitive advantage would apply to Australia.
- 2 **Explain** why most intra-industry trade occurs between nations that are economically advanced.
- 3 **Describe** how intra-company trade interferes with theories of trade.

ECONOMICS CHALLENGE



Devise a trade and industry strategy for Australia, applying your understanding of the theories of trade.

- 1 **Identify** an industry in which Australia may have an absolute advantage, or one upon which you consider it desirable for Australia to focus. (This will require some research.)
- 2 How might the government support the industry to maintain and develop its competitive advantage and so promote international trade?
- 3 Prepare a one-page summary accompanied by a supporting infographic, using a program such as Canva (include specific facts and figures).

1.8 Challenges in trade

CONCEPTS



Free trade agreement: an agreement between nations to allow the unimpeded passage of goods between the nations

Australia faces some challenges and issues in its international trade policies. These include the following:

- **Global trade tensions:** Trade wars, tariffs and protectionist policies can disrupt Australia's trade flows and market access. For example, the USA–China trade war in 2018–19, which involved widespread tariff increases, led to global supply chain disruptions and heightened trade uncertainty. It is important for Australia to maintain strong diplomatic ties, push for rules based-trade, and explore new markets to mitigate the impact of such conflicts on our export-driven economy.

- **Access to new and emerging markets:** While we hold strong trade relationships with established markets such as China, the Republic of Korea and Japan, we need to be able to tap into new and emerging markets such as India, Vietnam and Indonesia for future growth.
- **Agricultural export competition and subsidies:** Australia's agricultural sector faces strong competition from countries that heavily subsidise their farmers, such as the USA and those in the European Union. Australia must continue to advocate for the reduction of these subsidies through the World Trade Organization.
- **Trade policy uncertainty post-COVID-19:** Global supply chains were disrupted due to the COVID-19 pandemic, and trade policies shifted towards self-sufficiency in many countries. This raises questions about the long-term resilience of global trade and the importance of supply chain diversification.
- **Technological changes and digital trade:** Issues such as data protection, cybersecurity and digital trade barriers can affect Australia's ability to participate in the digital economy. This means Australia must develop robust digital trade policies and negotiate rules in its **free trade agreements**. These are explored further in Chapter 5.

1.8.1 Looking ahead for Australia's trade

Australia must adapt to an unpredictable global trade environment, where economic nationalism, shifting power dynamics and technological disruption shape the future of trade. Ensuring trade diversification, supply chain resilience and digital trade competitiveness will be key to maintaining long-term economic growth and stability.

R 1.1 Terminology

Select the correct term from the list below that describes each statement.

A Comparative advantage	F Specialisation
B Absolute advantage	G Intra-company trade
C Competitive advantage (of a nation)	H Open economy
D Imports	I Factor endowment
E External stability	J Human capital

- 1 Trade between affiliates of the one organisation; for example, between a home-based subsidiary and a foreign-based subsidiary of the same company
- 2 The ability of a nation to produce commodities more efficiently than another nation
- 3 The knowledge, experience and skills of individuals, in which nations must invest if they are to advance
- 4 Goods that enter Australia from overseas
- 5 The supply of the factors of production (land, labour, capital and enterprise) that exists in a country
- 6 The specific use of resources in narrowly defined economic activities
- 7 The ability of a nation to produce a product at a lower opportunity cost of production than another nation
- 8 The situation in which there are no unwanted movements of foreign reserves in the balance of payments
- 9 Trade advantage obtained through the capacity of a nation's industries to innovate and upgrade
- 10 Any nation that trades with other nations

R 1.2 Multiple-choice questions

Select the correct response to each of the following:

- 1 The principle of comparative advantage shows:
 - A** that nations can benefit from specialisation and trade even if they do not have an absolute advantage.
 - B** that nations ought to operate as closed economies.
 - C** that nations ought to concentrate on the production of only one commodity that will give a surplus that can be traded.
 - D** that nations can only benefit from multilateral trade.
- 2 A country (A) has an absolute advantage over another country (B) in the production of coal if:
 - A** A's total output of coal is greater than B's.
 - B** A can produce more coal over a year.
 - C** there is more demand for coal in A.
 - D** A can produce coal at lower resource cost per unit than B.

Review of Chapter 1

- 3 The principle of comparative advantage shows that the benefits of trade rely on:
 - A resource costs.
 - B opportunity cost.
 - C marginal costs.
 - D transport costs.
- 4 Australia's main trading partners are:
 - A Russia and China.
 - B New Zealand and the USA.
 - C China and Japan.
 - D China and the USA.
- 5 International trade increases the standard of living of a country because it:
 - A increases the range of goods and services available.
 - B enables the government to increase its revenue through the collection of tariffs.
 - C creates employment in import-competing industries.
 - D overcomes high transportation costs.
- 6 The principle of comparative advantage is based on:
 - A the concept of opportunity cost.
 - B the money cost of producing a good.
 - C increasing opportunity costs.
 - D constant opportunity costs.
- 7 Australian exports are comprised mainly of:
 - A manufactured products.
 - B farming machinery and plant.
 - C clothing and textiles.
 - D agricultural and mining products.
- 8 A nation will gain if:
 - A exports increase and imports decrease.
 - B exports decrease and imports increase.
 - C both exports and imports increase.
 - D both exports and imports decrease.
- 9 When a country exports:
 - A domestic producers gain and domestic consumers gain.
 - B domestic producers lose and domestic consumers gain.
 - C domestic producers gain and domestic consumers lose.
 - D domestic producers lose and domestic consumers lose.
- 10 Australian exports are classified into four sectors. The ranking of these export sectors, from largest to smallest is:
 - A services, manufacturing, mining, agriculture.
 - B mining, services, manufacturing, agriculture.
 - C manufacturing, mining, services, agriculture.
 - D mining, manufacturing, services, agriculture.

- 11 Which of the following does *not* explain the change in direction of Australia's pattern of trade in recent years?
- A The Asia-Pacific region has achieved higher rates of economic growth than Europe and the USA.
 - B The discovery and development of major natural gas reserves in Australia is expanding.
 - C Lower transport costs have given Australia an advantage when exporting to the Asia-Pacific region compared with Europe.
 - D China has become a more significant participant in world trade.
- 12 The fundamental economic advantage of free world trade is:
- A the easing of political tensions between nations.
 - B all nations will develop similar industries.
 - C all nations will share equally in the world's wealth.
 - D a more efficient allocation of resources.
- 13 International trade is said to be due to differences in countries' comparative costs, which refers to:
- A the relative efficiency of production of goods in different countries.
 - B prices of exported goods compared to the price of imported goods.
 - C the average cost of making different goods in one country.
 - D the relative amounts of immobile resources used in different countries in the manufacture of export goods.
- 14 International trade takes place because of:
- A inequalities in factor endowments between nations.
 - B governments' desires to protect their industries.
 - C differences in price levels in various countries.
 - D inequalities in the terms of trade.

R 1.3 Short response questions

- 1 **Describe** three ways in which international trade differs from domestic trade.
- 2 **Recall** three reasons why the overseas sector is so important to the domestic economy.
- 3 **Describe** how trade between two nations can be mutually beneficial.
- 4 **Explain** how events in an overseas economy can affect Australia's trade.
- 5 Do you agree that Asian nations will become more important as Australia's trading partners? Why or why not?
- 6 **Describe** which nations have decreased in importance as Australia's trading partners. Why?
- 7 **Describe** how the composition of trade has changed over the past 20 years.
- 8 **Explain** how increased tourism from overseas benefits Australia.
- 9 **Recall** three reasons why China has become Australia's main trading partner.
- 10 **Distinguish** between absolute and comparative advantage.

R 1.4 Activities

- 1 Imagine that you own a secluded tropical island. Climatic conditions on your island indicate that it is suited to the production of either pineapples or bananas. Preliminary studies indicate that your resources are capable of the annual output combinations set out in Figure 1.28.

FIGURE 1.28

Bananas (cartons)	Pineapples (cartons)
9000	0
8000	500
6000	1400
4000	2200
2000	3100
1000	3600
0	4000

- a Plot a production-possibilities curve based on the output combinations.
 - b Assuming that current prices for cartons of bananas and pineapples at the nearest mainland market are \$8 and \$16 respectively, which output combination would you choose? Why?
- 2 Figure 1.29 shows the production patterns of two countries with equal quantities of resources, which they divide evenly between consumer goods and capital goods production. Each country is at present producing all its own consumer and capital goods.

FIGURE 1.29

Country	Consumer goods	Capital goods
Riverland	1800	900
Bushland	2100	700
Total production	3900	1600

- a Which of the following statements are true?
 - i Riverland has an absolute advantage in the production of consumer goods.
 - ii Riverland has an absolute advantage in the production of capital goods.
 - iii Riverland has an absolute advantage in the production of neither type of good.
 - iv Bushland has an absolute advantage in the production of consumer goods.
 - v Bushland has an absolute advantage in the production of capital goods.
 - vi Bushland has an absolute advantage in the production of neither type of good.

- b Answer the following questions in relation to opportunity cost.
- i For Riverland, what is the opportunity cost of producing 1 unit of consumer goods?
 - ii For Bushland, what is the opportunity cost of producing 1 unit of consumer goods?
 - iii Which country has a comparative advantage in the production of consumer goods?
 - iv For Riverland, what is the opportunity cost of producing 1 unit of capital goods?
 - v For Bushland, what is the opportunity cost of producing 1 unit of capital goods?
 - vi Which country has a comparative advantage in the production of capital goods?
- c i If both countries decide to specialise and trade in the goods in which they have a comparative advantage, each can produce twice the amount of goods in which it specialises. Compile a table showing their production after they specialise.
- ii Assuming each country wishes to consume at least the same amount of goods before specialisation, work out a possible consumption pattern after specialisation and trade.
- 3 An economics teacher asked a group of economics students to outline the main advantage to be gained from increasing Australia's exports. The teacher received five answers:
- a 'Exports provide jobs for our workforce.'
 - b 'Exports help us to obtain cheaper unit costs.'
 - c 'Exports give us a surplus of money from overseas.'
 - d 'Exports help to spread the market risk.'
 - e 'Exports utilise excess capacity.'
- Comment on the economic reasoning supporting each response.

R 1.5 Investigation – research topics

- 1 **Analyse** the composition of Australia's exports and imports, and changes that have occurred in the past 20 years. **Evaluate** whether this has been beneficial for the Australian economy using one economic criterion. Recommend a change that would be beneficial for the Australian economy.
- 2 **Analyse** the composition and direction of Australia's trade. **Evaluate** the composition and direction with regard to its benefits for the Australian economy using one economic criterion.
- 3 **Evaluate** the decision to promote import replacement industries using one economic criterion. In your response, refer to one economic theory.

Economics Challenge worksheets:

1.1 Economics Challenge

 Nelson MindTap

To access resources above, visit
cengage.com.au/nelsonmindtap





2

Exchange rates

This chapter examines movements in exchange rates over time and explores the consequent impacts on the domestic economy.

Focus questions and inquiries

- Why does the value of the Australian dollar change? What effect does this have?
- Do the terms of trade affect the Australian economy? If so, how?
- What would happen to the Australian economy in the event of a currency crisis?
- How do governments respond to exchange rate movements?

This chapter will examine:

- what an exchange rate is
- what determines the demand and supply of a currency
- the types of exchange rates
- terms of trade
- the causes of appreciation and depreciation
- government policy response to exchange rate movements and changing trade relationships.

2.1 International trade – exchange rates

A common misconception is that international trade involves the direct exchange of commodities between nations. Although we refer to Australia trading with other countries, it is actually individuals, firms and organisations that conduct the transactions. Commodities are paid for in much the same way as we pay for household goods. However, the payment procedure is more complicated because:

- the importer and exporter are usually separated by long distances and therefore cannot always meet to finalise transactions
- different currencies are involved
- the currencies involved usually have different purchasing powers
- numerous transport, handling and storage costs are involved
- governments frequently impose regulations and additional charges.

ECONOMICS DATA



Find current data for the following:

- 1 terms of trade
- 2 current and recent exchange rates of the Australian dollar
- 3 Australian dollar trade – weighted index.

Follow the links to the following sites, which are particularly relevant: the Australian Bureau of Statistics, the Reserve Bank of Australia and the Australian Parliamentary Library.



Weblinks
Australian Bureau
of Statistics

Reserve Bank of Australia

Australian Parliamentary
Library

2.2 How are international payments made?

KEY IDEA

International transactions require a process through which payments can be made. The role of financial institutions is of paramount importance in facilitating international currency exchange between economies.

When Australian producers sell goods overseas, they want to be paid in Australian dollars. The same applies to Japanese manufacturers who sell goods to Australia. They want to be paid in Japanese yen. How then is the problem resolved? Firms do not need to carry supplies of all the currencies in the world. Instead, the banking system in each country facilitates the transaction.



iStock.com/jessicaphoto

FIGURE 2.1 The role of financial institutions is important in facilitating currency exchange.

2.2.1 Foreign payments

Figure 2.2 provides a simple outline of the payment procedures followed when commodities are traded between nations. Let's imagine that an Australian fruit canner sells a quantity of canned fruit to a Japanese buyer. The Australian canner has arranged with the Japanese buyer to be paid in Australian dollars. Typically, payment occurs once the importer receives shipping documents confirming that the goods have been dispatched. The exact timing, however, depends on the agreement between the buyer and seller. Assume that the Japanese buyer has received shipping documents to indicate that a load of canned fruit is on its way to Japan. The buyer contacts their Japanese bank and negotiates to transfer funds in Australian dollars. The buyer pays for these Australian dollars in yen. The funds are transferred electronically to the Australian canner's bank account. As you can see, no actual money changes hands between buyer and seller. The entire transaction is accomplished electronically.

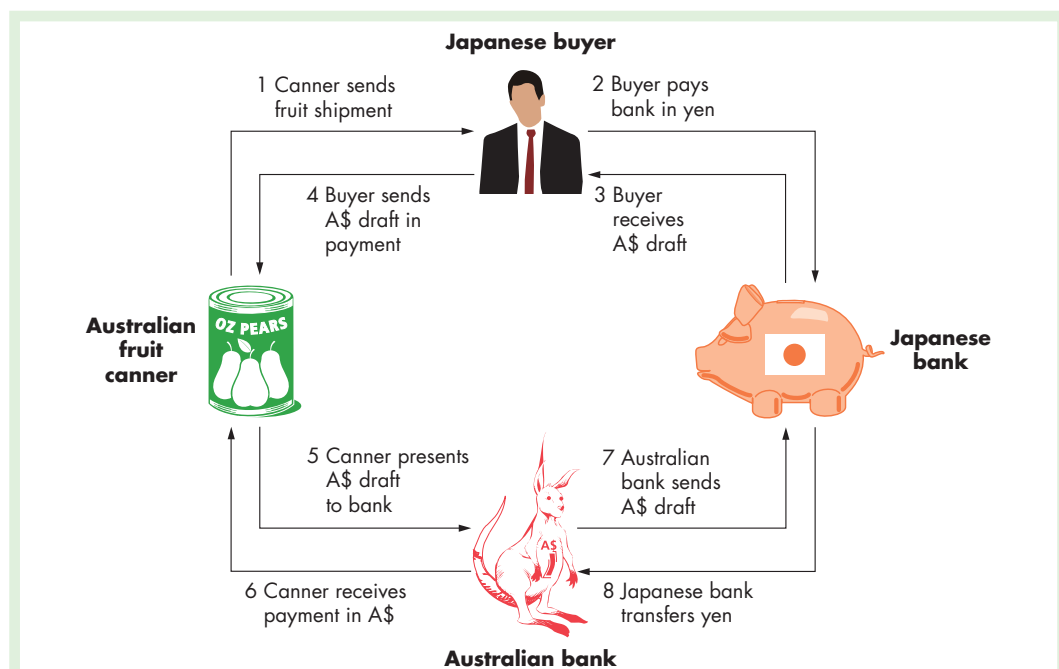


FIGURE 2.2 How foreign payments are made

Transactions involving large sums of money are often settled using a third country's currency acceptable to both trading nations. For instance, trade between Australia and Japan is frequently settled in US dollars.

KEY IDEA

It is possible for the international banking system to conduct its business through electronic entries without the need for frequent international movements of currency.

CHECK FOR UNDERSTANDING 2.1

- 1 **Describe** why transactions involving two nations are often settled in a third country's currency.
- 2 **Describe** the process you would need to follow if you were to buy a book from a US bookseller. Record this process with a flow chart. Pay particular attention to both flows: the movement of the book and the movement of the money.

2.3 What is an exchange rate?

CONCEPTS



Cost structure: the overall framework within a country that contributes to the final price of a commodity produced by that country

Currency appreciation: an increase in the value of a currency relative to other currencies under a floating exchange regime

Currency depreciation: a decrease in the value of a currency relative to other currencies under a floating exchange regime

Exchange rate: the value of the currency of a nation expressed in terms of the currency of another nation

Floating exchange regime: a system where a country's currency value is determined by supply and demand in the foreign exchange market, without direct government control

Foreign exchange (forex) market: a market where international currencies are bought and sold

KEY IDEA

The determination of exchange rates should be understood in terms of the price mechanism and the underlying market forces of supply and demand.

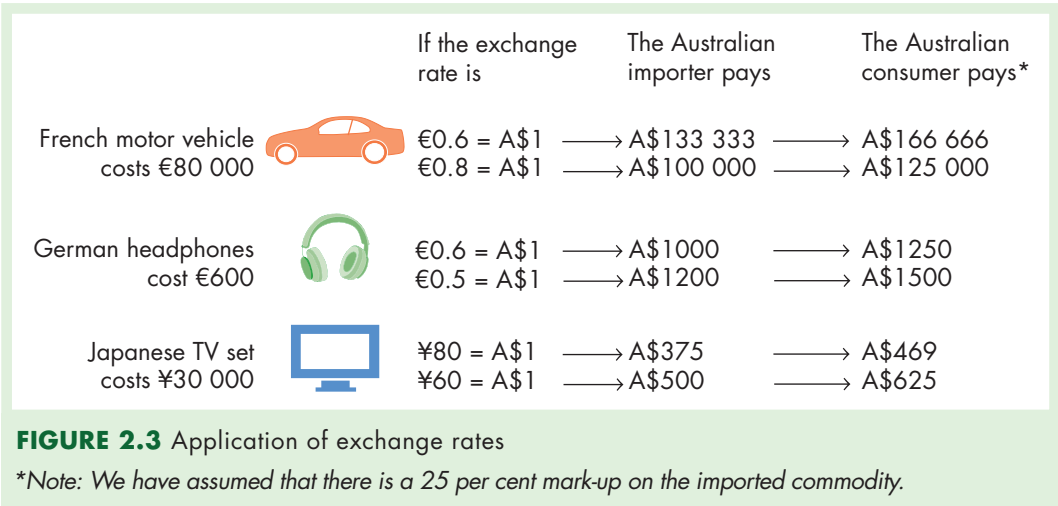
Perhaps the greatest complexity in international trade arises because each country has its own currency and each of these currencies has its own purchasing power.

When an Australian importer buys Japanese television sets, the price of the sets must be converted from Japanese yen (¥) to Australian dollars. An Australian tourist arriving in France must exchange Australian dollars for euros (€). Each country has its own currency that is classified as legal tender for all domestic transactions. Consequently, we find that the conversion process is necessary whenever a foreign monetary transaction occurs. To allow transactions to proceed smoothly, **exchange rates** for all currencies must be readily available. We may, therefore, say that an exchange rate expresses the value or purchasing power of the currency of a nation expressed in terms of the currency of another nation.

2.3.1 Value of exchange rate

When an exchange rate is set, it links the prices of goods and services (**cost structure**) between two countries. A change in the exchange rate changes how expensive or cheap foreign products become for local consumers, and vice versa. For instance, if we wish to make inter-country comparisons of wage levels or costs of living, it is necessary to use prevailing exchange rates. If the exchange rate is altered, the relative cost structures between countries are altered.

Figure 2.3 illustrates this very important relationship.



We can see that a French motor vehicle that sells for €80 000 in France will cost the Australian importer A\$133 333 if the exchange rate is €0.6 = A\$1. The Australian consumer may then purchase the vehicle from the importer for A\$166 666. (In this simple example, we have disregarded the effects of transport costs and various government taxes and charges that may be levied on the imported commodity, which would boost this hypothetical Australian retail price.)

If the exchange rate is altered to €0.8 = A\$1, the Australian consumer will pay less for the same vehicle. The situation illustrated here would arise in a **floating exchange regime** if a **currency appreciation** of the Australian dollar occurred against the euro or, alternatively, if a **currency depreciation** of the euro occurred against the Australian dollar. Either an appreciation of the Australian dollar or a depreciation of the euro would result in fewer Australian dollars being needed to meet the equivalent French price of the vehicle. You will notice that, even though the exchange rate has altered, the French price of the vehicle remains the same. The only price to alter is the Australian price of the imported commodity.



Figure 2.3 also illustrates the case of German headphones imported into Australia. This time we are also dealing with the conversion of euros into Australian dollars. If the German price of the headphones is €600, and the prevailing exchange rate is €0.6 = A\$1, the Australian importer will pay A\$1000. If the exchange rate is altered to €0.5 = A\$1, the importer will pay A\$1200. Again, we see the effect of either a depreciation of the euro or an appreciation of the Australian dollar. Either will result in more euros being needed to meet the equivalent value of the Australian dollar. The result in either case is that the Australian price of the imported headphones will fall.



The third example in Figure 2.3 differs from the other two. This time we have the case of a Japanese television set costing ¥30 000. At the prevailing exchange rate of ¥80 = A\$1,

the Australian importer pays A\$375 for the set. You will notice that, if the exchange rate is altered to ¥60 = A\$1, the Australian price of the television set increases substantially. The new exchange rate means that fewer yen are needed to meet the equivalent value of the Australian dollar. How does the change in the exchange rate for Japanese yen differ from the change in the two previous examples? In this case, we have illustrated the effect of a depreciation of the Australian dollar or, alternatively, an appreciation of the Japanese yen.

2.3.2 Australian dollar appreciation

As we have seen, an increase in the value of one nation's currency relative to another nation's currency is referred to as an 'appreciation'. An appreciation of the Australian dollar reduces the price of imported commodities, and therefore makes them more attractive to Australian consumers.

2.3.3 Australian dollar depreciation

A decrease in the value of one nation's currency relative to another nation's currency is referred to as a 'depreciation'. A depreciation of the Australian dollar increases the price of imported commodities and, consequently, makes them less attractive to Australian consumers.

2.3.4 Foreign exchange markets

Foreign exchange (forex) markets are international markets in which currencies are exchanged between countries. Foreign exchange markets, along with other financial institutions, buy and sell foreign currencies within their own country and with other countries. Foreign exchange markets operate 24 hours a day, as each centre throughout the world begins trading during its own 'office hours', or when its share market and banks are open. Speculators sometimes buy and sell currencies in expectation of making a financial gain.

ECONOMICS IN ACTION



- 1 Using the website of one of the major banks of Australia, examine the current exchange rates for various currencies, and the range of currencies available for purchase in Australia. If you were to visit the following countries and had \$10 000 to spend in each, how much of each country's currency would you obtain?
 - Japan
 - France
 - USA
 - China
 - UK
 - New Zealand
- 2 Using historical data available from the Australian Bureau of Statistics or the Reserve Bank of Australia (RBA) website, graph the movement of the Australian dollar for a one-month period, noting the changes and why they have occurred on the graph.



Worksheet
2.1 Exchange rates



Weblinks
Australian Bureau of
Statistics
Reserve Bank of Australia

KEY IDEA

Movements in exchange rates have a fundamental impact on the relative cost structures between economies, as well as on income earned from the factors of production (land, labour, capital and enterprise), domestic prices and contractual payments.

So far, we have said nothing about the effects of exchange rate movements on the price of Australian exports. These can be seen if we imagine that the commodities listed in Figure 2.3 are Australian exports and that foreign importers are buying the commodities for their home markets. Let us focus for a moment on professional services. Imagine that a French importer buys Australian professional services at a price of A\$20 000. If the exchange rate is A\$1 = €0.8, the French importer must pay €25 000 for those professional services. If the Australian dollar appreciates or the euro depreciates so that the exchange rate becomes A\$1 = €0.7, the importer must pay €28 571 for the same professional services. On the other hand, if the Australian dollar depreciated or the euro appreciated so that the exchange rate was A\$1 = €0.85, then the importer would pay only €23 529 for the same professional services.

Some effects of a depreciation or appreciation of the Australian dollar are shown in Figure 2.4.

FIGURE 2.4 Effects of changes in Australian exchange rates

Depreciation of A\$	Appreciation of A\$
• Australian exports become less expensive to overseas buyers. • There is growth in income and employment in export-oriented industries. • Australian imports become more expensive, and this could lead to a decline in imports and a growth of import-substitution industries, or increased inflation. • There is an increased level of the external debt that is measured in overseas currencies; for example, US\$. • The RBA may increase cash rates to slow down the depreciation of the dollar, and this may have an impact on domestic consumption and investment.	• Australian exports become more expensive to foreign buyers, and so income and employment in export industries may decline. • Australian imports become cheaper, and increased demand for imports may lead to an increase in the current account deficit. • There are decreased levels of external debt, where the debt is measured in overseas currencies. • The government may be more able to repay interest on external debt and so reduce the income component on the current account deficit. • Inflation may decrease as domestic prices on imports decline.

CHECK FOR UNDERSTANDING 2.2

- 1 Imagine that you have saved A\$2000 spending money for a holiday in the USA. What effect would a 10 per cent depreciation in the value of the Australian dollar have? Using the current exchange rate on a reliable website, show the actual gain or loss in US dollars.
- 2 **Describe** why an exchange rate is important for a nation.
- 3 **Describe** which economic institutions are involved in the exchange rate process.

ECONOMICS IN ACTION

FIGURE 2.5 Hypothetical currency exchange rates

23 March Year 1			23 March Year 2		
	Bank buys	Bank sells		Bank buys	Bank sells
US\$	0.8374	0.8234	US\$	0.6890	0.6840
UK£	0.6938	0.6905	UK£	0.4718	0.4664
Japanese ¥	207.87	204.41	Japanese ¥	138.90	136.39
NZ\$	1.73	1.71	NZ\$	1.20	1.91



Worksheet
2.1 Hypothetical currency
exchange rates

Note: To convert A\$ to foreign currency, multiply by the rate. To convert foreign currency to A\$, divide by the rate.

- 1 You have A\$100 and you buy US dollars with it on 23 March Year 1. How many US dollars would you get? Repurchase the Australian dollars with the US dollars you now have. How much Australian currency would you get back? **Explain** the loss that you incurred in this buy–sell transaction.
- 2 **Calculate** the percentage loss in purchasing power of the Australian dollar between 23 March Year 1 and 23 March Year 2 by specific reference to US dollars, UK pounds, Japanese yen and NZ dollars.
- 3 **Construct** a table comparing the purchasing power of A\$10 000 against US dollars, UK pounds, Japanese yen and NZ dollars as at 23 March Year 1, 23 March Year 2 and the present.
- 4 **a** Imagine you have inside access to Australian Bureau of Statistics information about a forthcoming release of very poor balance of payments statistics. This information is likely to panic the market and cause a sudden depreciation in the Australian dollar. **Explain** how you could use this information to make a profit on the foreign exchange market. Use an example to explain your argument.
b Should you take advantage of this inside information and accept the consequences? Justify the decision that you make.

2.4 Types of exchange rates

CONCEPTS



Floating exchange rate: the value of a currency determined by the forces of supply and demand in the foreign exchange market

A **floating exchange rate** is one that is determined by the action of the forces of supply and demand on a currency. Under this system, market forces, rather than the central banking authority in a fixed exchange system, decide the value of a currency. If the exports of a country are in high demand, there will be equivalent demand for that country's currency to pay for the exports. This demand pressure will cause the value of the currency to float upwards. On the other hand, if demand for that country's exports declines, the value of its currency will float downwards and the exchange rate will alter accordingly. In international money markets, currencies are bought and sold like any other commodity. There is a buying price and a selling price for any particular currency.

A managed or 'dirty' float is a floating exchange rate system where the central bank (the RBA in Australia) intervenes in the foreign exchange market by buying or selling a nation's currency.

A managed float can be explained by reference to Figure 2.6, which shows the effects on the exchange rate of a fall in demand for Australian dollars. The original price of the Australian dollar was P_1 , and after depreciating, the dollar's new value is P_3 .

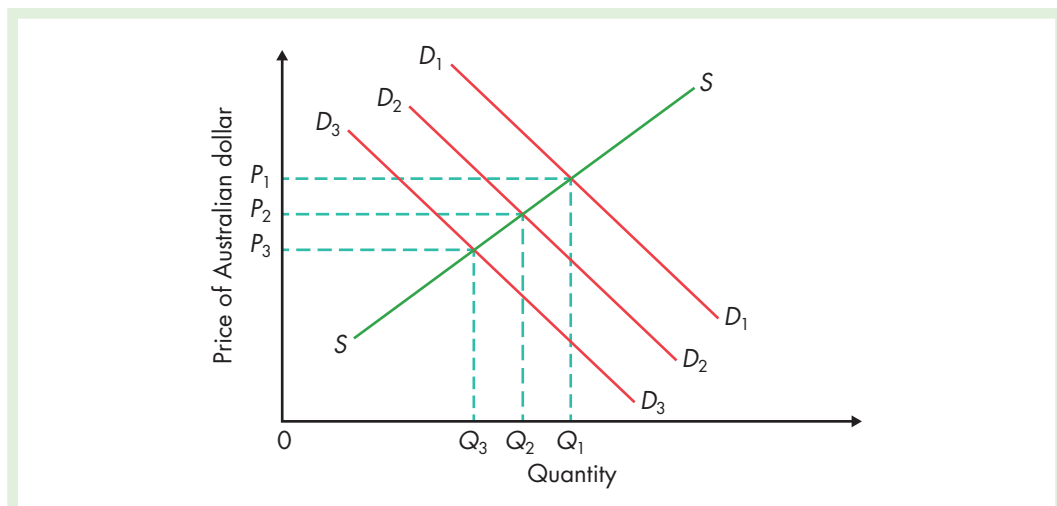
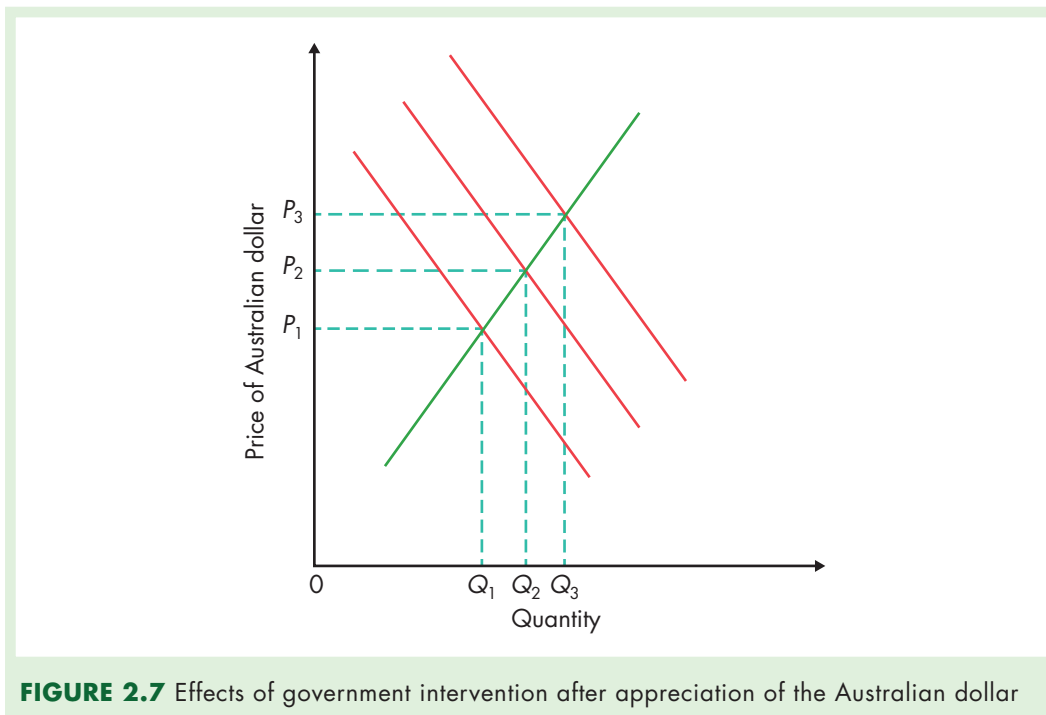


FIGURE 2.6 Effects of government intervention on the floating Australian dollar

If the Australian Government considers the dollar value to be too low, it can enter the foreign exchange market and buy Australian dollars, using its stock of foreign currencies or international reserves to do so. This changes demand, and the price increases to P_2 , a price that is above the market-determined price. Clearly, the government wishes to avoid the adverse effects on the domestic economy of a falling exchange rate – reduced investor confidence, higher inflation and the need for increased interest rates.

Similarly, Figure 2.7 shows the case where the dollar appreciates to a level considered too high, and the government sells Australian dollars in the marketplace, and increases its stock of foreign currencies.



2.4.1 Factors affecting demand for and supply of Australian dollars

Demand

- To buy Australian exports, purchasers must use Australian dollars. An increase in demand for Australian exports should result in an appreciation of the Australian dollar, as more overseas consumers demand more Australian dollars to pay for their purchases.
- Demand can be influenced by relative inflation rates (for example, if the Australian general price level is lower than that in other countries), a change in the relative income of consumers, or a movement in a trend for or against Australian goods and services.
- Australians earn money overseas in the form of dividends, profits and interest on loans. Moving this money back to Australia creates demand for Australian dollars.
- Capital inflows due to investment in Australia are largely determined by relative interest rates and investor confidence. An increase in domestic interest rates relative to overseas rates means investors are more likely to move their money to Australia, thereby creating an increase in demand for the Australian dollar.
- If speculators expect the Australian dollar to rise in value, they will buy more of it to profit from the appreciation, increasing demand.

Supply

- Demand for imports will lead to an increase in supply of Australian dollars in the market, as consumers change Australian dollars for foreign currency. Demand for imports is essentially determined by inflation rates in Australia relative to those overseas, changes in consumer preference and changes in relative incomes of Australian consumers.
- Australia must pay dividends, interest and profits to the foreign sector when foreign investments and loans are made in Australia. Moving this money overseas creates a supply of Australian dollars.
- Capital outflows due to investment overseas are largely determined by relative interest rates.
- Speculation in the foreign exchange market that the Australian dollar is about to depreciate relative to other currencies would lead to the cashing-in of Australian dollars for other currencies.

Figure 2.8 shows the factors that affect demand for, and supply of, the Australian dollar.

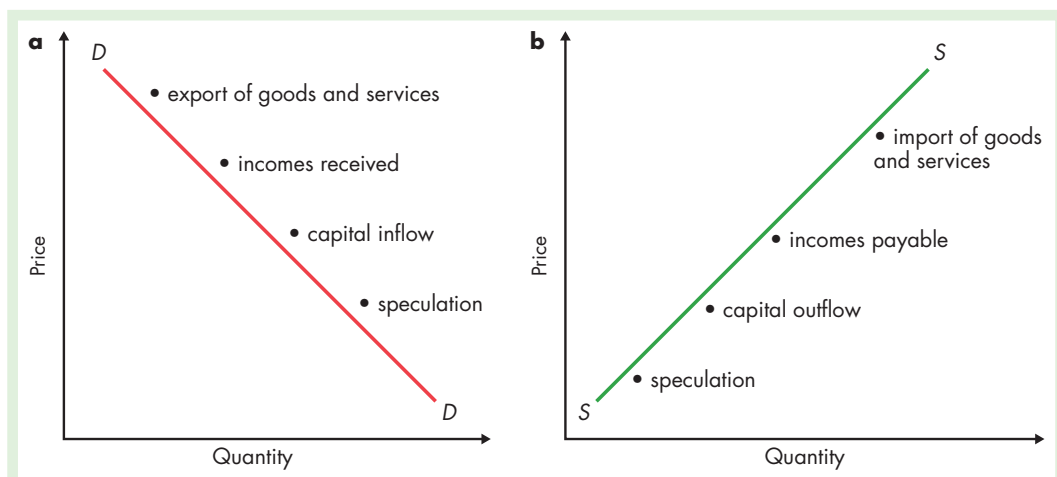


FIGURE 2.8 Factors affecting (a) the demand of and (b) the supply for Australian dollars

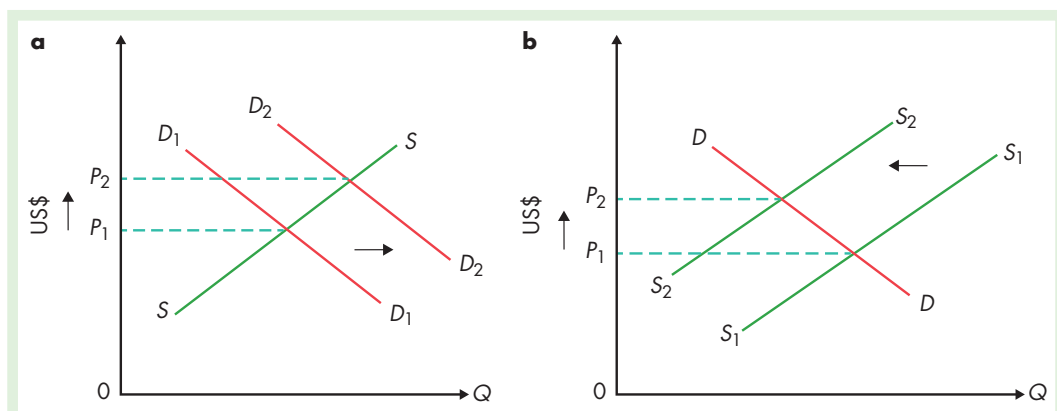


FIGURE 2.9 Appreciation of the Australian dollar due to changes in supply and demand: an increase in the demand for the Australian dollar in (a) from D_1 to D_2 will lead to an increase in the price of the Australian dollar in terms of the US dollar. Also, a decrease in the supply of the Australian dollar in (b) from S_1 to S_2 will lead to an appreciation of the value of the Australian dollar in terms of the US dollar.

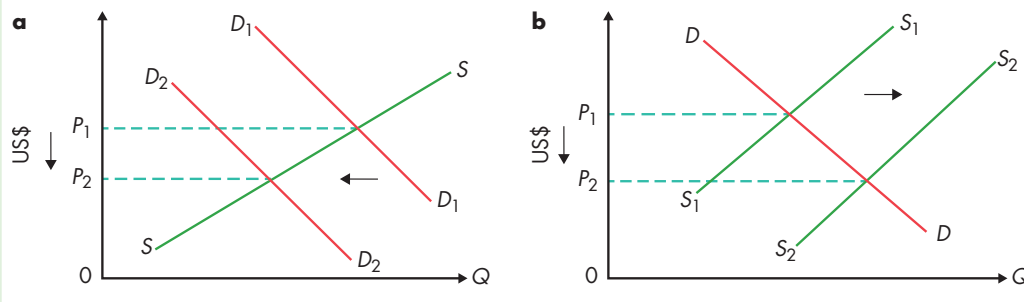


FIGURE 2.10 Depreciation of the Australian dollar due to changes in supply and demand: a decrease in the demand for the Australian dollar in (a) from D_1 to D_2 will result in a depreciation of the Australian dollar in terms of the US dollar. Similarly, in (b), an increase in the supply of the Australian dollar from S_1 to S_2 will result in a depreciation of the value of the Australian dollar in terms of the US dollar.

With the floating system, a nation's currency can be subtly depreciated or appreciated from day to day. Fluctuations can be minor and spontaneous.

FIGURE 2.11 Advantages and disadvantages of a floating exchange rate

Advantages	Disadvantages
• The balance of payments is always in equilibrium; i.e. the deficit in the current account is always equal to the surplus in the capital finance account. • Money supply is not affected by international exchanges, so domestic policy can operate independently of overseas exchange pressures. • It is not necessary for the RBA to hold large amounts of foreign reserves to maintain the artificial exchange levels at a fixed rate.	• The level of external debt can change when debt is largely measured in overseas currency, such as US dollars.

Perhaps the greatest disadvantage of the floating system is the uncertainty concerning the future movement in the value of a nation's currency. Because of the time lags involved in payments for international trade, businesses must insure against a possible loss of revenue because of changes in currency values.

CHECK FOR UNDERSTANDING 2.3

- Recall** the meaning of a floating exchange rate.
 - Using a demand and supply diagram, **explain** how a floating exchange rate is determined.
- What would be the result of a fall in the price of the Australian dollar?
- Using a diagram, show how the demand and supply for Australian dollars would be affected by each of the following:
 - an increase in US interest rates relative to Australian interest rates
 - an increase in Australian inbound tourism for a large event such as the World Cup in a sport
 - the signing of a free trade agreement between Australia and the UK.

2.5 How Australia's exchange rate is determined

CONCEPTS



Basket of currencies: a method for determining exchange rates that uses a selection (basket) of currencies in a managed exchange rate system instead of fixing the value of one currency to one other currency, thereby minimising the effects of any fluctuations

Trade-weighted index: an index that measures the value of the Australian dollar against a basket of currencies, weighted according to the significance of each country's trade relationship with Australia

KEY IDEA

The exchange rate reflects our international performance. Governments may seek to influence or control exchange rates through regulation and intervention in the market.

2.5.1 History of the Australian dollar

Pre-1971

Until December 1971, the value of the Australian currency was determined by the value of the pound sterling. (Note that until 14 February 1966, the official currency of Australia was the Australian pound; after that date it became the Australian dollar.) The exchange rate between the two currencies was fixed, so that if the value of the pound altered, so did the value of the Australian dollar. However, with mounting balance of payments problems facing the UK economy in the late 1960s, it became apparent to Australian monetary authorities that to continue the fixed link with sterling would impose undesirable pressures on the Australian dollar.

1971–74

Consequently, in December 1971, Australia turned to the US dollar to determine the value of its currency. This meant that the fixed link with the pound sterling was replaced by a fixed link with the US dollar. As the value of the US dollar fluctuated, so too did the value of the Australian dollar. This relationship survived until September 1974.

1974

By September 1974, the world had been shaken by the action of the Organization of the Petroleum Exporting Countries (OPEC) to boost the international price of oil. The USA, and in particular the US dollar, were severely affected by the move, and world trade slipped into its worst downturn since the Great Depression of the 1930s. Consequently, in September 1974, the Australian Government devalued the Australian dollar by 12 per cent and severed the fixed link with the US dollar.

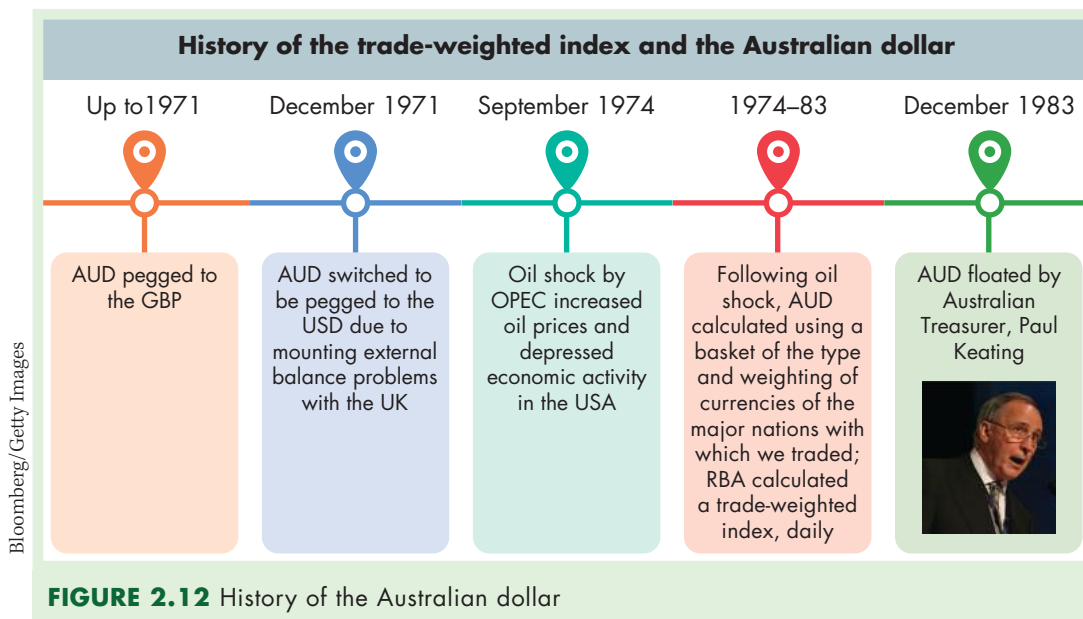
1974–83

Between 1974 and December 1983, the value of the Australian dollar was calculated on the basis of a number of currencies belonging to the major nations with which we traded. This collection of currencies was referred to as a **basket of currencies**. Every day, the RBA monitored the value of each of the currencies in the basket and compiled a **trade-weighted index** that reflected the significance of each country's trade with Australia. Each foreign currency in the basket was apportioned a weighting based on its country's overall trade with Australia (exports and imports), expressed as a percentage of Australia's total trade.

Linking the Australian dollar to a trade-weighted basket of currencies meant that the value of the dollar would tend to vary from day to day against all other currencies. However, because of the averaging effect of weighting, the fluctuations of the dollar against other individual currencies tended to be less extreme than if it were fixed to a single currency.

1983

In December 1983, the Australian Government announced the float of the Australian dollar. In essence, the announcement meant that market forces – that is, the forces of supply and demand – would determine the value of the dollar. The RBA was no longer responsible for setting the daily value of the Australian dollar. Previously, the RBA had been responsible for maintaining our foreign reserves, and trading banks were obliged to clear all foreign exchange transactions through the RBA at the conclusion of each day's trading. The RBA served the role of a net buyer and seller of foreign currency for the trading banks.



2.5.2 Role of the RBA in managing Australia's exchange rate system

Under the floating exchange rate system, the RBA has withdrawn from this role, and now the trading banks are permitted to maintain reserves of foreign currency within limits prescribed by the RBA. The RBA still retains its overall control of the Australian banking system and, in the event of a crisis involving foreign exchange, it would be expected to intervene.

While the RBA has a long-term impact on the value of the Australian dollar, it is also able to achieve short-term effects and to reduce the degree of change of the value of the dollar. The RBA may intervene by buying Australian dollars in the foreign exchange market to slow down a rapid depreciation. Alternatively, the RBA may sell Australian dollars to slow down an excessive appreciation of the currency. When the government or the RBA can intervene in the foreign exchange market to influence the value of the currency, it is said to be managing or 'dirtying' the float.

Management of exchange rates

The management of exchange rates by the RBA can affect the domestic money supply. For example, when intervening in the foreign exchange market to slow a depreciation (that is, buying Australian dollars), the money supply is reduced. To lessen the impact on the domestic economy, the RBA employs a process called 'sterilisation' to buy government securities and pump Australian dollars back into the money supply.

The RBA can also influence the value of the dollar indirectly by altering interest rates. By increasing Australian interest rates (monetary policy) relative to overseas interest rates, the RBA would encourage a larger than normal inflow of overseas savings into the foreign exchange market. This would result in an increased demand for Australian dollars and a consequent appreciation of the dollar.

Floating exchange rate system

Under the floating exchange rate system, each trading bank maintains its supply of foreign currencies. If this supply exceeds the acceptable limit, the bank is obliged to sell its surplus on the open market. As with any commodity, the price will rise or fall until the market is cleared. This is the essence of a floating exchange rate system.

Since the floating exchange rate was introduced, the changes in the level of the Australian dollar can be explained by a number of factors:

- speculation by investors
- the changes in the current account deficit for Australia
- the impact of domestic monetary and fiscal policy in Australia
- the long-term interest rate differential between Australia and its trading partners
- changes in the terms of trade
- trends in Australia's net overseas liabilities.

CHECK FOR UNDERSTANDING 2.4

- 1 **Describe** why the RBA would want to intervene in the market for Australian dollars.
- 2 **Recall** the difference between a clean float and a managed or 'dirty' float.
- 3 **Recall** which factors explain the changes in the level of the Australian dollar.
- 4 Use the RBA website to graph the trade-weighted index over the past 12 months. **Describe** any trends and suggest one possible reason for the movement.

ECONOMICS CHALLENGE



Exchange rates now vary on a daily (and sometimes hourly) basis. Figure 2.13 shows the value of the Australian dollar against the Japanese yen, the US dollar and the euro, and Figure 2.14 shows the movement of the Australian dollar. These graphs show the extent to which the Australian dollar moves in value over time.



Go to the current RBA Chart Pack to find the latest graphs for the exchange rates and the trade-weighted index.

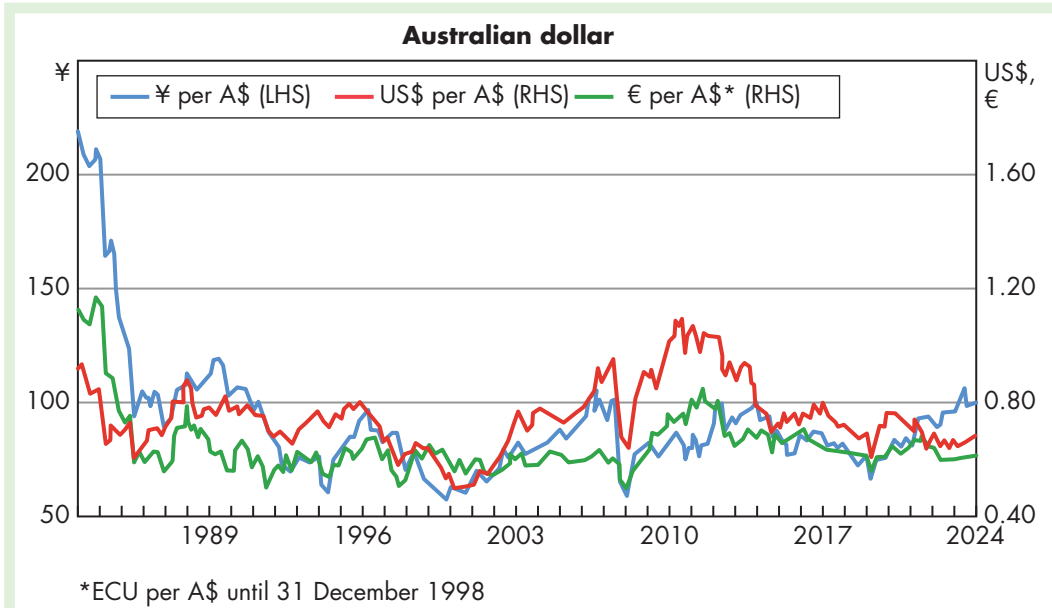


FIGURE 2.13 The Australian dollar against the yen, the US dollar and the euro

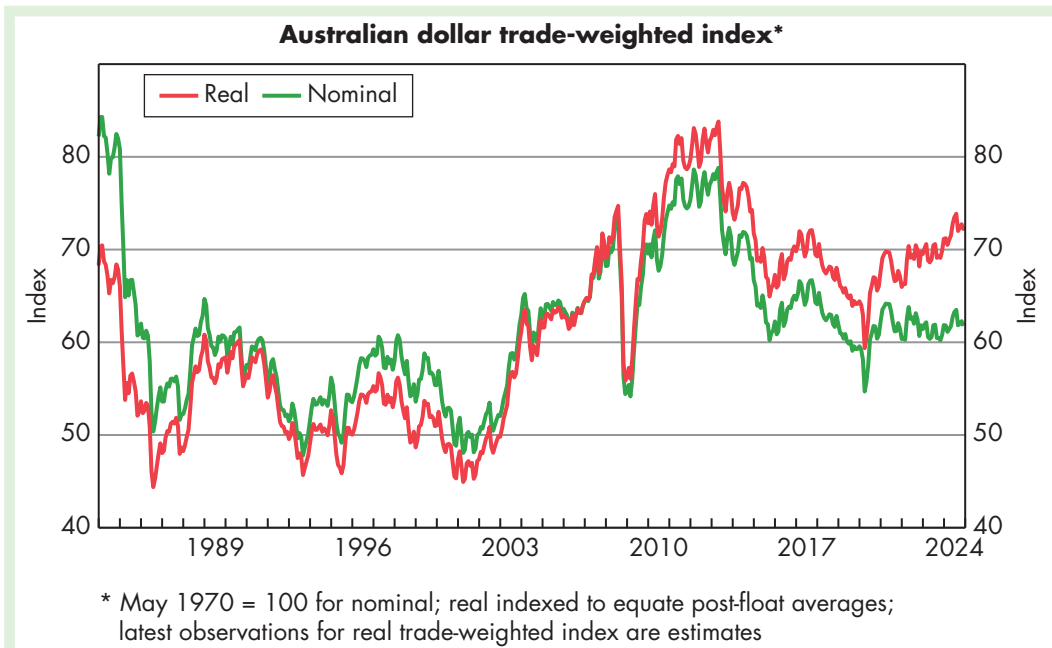


FIGURE 2.14 The movement of the Australian dollar

- 1 Research the movement in the value of the Australian dollar, and give reasons for the changes in values – in particular, the low value in September 2008 and 2019, and the peak in 2010.
- 2 To what extent do world events influence the value of the Australian dollar?
- 3 Do domestic events influence the value of the Australian dollar more than international events? **Explain** your answer.

Continued

Continued

- 4 What is the current value of the Australian dollar? Is the recent trend in the price of the dollar showing an appreciation or depreciation?
 - 5 What current events are causing the movements in the value of the Australian dollar?
 - 6 If you were an adviser to an investor, would you recommend that the investor buy or sell Australian dollars at the moment? Why?
 - 7 Economists use criteria to evaluate the impact of exchange rate changes on the economy. These criteria might include:
 - Efficiency – Are resources being used productively (for example, through trade)?
 - Equity – Who benefits: consumers or exporters? Who loses?
 - External stability – Will the current account or debt improve or worsen?
 - Employment in trade industries – What is the effect on jobs in export sectors?
- Evaluate** whether a sustained depreciation of the Australian dollar would be a good outcome for Australia. Use at least two criteria to support your evaluation.

2.6 Forward-exchange facilities

CONCEPTS



Exchange risk: the risk encountered by traders because of floating exchange rates

sale of commodities on a date specified in the future

Forward-exchange facilities: financial agreements that allow businesses or investors to lock in an exchange rate for a future date; they help manage the risk of currency fluctuations in international trade and investment

Hedge: a financial strategy used to reduce or manage risk by making an investment that offsets potential losses

Spot rate: the exchange rate quoted for a currency at a particular time

Futures market: the market in which contracts are written for the purchase or

Uncertainty with regard to future movements in the values of international currencies (as a result of the floating exchange rate system) presents a challenge to firms. In particular, because of time lags involved in finalising trade transactions, firms are always concerned with the possibility of sudden changes in currency values. They face what is usually referred to as an **exchange risk**. Unless a firm takes the precaution of insuring against exchange risk, or incorporating into sales contracts provisions that guard against exchange rate fluctuations, it stands to lose substantially if exchange rates fluctuate against its interests.

To offset the element of exchange risk in trade transactions, Australian trading banks offer **forward-exchange facilities**. This means that firms can enter into contracts with their banks to buy or sell a certain volume of foreign currency by some future specified date. The forward-exchange contracts are written in terms of a rate of exchange that is agreed to by both the bank and the firm at the time of signing the contract. Consequently, no matter what happens to currency values after a contract is signed, both parties to it must honour the terms of the contract at the time of settlement.

The forward-exchange facility offered by trading banks is closely supervised by the RBA. Each day, the RBA distributes to trading banks an Exchange Rates Schedule that lists both **spot rates**

and forward-exchange margins. The spot rate is the rate of exchange quoted to customers for the sale or purchase of foreign currency on the same day, as opposed to the forward-exchange margin, which attempts to account for future fluctuations. Forward-exchange facilities are offered at a cost to the entrepreneur. Since banks are in the business of making a profit, the forward-exchange rate for the purchase or sale of a volume of foreign currency is set accordingly.

By offering forward-exchange facilities, trading banks transfer the burden of exchange risk from firms to themselves. Because the forward-exchange facility is recognised as an official banking activity, the risks incurred by the trading banks are underwritten by the RBA.

The advent of floating exchange rates has also seen the growth of a **futures market** for most commonly traded commodities. The market allows traders to **hedge** against price changes, and gives them an opportunity to plan ahead and organise deliveries of commodities in advance.

2.7 The terms of trade

2.7.1 What are the terms of trade?

CONCEPTS



Export price index: a statistical measurement used by economists to produce an index number used to monitor fluctuations in export prices

Import price index: a statistical measurement used by economists to produce an index number used to monitor fluctuations in import prices

Price elasticity: a measure of how much the quantity demanded or supplied of a good changes in response to a change in price

Primary products: raw materials or natural resources that are extracted

Terms of trade: a statistical concept that highlights the relationship between export prices and import prices

Terms of trade index: a statistical measurement used by economists to produce an index number used to monitor price fluctuations

KEY IDEA

Economists are concerned with the movement in the terms of trade index from year to year.

The **terms of trade** relate to the relationship between the price of exports and the price of imports.

By exporting goods and services, a country gains some of the foreign currency it needs to purchase imports. If the price of exports rises and the price of imports remains stable or falls, then a fixed unit of export (for example, 1 tonne of wheat) will earn more foreign exchange than before, and this will make it possible to buy an increased quantity of imports. In this case, we say the country's terms of trade are favourable.

In the opposite situation, when the prices of exports are falling and import prices are stable or rising, the fixed unit of export (that is, 1 tonne of wheat) will purchase fewer imports than before because it will be earning less foreign exchange. The terms of trade for the country are then unfavourable.

Both import and export prices tend to vary over time as a result of the interaction of demand and supply and other forces. **Primary products**, in particular, tend to fluctuate in

price from year to year. This is usually a response to changes in supply associated with seasonal conditions, or changes in demand in response to economic conditions. For example, weaker demand for Chinese steel would reduce demand for coal and iron ore, thus lowering world prices.

Australia's exports, being mainly primary products, have tended to fluctuate considerably over time. There have been boom times for products such as wool, wheat, sugar, coal and iron ore, but they are often followed by a severe fall in prices.

Put simply, the terms of trade can be expressed as an equation:

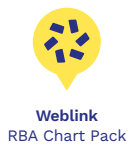
$$\text{Terms of trade} = \frac{\text{General level of export price}}{\text{General level of import price}}$$

A **terms of trade index** measures the change in the purchasing power of exports relative to imports, and is calculated by using the following formula:

$$\text{Terms of trade index} = \frac{\text{Export price index}}{\text{Import price index}} \times 100$$

The **export price index** shows the change in the weighted average of the prices of goods exported. The **import price index** shows the change in the weighted average of the prices of goods imported.

The terms of trade index also shows whether the relative movement in exports and imports is favourable or unfavourable.



ECONOMICS DATA



Visit the RBA Chart Pack. You will find data on the terms of trade in the 'Commodity prices' section. Find the updated terms of trade graph and **describe** whether it represents a favourable or unfavourable movement.

Australia's terms of trade have become more favourable since 2000, as seen in Figure 2.15. This is a reflection of the mining boom experienced since then.

Source: The Australian Economy and Financial Markets, RBA Chart Pack, February 2025. © Reserve Bank of Australia. Licensed under CC BY 4.0.

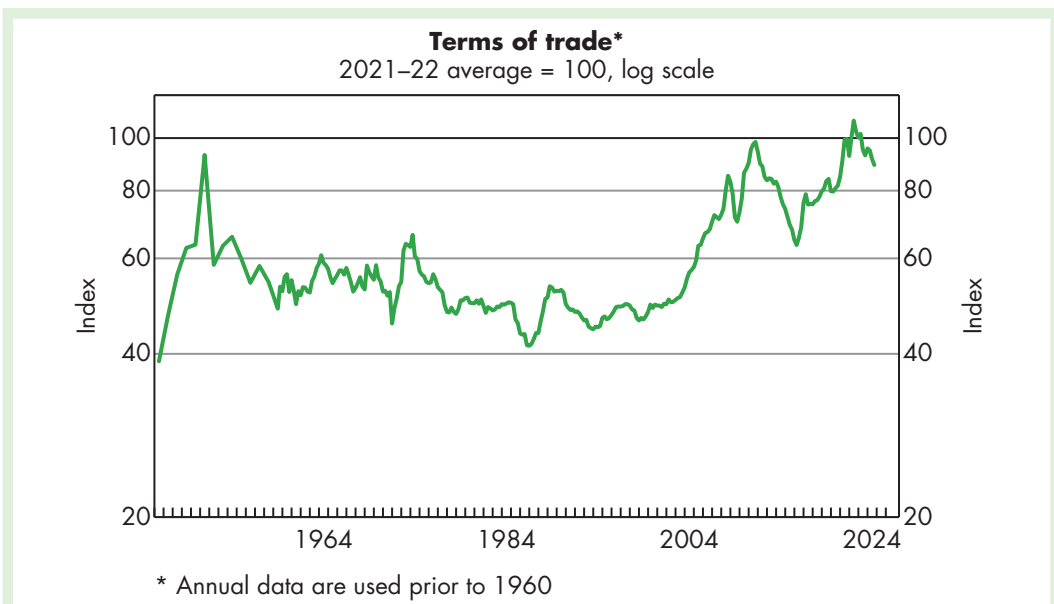


FIGURE 2.15 Australian terms of trade

Economists are mainly concerned with the movement in the terms of trade index from year to year; that is, the relative movement in import and export prices. If the terms of trade index falls, there is an unfavourable movement. If the terms of trade index rises, there is a favourable movement.

2.7.2 Effects of changes in the terms of trade

There is a close relationship between changes in the terms of trade and the balance on the current account (see Chapter 3). The value of exports or imports is found by calculating price multiplied by quantity. If a price decrease results in a larger proportional increase in the quantity of exports, then the result of the fall in the terms of trade may be an improvement in the value of exports and the balance on the current account. But when the fall in the terms of trade is large and there is no compensating increase in the volume exported, the current account deficit is increased.

The terms of trade can also have an effect the exchange rate. The exchange rate is likely to depreciate if there is a persistent decline in the terms of trade because of the effect of the current account deficit.

A persistent decline in the terms of trade also affects domestic prospects for employment and growth in export industries, and the economy generally. If the **price elasticity** of demand is such that the lower export prices result in an increased value of exports, while the higher import prices cause a fall in the value of imports, a minor or small decline in the terms of trade may result in an improved current account deficit. An improvement in the terms of trade will have the opposite effect.



iStock.com/Nuthawat Somsuk

FIGURE 2.16 The terms of trade are influenced by geopolitical trade wars.

CHECK FOR UNDERSTANDING 2.5

- 1 **Recall** when a country's terms of trade are favourable.
- 2 **Recall** when a country's terms of trade are unfavourable.
- 3 **Describe** why prices for imports and exports vary over time.
- 4 **Explain** why Australia has experienced favourable terms of trade since 2000.
- 5 **Describe** the relationship between the balance on the current account and changes in the terms of trade.
- 6 **Describe** how the exchange rate is affected by the terms of trade.
- 7 **Describe** how a decline in the terms of trade could affect employment in Australia.

2.8 Government policy and exchange rate movements

CONCEPTS



Allocative efficiency: where a country's productive resources are used in the economy in combinations that generate the maximum benefits for consumers and the nation

Dynamic efficiency: the ability of an economy to respond to changing consumer demands by reallocating resources to new industries or production processes

Inflation target: the band of inflation rates that a central bank sets as the target range for its implementation of monetary policy; in Australia, this is 2–3 per cent, on average, over the medium term

Monetary policy: measures implemented through the Reserve Bank of Australia to bring about changes in aggregate demand by influencing money supply and interest rates

KEY IDEA

Changes in the exchange rate can affect government policy. Governments need to ensure that economic policies are altered because of their influence on economic activity.

An appreciation or depreciation of the Australian dollar has a direct effect on the prices of goods and services in the domestic market. These effects can be almost immediate, and many Australians are used to them. For example, after a depreciation of the Australian dollar, we can expect the price of petroleum to rise virtually straight away. This is because Australia imports most of its petroleum from overseas, and depreciation means we need to use more Australian dollars to purchase it. This has an immediate effect in the marketplace, and the price of petroleum generally increases.

Apart from such immediate effects, an appreciation or depreciation can have a wider effect on economic activity, inflation and employment.

2.8.1 Exchange rates and the Australian economy

If the Australian dollar depreciates, overseas tourists will be encouraged to visit Australia, as they will receive more Australian dollars for their own currency. This means Australia will be a more attractive country to visit. Governments may need to adjust policies in terms of support for facilities such as resorts, increased flight numbers by overseas airlines and increased employment in the tourism industry.

The price of our exports affects the volume of our exports. If there is an appreciation, the volume of exports will fall, as our exports will become more expensive in the international marketplace. Similarly, if there is a depreciation, the volume of exports will rise, as our exports will become cheaper in the international marketplace.

Exchange rates affect the labour market

When an appreciation occurs, Australian goods become more expensive relative to overseas goods, and foreign firms will demand fewer of our goods and services. At the same time, imported goods and services will become less expensive in Australia. This means that a domestic producer competing against importers is less able to be competitive, and it is likely that there will be a loss of employment in the industry. Governments need to be aware of this; they should develop a set of policies to cope with the higher level of unemployment, and another set of policies to enable the domestic producer to be more internationally competitive.

Exchange rates affect inflation and interest rates

A depreciation in the value of the Australian dollar will have the effect of increasing the price of imports, placing inflationary pressure on the economy. At the same time, more domestic goods and services may be exported, resulting in an expansion of aggregate demand and increasing employment. This might increase production costs, which would mean higher prices for domestically produced goods, also resulting in inflationary pressure.

Should this occur, the government and the RBA, through **monetary policy**, may need to increase interest rates in order to stay within the **inflation target**.

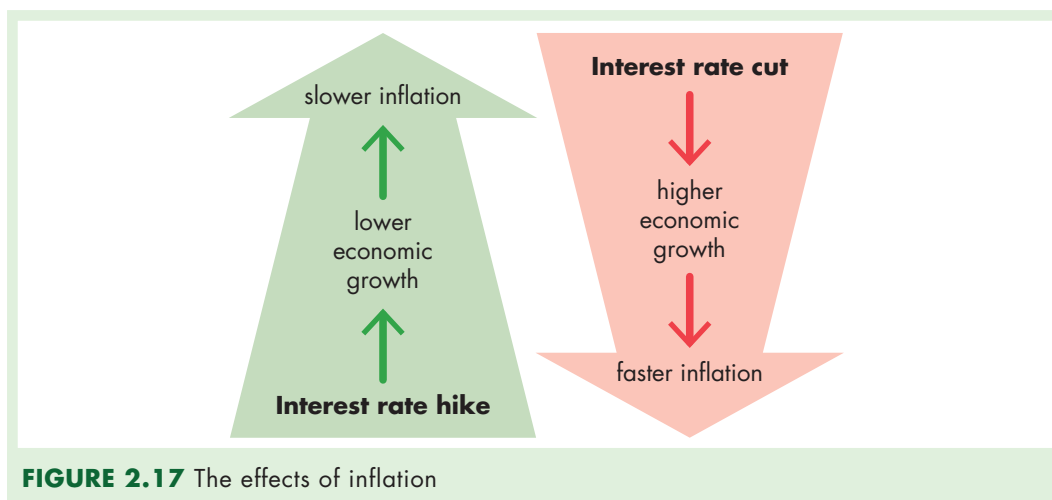


FIGURE 2.17 The effects of inflation

2.8.2 Effectiveness of government response

Government policy response to exchange rate movement needs to be evaluated using a number of criteria; for example:

- **The impact on employment in trade-exposed industries:** The government needs to minimise loss of employment at all times, and would wish to see job opportunities increased as a result of suitable policies designed to counter any job losses domestically.
- **Economic growth:** This is a sustained increase in the productive capacity of Australia over a specific period of time, usually one year. Any alteration to government policy must always consider economic growth, as continued growth will enhance employment and make Australia more competitive in the global economy.

- **Efficiency:** Efficiency refers to the ability of an economy to allocate and reallocate resources to maximise output with minimal waste.
 - **Allocative efficiency** occurs when a country's productive resources are used in combinations that generate the maximum benefits for consumers and the country.
 - **Dynamic efficiency** refers to the ability of an economy to respond to changing consumer demands by relocating resources to new industries or production processes.
- **Prices of imported goods and services:** Government policy should aim to reduce or minimise any increase in the prices of imported goods and services, to ensure that there will not be upward pressure on inflation in the economy.

ECONOMICS IN ACTION



Locate two or three articles that refer to major exchange rate movements (that is, where there has been a prolonged appreciation or depreciation of the Australian dollar) and their impact on the Australian economy.

Indicate what actions the Australian Government took or could have taken in this situation and, using the criteria set out above, **evaluate** the adequacy of the government action.

ECONOMICS IN ACTION



Use the RBA website to collect daily AUD/USD exchange rates for the past 30 days.

- 1 Graph the trend.
- 2 **Identify** any sharp movements.
- 3 Research and suggest two events (for example, interest rate announcements, inflation data) that may have influenced the currency during this period.

R 2.1 Terminology

Select the correct term from the list below that describes each statement.

A Currency appreciation	E Trade-weighted index	I Currency depreciation
B Exchange risk	F Spot rate	J Foreign exchange (forex) market
C Terms of trade index	G Futures market	
D Exchange rate	H Terms of trade	

- 1 The market in which contracts are written for the purchase or sale of commodities on a date specified in the future
- 2 A decrease in the value of a currency relative to other currencies under a floating exchange regime
- 3 An index that measures the value of the Australian dollar against a basket of currencies, weighted according to the significance of each country's trade relationship with Australia
- 4 The value of the currency of a nation expressed in terms of the currency of another nation
- 5 The exchange rate quoted for a currency at a particular time
- 6 A statistical concept that highlights the relationship between export prices and import prices
- 7 An increase in the value of a currency relative to other currencies under a floating exchange regime
- 8 The risk encountered by traders because of floating exchange rates
- 9 A market where international currencies are bought and sold
- 10 A statistical measurement used by economists to produce an index number used to monitor price fluctuations

R 2.2 Multiple-choice questions

Select the correct response to each of the following:

- 1 If the Australian dollar were depreciated by 10 per cent, which one of the following would *not* be true?
 - A** Imported Japanese motor vehicles would cost more in the Australian market.
 - B** Imported Japanese motor vehicles would cost less in the Australian market.
 - C** Japanese buyers would pay less for Australian wool.
 - D** Australian consumers would be encouraged to buy locally manufactured goods.
- 2 An improvement in Australia's terms of trade is said to occur when:
 - A** the general level of export prices decreases relative to the general level of import prices.
 - B** the general level of export prices increases relative to the general level of import prices.
 - C** there is a decline in the terms of trade index.
 - D** the terms of trade index remains constant.

Review of Chapter 2

- 3 The rate of exchange:
 - A measures the relationship between the prices of imports and the prices of exports.
 - B is the rate at which the composition of Australia's trade is changing.
 - C is the number of units of a foreign currency that can be purchased with an Australian dollar.
 - D is the quantity of foreign exchange that Australian banks hold.
- 4 Under Australia's floating exchange rate system, the Reserve Bank of Australia acts in the foreign exchange market to:
 - A encourage speculation in the Australian dollar.
 - B prevent excessive movements in the value of the Australian dollar.
 - C fix the value of the Australian dollar.
 - D achieve a target exchange rate.
- 5 An appreciation of the exchange rate of the Australian dollar means that:
 - A more Australian dollars are needed to buy one US dollar.
 - B one Australian dollar can buy more US dollars.
 - C the Australian dollar has been devalued.
 - D there has been a fall in the trade-weighted index.
- 6 Which of the following is a likely effect of an appreciation of the Australian dollar?
 - A Increase the value of foreign currency in terms of the Australian dollar.
 - B Make Australian exports more expensive for foreign buyers.
 - C Lower the value of Australian dollar holdings in foreign reserves.
 - D Reduce the purchasing power of Australians when traveling overseas.
- 7 Which of the following will occur if the Reserve Bank of Australia increases domestic interest rates?
 - A increased financial inflows leading to an appreciation
 - B decreased financial inflows leading to a depreciation
 - C decreased financial inflows leading to an appreciation
 - D increased financial inflows leading to a depreciation
- 8 Australia's exchange rate is described as:
 - A a fixed system.
 - B a flexible system.
 - C a free floating system.
 - D a managed floating system.
- 9 Which of the following increases the demand for Australian dollars on the foreign exchange market?
 - A Australian imports of goods and services
 - B interest and dividend payments to US firms
 - C purchases of military equipment overseas by the Australian Government
 - D interest and dividend payments from overseas to Australian firms

- 10 A change in the value of the Australian dollar from US\$0.75 to US\$0.85 represents:
- A an appreciation of the Australian dollar.
 - B a depreciation of the Australian dollar.
 - C a devaluation of the Australian dollar.
 - D an appreciation of the US dollar.
- 11 Everything else being equal, for products priced in Australian dollars, a fall in the exchange rate value of the Australian dollar:
- A will raise the price of imported goods and services in Australian dollars in Australia.
 - B will lower the price of exports from Australia in Australian dollar terms.
 - C will lower the price of exports from Australia in both Australian dollar and local currency terms.
 - D will lower the price of imported goods and services in Australia in both Australian dollar and overseas currency terms.
- 12 Everything else being equal, a rise in the sale of exports to Asia would be reflected in:
- A a fall in the value of the Australian dollar.
 - B an equal inflow of capital from Asia.
 - C a rise in the foreign exchange value of the Australian dollar.
 - D a rise in interest rates in Australia.
- 13 Under a system of floating exchange rates, a shift to the right in the demand curve for the Australian dollar will:
- A ultimately cause Australian exports to increase and its imports to fall.
 - B cause the Australian dollar to appreciate.
 - C cause other currencies to appreciate.
 - D cause the Australian dollar to depreciate.
- 14 The Reserve Bank of Australia can increase the level of the Australian dollar by:
- A reducing interest rates in the Australian economy.
 - B increasing the level of government expenditure.
 - C buying Australian dollars on the foreign exchange market.
 - D reducing the level of lending of domestic banks.

R 2.3 Short response questions

- 1 **Explain** the meaning of a floating exchange rate. What is the difference between a clean float and a managed or 'dirty' float?
- 2 **Explain** with the use of diagrams how a floating exchange rate is determined.
- 3 **Recall** factors that may cause the exchange rate to depreciate.
- 4 Under a floating exchange rate, what can the Reserve Bank of Australia do to slow down or prevent a depreciation of the Australian dollar?
- 5 What happens to the international competitiveness of Australian industry when the exchange rate rises? What impact might a rise in the exchange rate have, therefore, on the structure of the Australian economy?
- 6 **Describe** how the exchange rate is affected by changes in commodity prices.

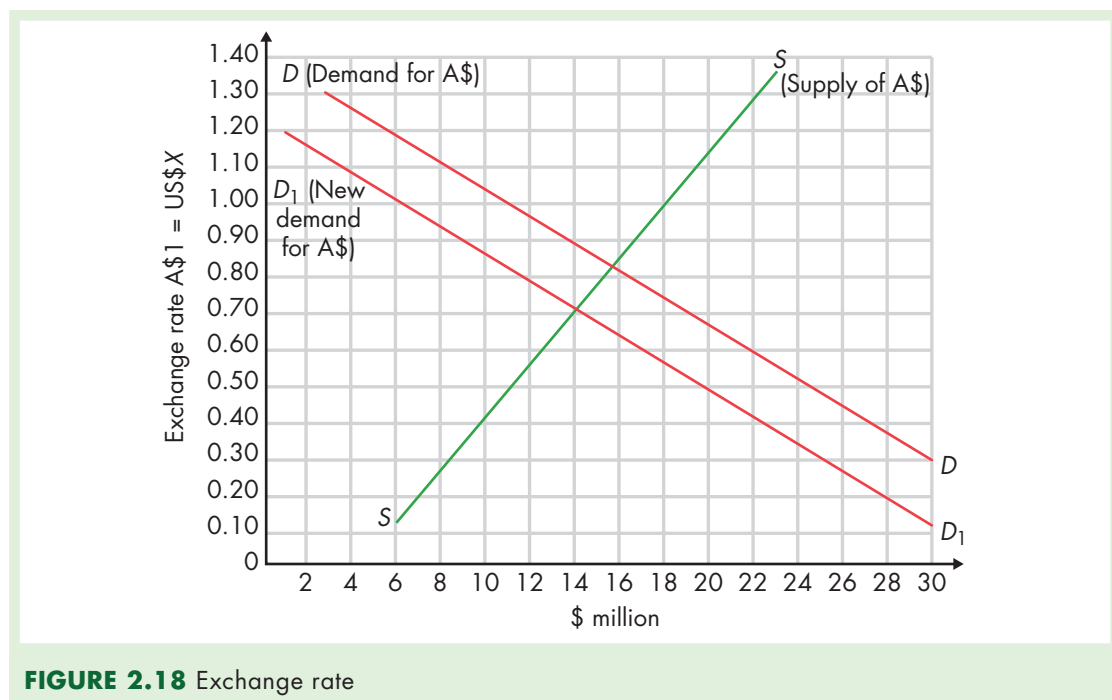
Review of Chapter 2

- 7 Suggest how fluctuations in the domestic interest rates would affect the value of the Australian dollar.
- 8 **Describe** what might be the likely effect on Australia's exchange rate of an increase in interest rates in the rest of the world.
- 9 What might cause a decline in the exchange rate for the Australian dollar? What effects might such a decline have on the relative volume of exports and imports?
- 10 **Explain** the effects a fall in interest rates in the USA might have on the Australian dollar.

R 2.4 Activities

- 1 Imagine you are an importer of Japanese television sets. You have negotiated a price with your supplier for 100 television sets at ¥54 000 per set.
 - a If the current exchange rate is A\$1 = ¥250, how much will you pay the supplier for 100 television sets, expressed in Australian dollars?
 - b Suppose the Australian dollar appreciates by 10 per cent against the Japanese yen.
 - i What will the new exchange rate be?
 - ii How much, expressed in Australian dollars, will you now be required to pay for 100 television sets (rounded to the nearest dollar)?
- 2 Given the following figures, **calculate** the terms of trade.
 - a Export price index 220
Import price index 200
 - b Export price index 174.5
Import price index 193.2

Questions 3 and 4 relate to Figure 2.18.



- 3 a If the exchange rate was fully floating, what would the initial US\$ to A\$ exchange rate be?
- b Why are more Australian dollars demanded at A\$1 = US\$0.50 than at A\$1 = US\$0.60?
- c Why are fewer Australian dollars supplied at A\$1 = US\$0.50 than at A\$1 = US\$0.60?
- 4 D_1 represents an autonomous demand for Australian dollars.
- a As a result of this, what is the new US\$ to A\$ exchange rate?
- b Which of the following could *not* have contributed to the decrease in demand for the Australian dollar?
- i a decrease in Australian exports of wool
 - ii an increase in imports of Japanese motor vehicles
 - iii a decrease in foreign tourists visiting Australia
 - iv a fall in US investment in Australia
- 5 Using Figure 2.19, **calculate** the terms of trade index for Ozland. In which year/s did Ozland experience a favourable movement in its terms of trade?

FIGURE 2.19 Ozland terms of trade

Year	Export price index	Import price index	Terms of trade index
Year 1	100	100	
Year 2	120	80	
Year 3	150	120	
Year 4	160	160	
Year 5	140	210	
Year 6	130	90	

- 6 Everything else being equal, what effect will the following events have on the value of the Australian dollar? Illustrate each event with a demand and supply diagram.
- a an increase in export sales from Australia
 - b a fall in purchase of imports by Australians
 - c a fall in investment from overseas in Australia
 - d a move by the Reserve Bank of Australia to use its reserves to buy up Australian dollars on the foreign exchange market
 - e a decline in overseas aid provided by the Australian Government

R 2.5 Investigation – research topics

- 1 To what extent have the market forces of supply and demand been responsible for recent changes in Australia's exchange rate? **Analyse** recent exchange rate data, and attempt to match the data to media releases and Treasury statements related to Australian and world events.
- 2 Select two examples of recent movements in the exchange rate for the Australian dollar. For each one, research the reasons behind the movement and **evaluate** effects of the movement, using two perspectives.

Economics in Action worksheets:

- 2.1 Exchange rates
- 2.2 Hypothetical currency exchange rates

 Nelson MindTap

To access resources above, visit
cengage.com.au/nelsonmindtap





Ronniechua/Adobe Stock Photos

3

The balance of payments

A country's balance of payments is a record of its international transactions. This chapter analyses these transactions, as well as policies that can be implemented to control balance of payments difficulties. Foreign debt and foreign investment are examined as two issues the government must deal with.

Focus questions and inquiries

- What is the balance of payments?
- What are the causes and effects of current account trends?
- What are the causes and effects of capital account trends?
- What is the significance of foreign debt and foreign investment?

This chapter will examine:

- how international transactions are recorded
- the recent trends in Australia's balance of payments
- the causes of such trends and their effects
- the specific groups in the economy that are affected by movements in the balance of payments
- why Australia has foreign debt
- whether foreign investment is beneficial to Australia.

3.1 What is the balance of payments?

CONCEPTS



Balance of payments: the summary of a nation's payments to, and receipts from, the rest of the world over a year; it divides transactions into two broad accounts: the current account, and the combined capital and financial account. The current account captures the net flow of money that results from Australia engaging in international trade, while the combined capital and financial account captures Australia's net change in ownership of assets and liabilities; these two broad accounts are often referred to as the 'two sides' of the balance of payments

Balance of trade: the difference between the value of exports and imports

Capital account: a record that includes capital transfers and the acquisition/disposal of non-produced, non-financial assets between residents and non-residents

Capital and financial account: the record of the movement of capital funds between a nation and the rest of the world; made up of two sub-accounts: the capital account and the financial account

Credits: payments received by a nation from the rest of the world

Current account: the record of day-to-day financial transactions involving the trade of goods and services between a nation and the rest of the world

Current account deficit: the amount by which credits in the current account are less than debits

Current account surplus: the amount by which credits in the current account are greater than debits

Debits: payments by a nation to the rest of the world

Financial account: a record that shows the inflows (credits) and outflows (debits) of debt and equity relating to Australia's external liabilities

Reserve assets: foreign currency, gold and other highly liquid assets held by a country's central bank to manage exchange rates, support the economy and stabilise the financial system

KEY IDEA

The balance of payments is an accounting record of a country's international economic transactions. It provides information from which the relationship between the domestic and external sectors of the economy can be derived and analysed.

A nation uses its balance of payments to track its overseas transactions and develop appropriate external policies.

Just like a household tracks its income and spending, nations monitor their exports and imports to ensure economic balance. If income exceeds spending for a period of time, there will be an accumulation of savings. On the other hand, if spending exceeds income, savings will be depleted and the household may need to resort to borrowing to fund its activities.

In much the same way, nations can accumulate foreign reserves or find themselves in need of borrowing additional foreign reserves. Floating exchange rates, different currencies, and intervention by governments and central banks complicate the situation.

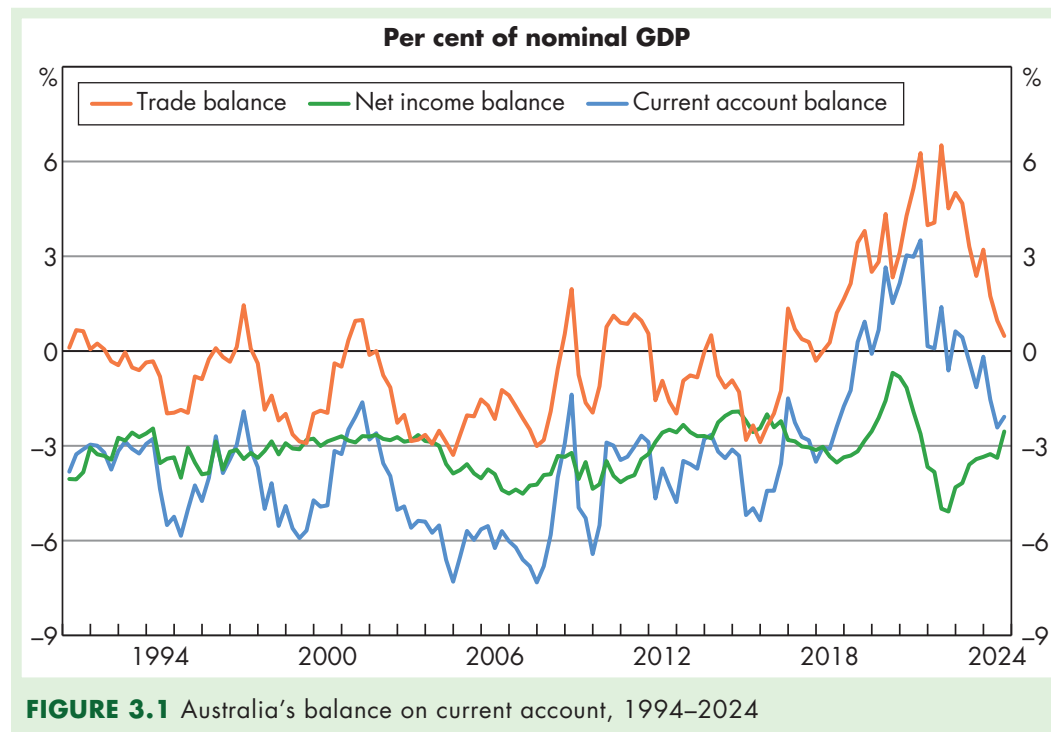
As we can see from the circular flow of income model (see Chapter 1), the sectors within our domestic economy undertake daily transactions that ultimately lead to interaction with the external sector.

Apart from payments for traded goods, there are numerous other transactions that give rise to international monetary movements. These are all summarised in the **balance of payments**.

In order to monitor the flow of financial transactions between Australia and the rest of the world, the Australian Bureau of Statistics divides the balance of payments into two accounts: the current account and the capital and financial account.

3.1.1 Current account

The **current account** includes day-to-day transactions for which payments are made or received. Australia's recent current account history is shown in Figure 3.1.



The items within the current account can be categorised under four headings:

- 1 **Goods:** These are the 'visible' commodities that Australian producers sell to the rest of the world (exports; for example, wine, coal and wheat) and those that Australian importers buy from overseas producers (imports; for example, motor vehicles, electrical goods and chemicals). The **balance of trade** is the difference between the value of imports and the value of exports.
- 2 **Services:** These have been traditionally referred to as 'invisibles' because they represent transactions in which no visible item changes hands. The best example for this category is the enormous cost of shipping that must be met by Australians each year. Virtually all commodities shipped to and from Australia are carried by foreign vessels. Other examples include tourism, education, insurance and finance.

- 3 **Net primary income:** Foreign investors derive income in the form of interest, dividends and royalties from their investments in Australia. This outflow of income appears as a debit in the current account. At the same time, Australians receive various forms of income from activities overseas. This inflow of income appears as a credit on the current account.
- 4 **Net current transfers:** These are movements of funds for which there is no reciprocal activity; for example, assets transferred by migrants, foreign aid, payment to international organisations such as the United Nations, and insurance payments.



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of Statistics

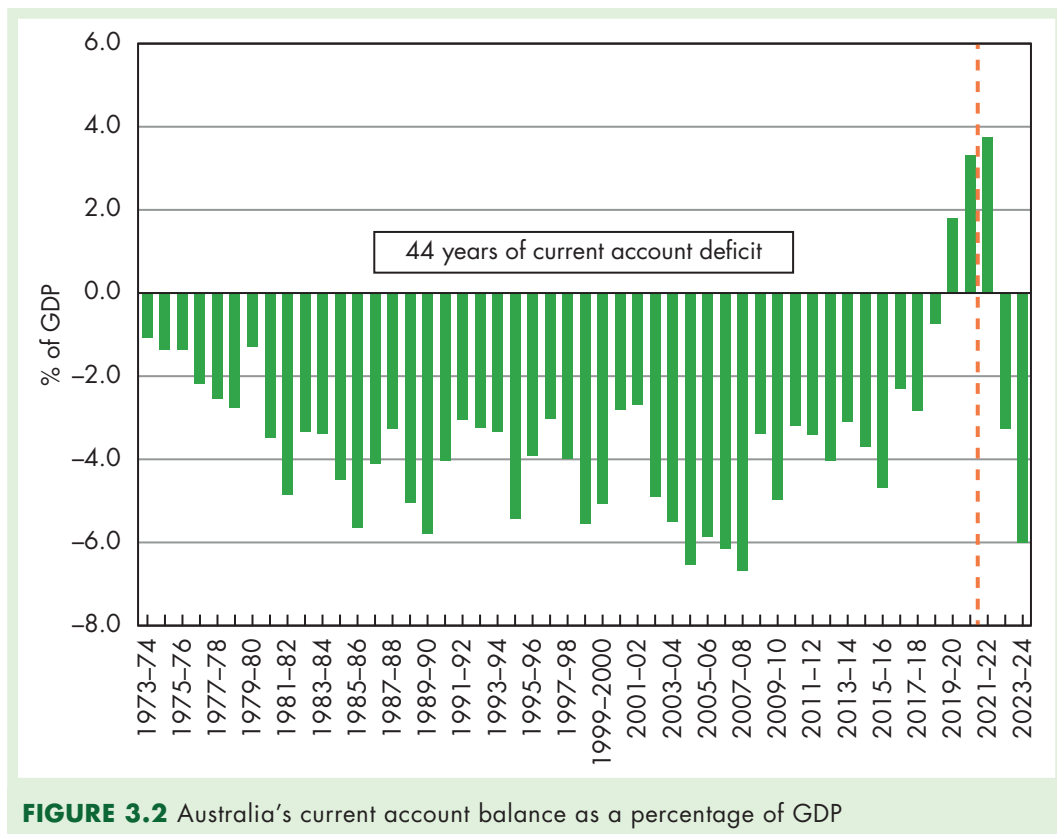
Reserve Bank
of Australia

ECONOMICS DATA



Use either the Australian Bureau of Statistics website or the Reserve Bank of Australia (RBA) website to locate the most recent statistical or graphic data showing Australia's current account balance.

Economists often measure the balance of payments figures as a percentage of GDP to enable comparisons to be made with previous years, and to evaluate the impact the external sector has on our economy. Figure 3.2 shows the current account balance as a percentage of GDP from 1973 to 2024.



Source: Australian Bureau of Statistics. Australian Bureau of Statistics (previously Cat. No. 5302.0). Forecast data from 2021-22 to 2023-24 is taken from Budget Strategy and Outlook: Budget Paper No. 1: 2022-23, p. 37.

FIGURE 3.2 Australia's current account balance as a percentage of GDP

ECONOMICS DATA



Use either the Australian Bureau of Statistics website or the RBA website to locate the most recent statistical data showing the Australian current account balance as a percentage of GDP.



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Australian Bureau
of Statistics

Reserve Bank
of Australia

3.1.2 Capital and financial account

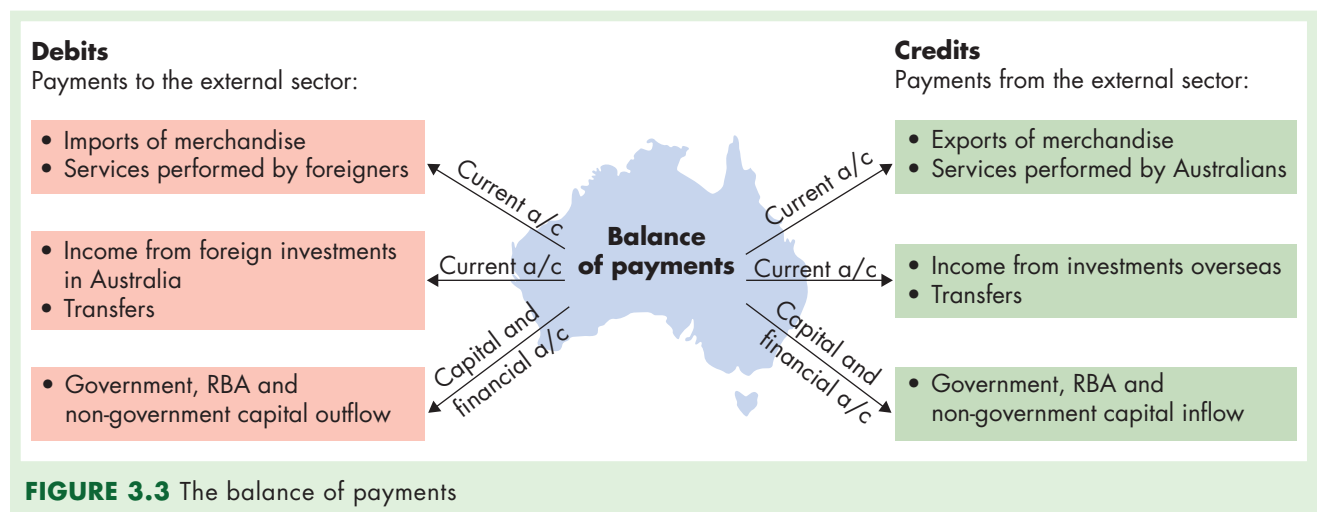
The **capital and financial account** includes the movement of capital funds between Australia and the rest of the world during a specified period of time. The funds are divided into three main categories:

- **Capital account:** This includes items classified as capital transfers of foreign aid and net capital brought into Australia by migrants.
- **Financial account:** This is divided into direct and portfolio investment categories, and records Australian investment abroad as well as foreign investment in Australia. Each form of investment is divided into debt and equity sub-classifications.
- **Reserve assets:** This refers to actions by the RBA in dealing with foreign currencies, plus government obligations with respect to the International Monetary Fund (IMF).

Errors and omissions include statistical errors and adjustments that enable the capital and financial account to balance the current account.

A capital and financial account deficit is the amount by which credits in the capital and financial account are less than debits, while a capital and financial account surplus is the amount by which credits in the capital and financial account are greater than debits.

Figure 3.3 shows that all payments made by the Australian economy to the rest of the world are **debits** to the Australian economy. On the other hand, all funds received from the rest of the world are considered **credits** to the Australian economy. The Australian Bureau of Statistics monitors the flow of funds on behalf of the government. In theory, with a floating exchange rate, any imbalance in the balance of payments will be corrected by a change in the exchange rate, thereby ensuring that the balance of payments will always balance.



The aim of the accounting procedure is to offset any deficit with an equivalent surplus. For instance, as Figure 3.4 shows, a **current account deficit** is offset by an equivalent surplus on the capital account to give the balance of payments. Likewise, a **current account surplus** would be offset by a deficit on the capital account. Movement of funds through the capital and financial account can achieve fine-tuning of the balance of payments.

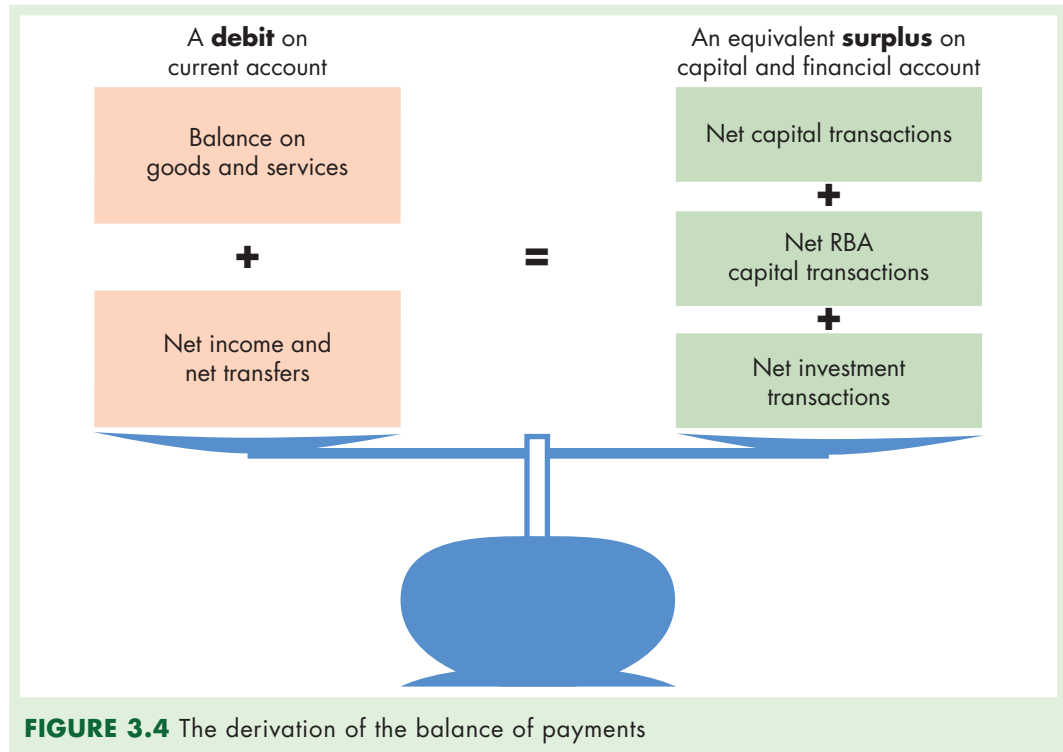
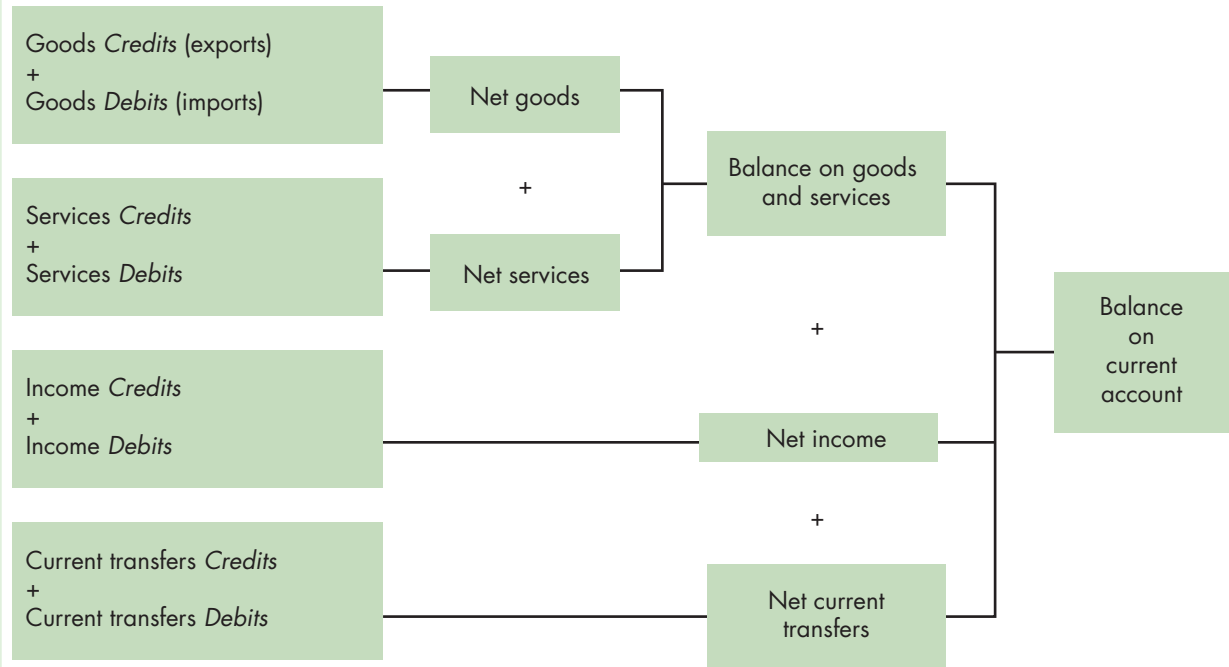


Figure 3.5 on the following page outlines the procedure used for deriving the balance of payments and details the balance of payments in the current account and capital and financial account.

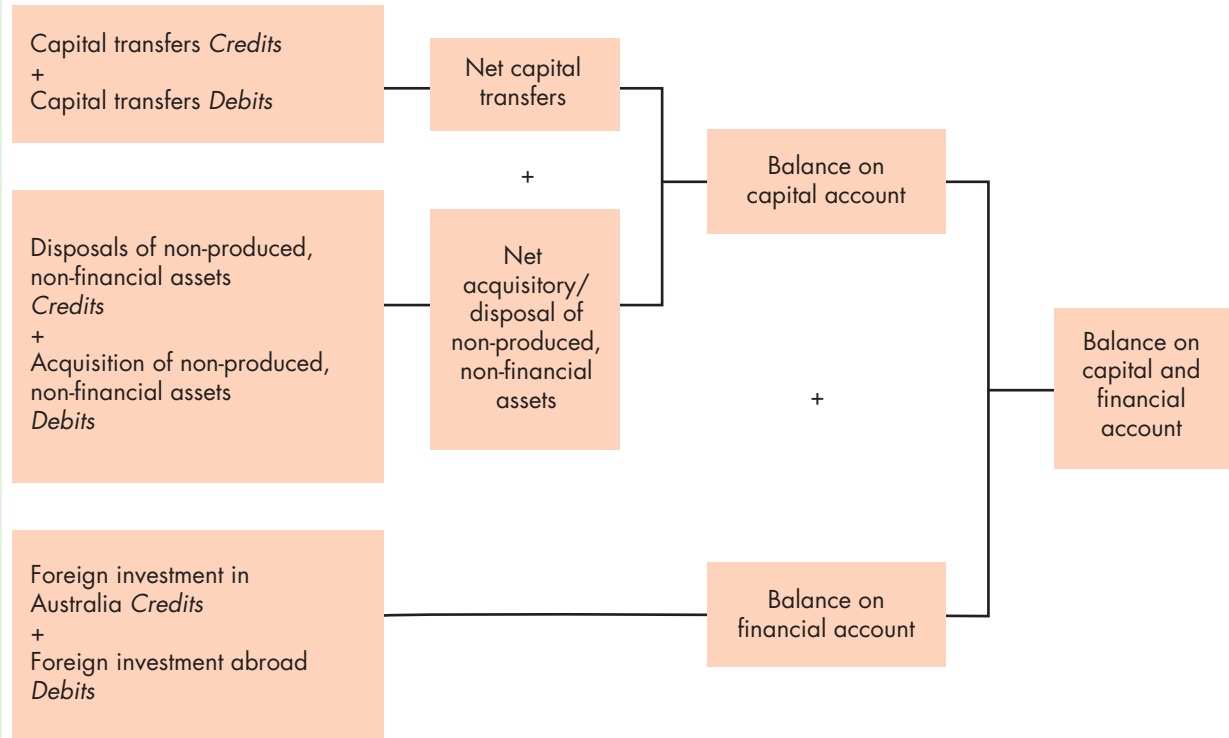
CHECK FOR UNDERSTANDING 3.1

- 1 **Recall** what is meant by the balance of payments.
- 2 **Describe** how the balance on current account is calculated.
- 3 **Describe** how the balance on capital and financial account is calculated.
- 4 **Describe** how a current account deficit is balanced by a current account surplus.

Current account



Capital and financial account



Source: ABS

FIGURE 3.5 The balance of payments in the current account and capital and financial account

ECONOMICS IN ACTION



- 1 Refer to Figures 3.6 and 3.7.
 - a What are the trends in Australia's levels of exports and imports, and Australia's international trade in goods and services?
 - b Hypothesise reasons for variations in the trends/patterns.
 - c **Select** at least one category of data and conduct research to test your hypothesis.

Source: The Australian Economy and Financial Markets, RBA Chart Pack, February 2025. © Reserve Bank of Australia. Licensed under CC BY 4.0.

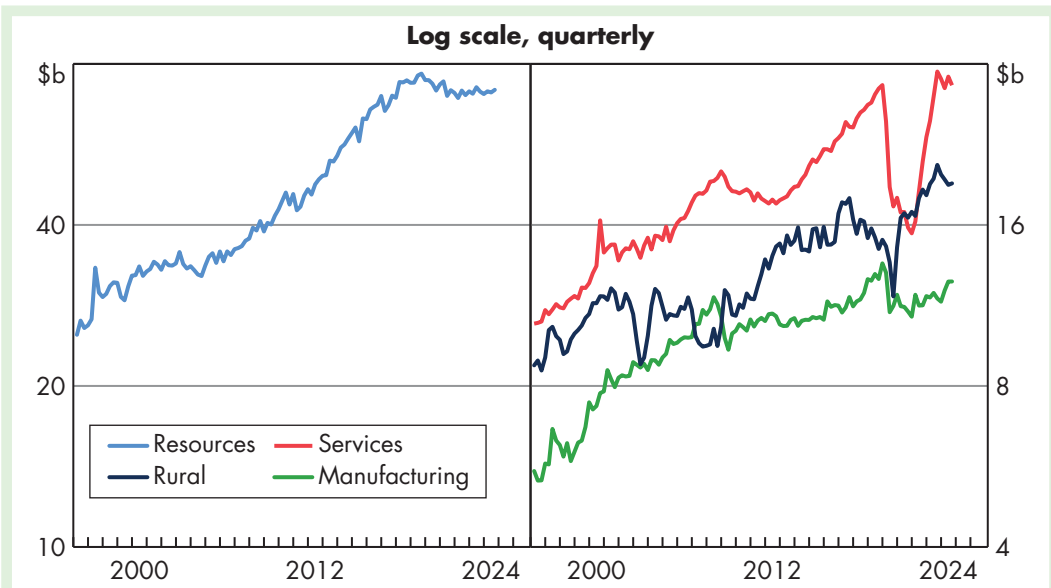


FIGURE 3.6 Australia's export volumes

Source: The Australian Economy and Financial Markets, RBA Chart Pack, February 2025. © Reserve Bank of Australia. Licensed under CC BY 4.0.

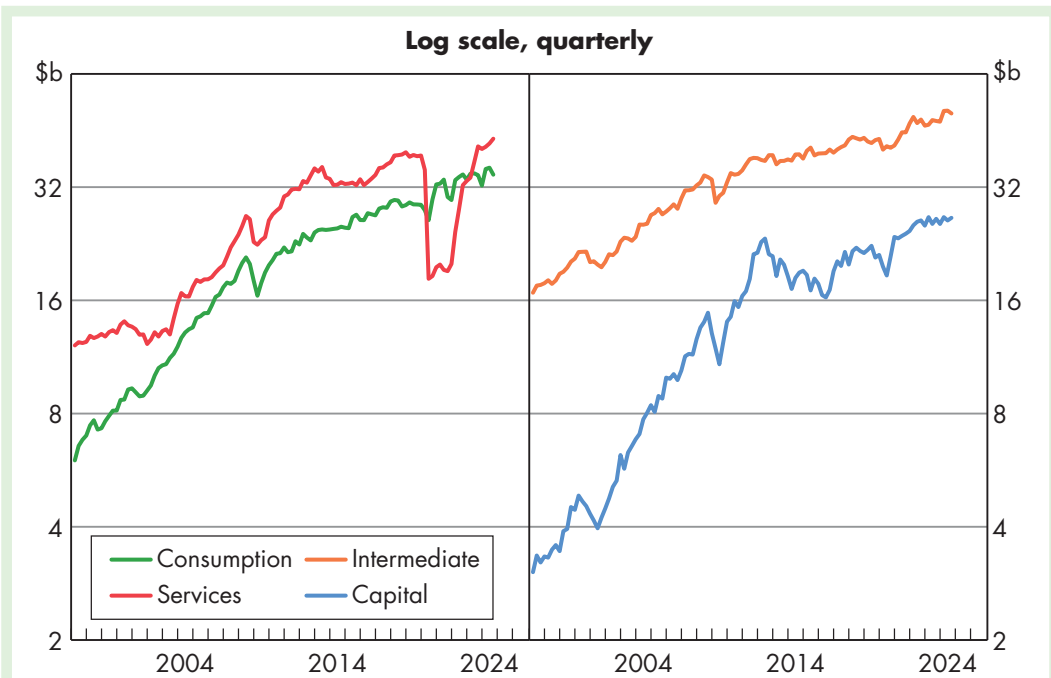
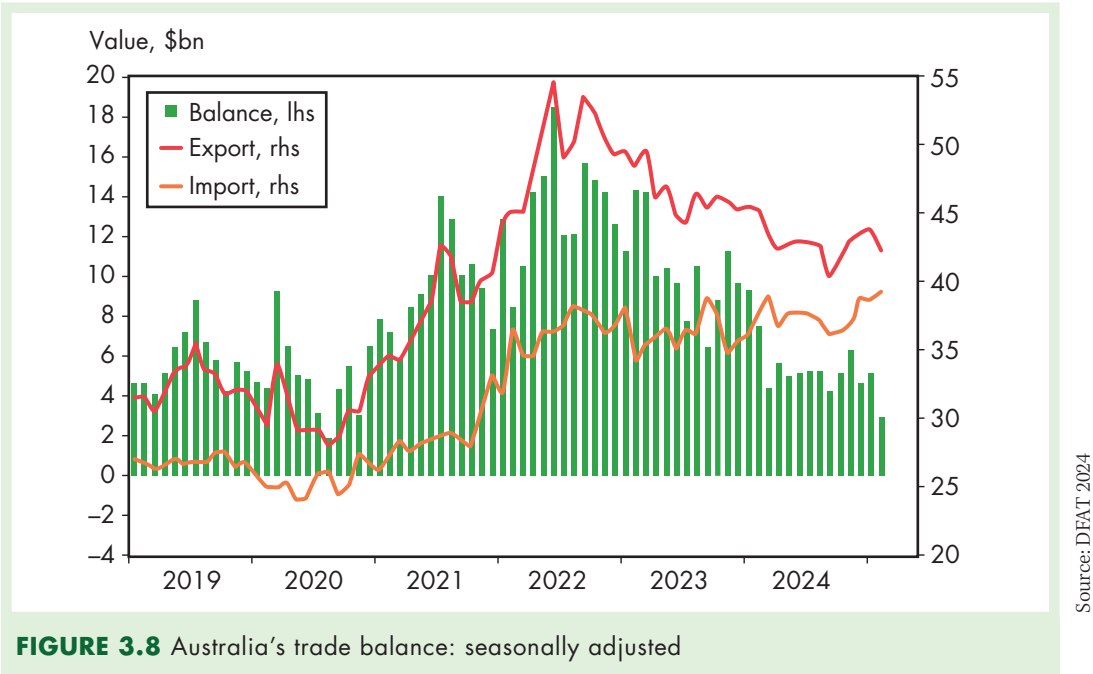


FIGURE 3.7 Australia's import volumes

Continued

Continued

2 Refer to Figure 3.8. **Describe** the trend in Australia’s trade balance.



3 Refer to Figure 3.9. To what extent do the changes in commodity prices explain the trends in exports, imports and balance on goods and services?



3.2 Balance of payments and the economy

CONCEPTS



External policy: measures undertaken by governments to influence activity in the current account or the capital account

Fiscal policy: measures undertaken by governments in relation to raising revenue through taxation and determining the nature of government expenditure, aimed at influencing a nation's aggregate demand; can be discretionary or non-discretionary (automatic stabilisers)

Macroeconomic strategy: measures undertaken by governments to influence

broad variables in the economy, such as consumption or investment

Microeconomic strategy: measures undertaken by governments that focus on the operation of single decision-making units within the economy, such as the firm or the household

Monetary policy: measures implemented through the Reserve Bank of Australia to bring about changes in aggregate demand by influencing money supply and interest rates

KEY IDEA

The balance of payments provides important information from which to derive and analyse the relationships between the domestic and external sectors of the economy. A government may choose to regulate an economy's external transactions by implementing a range of macroeconomic as well as microeconomic policy measures.

Governments are compelled to focus on monetary, fiscal, prices and incomes, and microeconomic reform policies to rectify any internal imbalance in the economy. Of course, as we noted in Chapter 2, the float of Australia's dollar is not entirely without interference. Economists refer to it as a 'dirty' float because, over the years since the float in 1983, the RBA has sometimes intervened to bolster the value of the dollar.



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FIGURE 3.10 Governments use economic policies to rectify any internal imbalance in the economy.

3.2.1 The current account

Governments are able to focus specifically on the economy's performance in the external sector and may introduce **external policy** measures to address some particular aspect of external imbalance. For instance, a chronic current account deficit may lead to a variety of macroeconomic and microeconomic strategies. **Macroeconomic strategies** may include **fiscal policy** measures aimed at stimulating export activity. **Microeconomic strategies** might include targeting specific firms and industries to encourage greater involvement in the external sector.

Figure 3.11 shows Australia's recent balance of payments tables.

FIGURE 3.11 Australia's balance of payments 2022–23 to 2023–24

Current account		(A\$m)	
		2022–23	2023–24
Goods	1 Credits (exports of goods)	590 561	536 077
	2 Debits (imports of goods)	–439 927	–444 000
	Balance of trade in goods (items 1+2)	150 634	92 077
Services	3 Credits (exports of services)	95 482	121 132
	4 Debits (imports of services)	–121 669	–143 381
	Balance (items 3+4)	–26 187	–22 249
Balance of trade in goods and services (items 1+2+3+4)		124 447	69 828
Primary income	5 Credits	93 816	101 809
	6 Debits	–203 376	–188 842
	Balance (items 5+6)	–109 560	–87 033
Secondary income	7 Credits	13 110	13 518
	8 Debits	–14 660	–15 107
	Balance (items 7+8)	–1 550	–1 589
Balance on current account (items 1+2+3+4+5+6+7+8)		13 337	–18 794

Continued

Continued

Capital and financial account		(A\$m)	
		2022–23	2023–24
Capital account	9 Net capital transfers	–542	–541
	10 Net acquisition/disposal of non-produced, non-financial assets	–102	165
	Balance on capital account (items 9+10)	–644	–376
Financial account	11 Direct investment	–15 393	57 019
	12 Portfolio investment	5 546	46 704
	13 Financial derivatives	15 501	–69 025
	14 Other investment	–5 007	–12 087
	15 Reserve assets	–5 365	–3 093
	Balance on financial account (items 11+12+13+14+15)	–4 718	19 518
Balance on capital and financial account (items 9+10+11+12+13+14+15)		–5 362	19 142
Net errors and omissions		–7 974	–348
Sum of capital and finance + net errors (balance + errors should tie to debit/credit of current account)		–13 337	18 794
Balance (sum of all items)		0	0
Source: © Reserve Bank of Australia. All rights reserved, based on ABS data.			

Note: Net errors and omissions account for discrepancies to ensure the balance of payments totals zero.



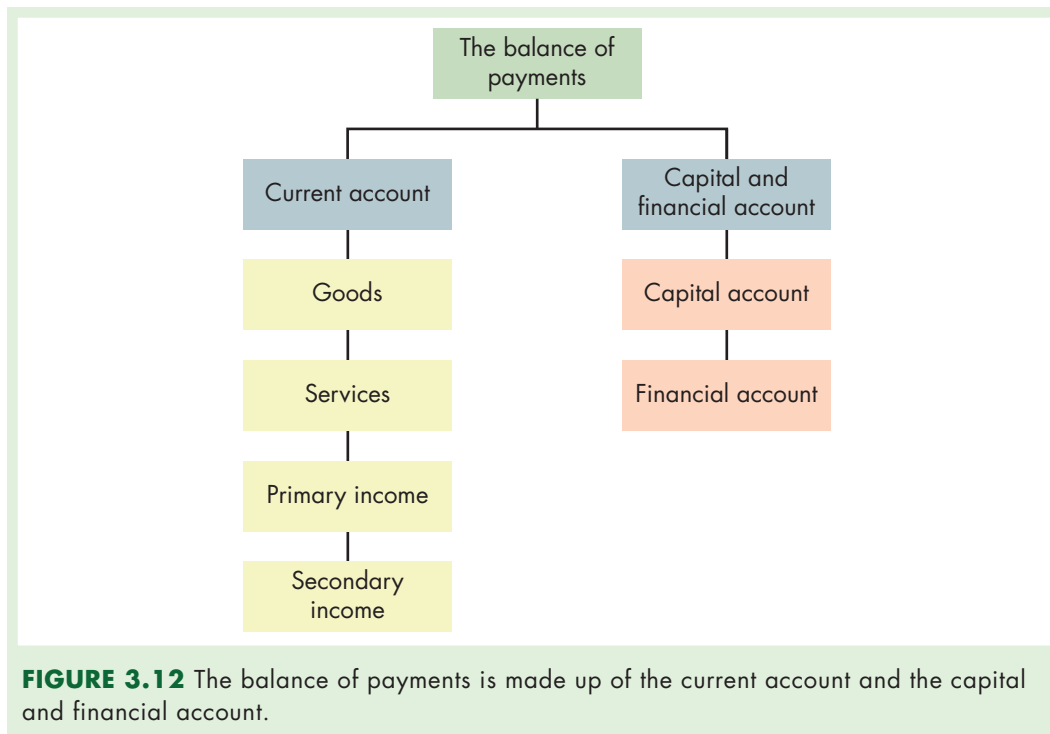
ECONOMICS DATA



Use the Australian Bureau of Statistics website to locate the latest balance of payments figures for Australia.

Structure of the balance of payments

As noted in Section 3.1, the balance of payments is made up of the current account and the capital and financial account: see Figure 3.12. Each of the items in each account is accompanied by a positive or negative number: the positive numbers denote credits (money inflows) and the negative numbers denote debits (money outflows). This is similar to how your bank statement reads. For each account, when the credits and debits are added up, the sum is a positive or negative number. It is a positive number when the credits are greater than the debits, and a negative number when the debits are greater than the credits.



An overall surplus in an account occurs where a balance has a positive value (that is, there are more money inflows than outflows). An overall deficit in an account occurs where a balance has a negative value (that is, there are more money outflows than inflows).

Interdependence of accounts in the balance of payments

In the balance of payments, the sum of all items should be zero. In effect, the sum of all credits balances with the sum of all debits; in other words, deficits are matched by surpluses. Figure 3.11 shows that in 2023–24, the deficit of 18 794 in the current account was matched by the surplus of 18 794 in the capital and financial account. Where there is a current account deficit, there must be a financial account surplus (note that the capital account is very small), which provides the current account with the foreign exchange it needs to pay for the excess of imports over exports. The financial account surplus may arise from investments in physical or financial capital by foreigners, including loans from foreigners. The opposite – where a current account surplus occurs – is also true: the financial account deficit in that scenario would reflect investments in foreign countries undertaken to dispose of the extra foreign exchange.

Cyclical and structural causes and effects of Australian current and capital account trends

The current account deficit follows a cyclical pattern. It increases when the economy grows at a rapid rate due to the increased spending on imports of both consumption and capital goods. When economic growth is at a more sustainable pace, the relative size of the current account deficit declines. The current account deficit is also affected by movements in the terms of trade, movements in the exchange rate, droughts, and the rate of economic growth elsewhere in the world.

A current account deficit results in the accumulation of a large foreign debt, and a depreciation of the Australian dollar. Foreign debt will be discussed later in this chapter (see Section 3.3). A depreciation results from the decrease in demand relative to the supply of the Australian dollar on the foreign exchange markets.

Governments can pursue policies to address the size of the current account deficit. Reducing demand for imports through tight **monetary policy** and moving towards domestic surplus in fiscal policy to reduce the rate of growth of aggregate demand will reduce imports. Moving resources into export industries – through structural adjustment, increasing international competitiveness, and encouraging exports through government assistance – may also assist reduction of the current account deficit.

The government may place restrictions on foreign investment in Australia, thus controlling the cost of servicing the income section.

Changes in both domestic and world economic growth cause a change in the size of the current account deficit. Usually, when domestic growth is higher than world growth, the current account deficit is likely to increase because spending on imports is likely to increase. A larger goods and services deficit results. If world growth is higher than domestic economic growth, export income will increase more quickly than import spending, leading to an improvement in the balance on goods and services.

Australia's net capital-importing status was reversed in September 2019 when the country recorded its first quarter of current account surplus in 44 years. The surplus was predominantly driven by Australia's strong exports, fuelled by record-high prices for iron ore. After being in deficit for most of the previous four decades, the trade balance rose to its highest level on record at around 7 per cent of nominal GDP in the September quarter of 2021, and became larger than the net income deficit. This shift in the trade balance was primarily driven by the end of the mining boom – specifically the move from the investment phase to the production phase.

Australian investment abroad increased by \$275.3 billion from 2020 to 2021, while foreign investment into Australia increased by only \$92.3 billion over the same period. The larger increase in Australian investment abroad affirms that Australia is now a net capital-exporting country.

The return to a current account deficit in the September quarter 2022 followed thirteen consecutive quarters of a current account surplus. While the trade surplus was still strong, it was offset by a record high income deficit. It is likely that falling commodity prices, if they continue, may lead to a further rise in the current account deficit.

ECONOMICS CHALLENGE



The government has a number of policy options available to reduce the current account deficit. Use a variety of sources to research current government policy in each of the following areas:

- exchange rate
- microeconomic reform
- prices and incomes
- fiscal policy measures
- monetary policy measures
- external policy measures, particularly free trade agreements
- domestic savings measures
- promotion of investment in Australian industry.

In light of your research, and using the knowledge you have gained, what criteria could be used to establish the success or otherwise of the government's current policies? Using your chosen criteria, is current government policy successful? Why or why not?

CHECK FOR UNDERSTANDING 3.2

- 1 **Distinguish** between the current account and the capital and finance account of the balance of payments.
- 2 Use the balance of payment data in Figure 3.13 to answer the questions that follow.

FIGURE 3.13 Hypothetical balance of payments data for Australia (A\$m)

Goods credit	80 000
Goods debit	70 000
Net services	300
Net transfers	30
Capital account	1 400
Other investments	4 000
Reserve assets	5 000
Errors/omissions	1 400

- a Why is Australia a price-taker for its exports? Give an example.
- b Why is Australia a price-taker for its imports? Give an example.
- c What is needed if Australia is to compete more successfully in international markets?
- d How do non-price features affect international competitiveness?

ECONOMICS DATA

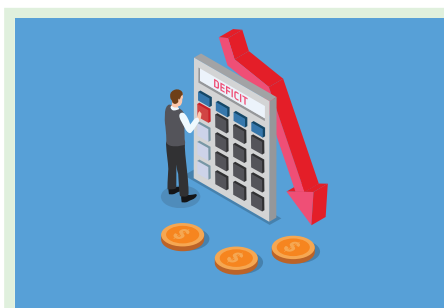


Visit the Department of Foreign Affairs and Trade's 'International Investment Australia' webpage, and locate:

- 1 the amount of new foreign investment in Australia for one year
- 2 the countries from which foreign investment in Australia comes (the top five at least)
- 3 the industries that benefited most from foreign investment
- 4 the overseas countries in which Australians invest.



WebLink
DFAT – International
Investment Australia



iStock.com/Creativalimages

FIGURE 3.14 The government has a number of policy options available to reduce the current account.

3.2.2 The capital and financial account

CONCEPTS



Capital account: a record that includes capital transfers and the acquisition/disposal of non-produced, non-financial assets between residents and non-residents

Direct investment: the creation of new assets and liabilities in a foreign country, such as setting up a production facility or owning more than 10 per cent of a company's shares in a foreign country, giving the investor significant influence over the operation of the enterprise

Financial account: a record that shows the inflows (credits) and outflows (debits) of debt and equity relating to Australia's external liabilities

Portfolio investment: the purchase of less than 10 per cent of the shares in a foreign company to gain financial returns rather than to gain control of the business

The main focus of this text is to support understanding of the current account; however, it is relevant to include details about the capital and financial account. As noted above at 3.1.2, the capital and financial account is the second part of the balance of payments figures in Australia, and it is made up of two sub-accounts: the capital account and the financial account.

The **capital account** includes capital transfers and the acquisition/disposal of non-produced, non-financial assets between residents and non-residents. These include migrants' funds and types of aid funds related to fixed capital formation. The transactions in this account are very small in size, and are relatively insignificant.

The **financial account** shows the inflows (credits) and outflows (debits) of debt and equity relating to foreign investment. This account is in surplus when the change in foreign investment in Australia exceeds the increase in Australia's investment overseas. A surplus in the financial account means that Australia literally draws on the savings of the rest of the world.

The financial account has four components – direct investment, portfolio investment, other investment and reserve assets.

- 1 **Direct investment** is the creation of new assets and liabilities in a foreign country, such as setting up a new production plant, or buying more than 10 per cent of the shares in a foreign company. An example would be the opening of an H&M store in an Australian shopping centre. H&M is a Swedish brand and would be investing in Australia. Similarly, BHP Billiton invests in diamond mines in Mozambique, among its many foreign investments.
- 2 **Portfolio investment** is the purchase of shares in a foreign company amounting to less than 10 per cent of holdings in that company. Examples would include a foreign investor purchasing a million shares in Qantas, or a million shares in BHP Billiton.
- 3 Other investment includes borrowing by a bank from an overseas financial institution, such as the ANZ Bank borrowing from Nomura Holdings (a Japanese financial institution).
- 4 Reserve assets include RBA and government transactions involving foreign currencies and contributions to the IMF and the United Nations. This might occur when the RBA purchases Australian dollars in the foreign exchange market to smooth out the fluctuations in the exchange rate.

ECONOMICS CHALLENGE



Changes in the balance of payments will affect various stakeholder groups in Australia. Select one or more of the following groups and outline how movements within the balance of payments affect the group/s:

- importers
- exporters
- buyers
- overseas investors.

It is important to consider these perspectives when evaluating the costs and benefits of government policy.

3.3 Foreign debt

CONCEPTS



Equity finance: company funds sourced from the selling of shares in a company

External debt: a broader term than 'foreign debt' – external debt includes all debt a country owes to foreign entities (government, businesses or individuals borrowing from foreign sources); it encompasses both public (government) and private (business) foreign debt

Foreign debt: money borrowed from foreign lenders, such as foreign banks

Gross foreign debt: the total of Australia's overseas borrowings

Net foreign debt: gross foreign debt less Australian lending to overseas residents; this gives a more balanced view than gross foreign debt because it subtracts what Australia owns abroad (assets) from what it owes (liabilities)

Nominal GDP: the value of final output of an economy's goods and services expressed in current prevailing prices with no adjustment for the effects of inflation

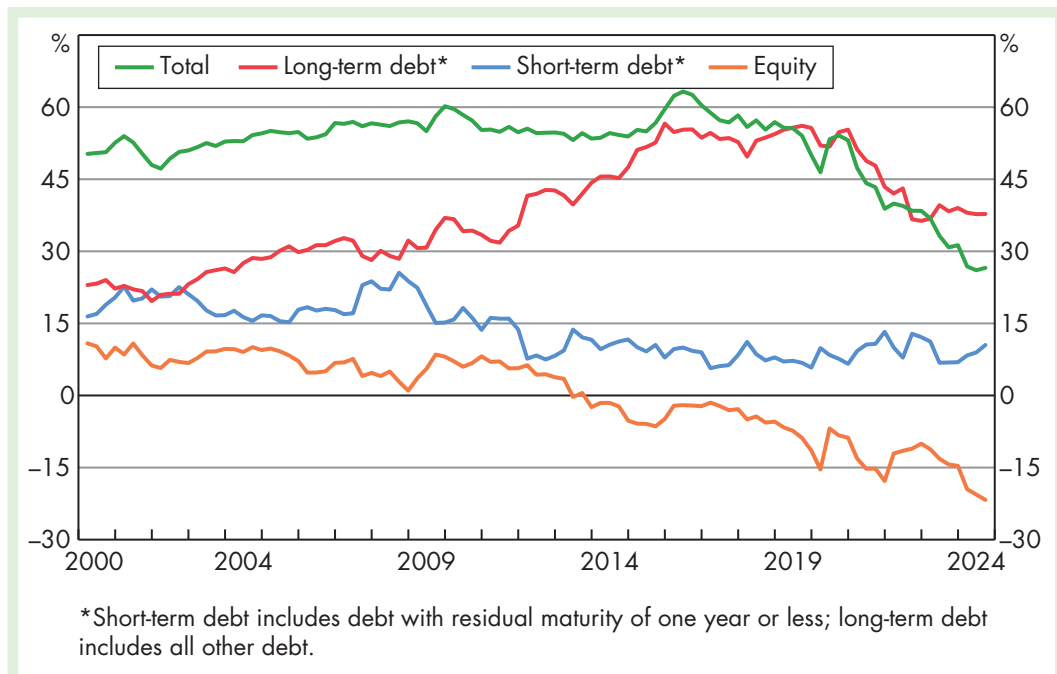
Private foreign debt: the part of Australia's foreign debt owed by private residents

Public foreign debt: the part of Australia's foreign debt owed by the government

KEY IDEA

While certain costs can be identified with foreign debt, there are also potential benefits to be gained. The size of Australia's foreign debt would be a cause for concern if it were mainly caused by increased consumption rather than increased investment.

Australia's **foreign debt** has risen from relatively low levels in the 1970s of less than 10 per cent of GDP, to relatively high levels in the 1990s of about 40 per cent of GDP. By 2016, this had reached 63 per cent: see Figure 3.15 on the following page. Note that this is not a historical high. While comparable data is not available, estimates are that net foreign liabilities reached around 120 per cent of GDP ahead of the Great Depression of the 1930s and more than 150 per cent of GDP ahead of the depression of the 1890s. In 2023, Australia's net foreign liabilities fell sharply to 32 per cent of GDP, which is the lowest level since the mid-1980s.



Source: The Australian Economy and Financial Markets, RBA Chart Pack, February 2025. © Reserve Bank of Australia. Licensed under CC BY 4.0.

FIGURE 3.15 Australia's net foreign liabilities, 2000–24, by type and percentage of GDP



Weblinks
Australian Bureau
of Statistics

Reserve Bank
of Australia

ECONOMICS DATA



- 1 Use online sources such as the Australian Bureau of Statistics, the RBA and other appropriate sites to find:
 - a the latest value of Australia's net foreign debt
 - b the latest value of public foreign debt in Australia, and the percentage of net foreign debt this represents
 - c foreign debt as a percentage of nominal GDP.
- 2 **Compare** the latest figures to those set out above. What changes can you observe?

Foreign debt is the debt owed by a nation as a whole to the external sector. **Gross foreign debt** is the total of Australia's overseas borrowings. **Net foreign debt** is Australia's gross debt less Australian lending to overseas residents, and is regarded as the best view of our debt situation. In June 2024, Australia's net foreign debt was recorded as A\$1 266 528 million (which could be rounded to A\$1.27 trillion).

Public foreign debt is that part of Australia's foreign debt owed by the government, and over the past five years this has averaged 25 per cent of Australia's debt. **Private foreign debt** is thus about 75 per cent of the foreign debt of Australia. It is this debt that often results in increased investment and therefore in increased future income.

3.3.1 Causes of Australia's high external debt

Australia's gross **external debt** in 2024 accounted for approximately 110 per cent of **nominal GDP**, which reflects Australia's status as a significant net borrower in the global financial system. While it may seem surprising, it is not unusual for developed economies to have external debt exceeding 100 per cent of GDP. It means that the total debt owed to foreign creditors is greater than the total value of goods and services produced by that country's economy in a year; but this does not indicate a problem. For example, a company or a government may borrow to invest in profitable ventures (such as infrastructure or technology), which can help grow the economy over time.

Much of Australia's external debt comes from private sector borrowing. Australian companies often borrow from foreign sources to fund large projects, particularly in industries such as mining, energy and real estate.

The growth of Australia's external debt can be attributed to a number of factors:

- a shortage of savings funds within the Australian economy and therefore a need to seek overseas funds
- heavy borrowing by the private sector at agreed interest rates regardless of industry performance, instead of using **equity finance**, where the return to investment dividend is dependent on industry performance and economic conditions
- depreciation of the Australian dollar
- high levels of domestic demand
- high interest rates within the Australia economy (especially during the 1990s and post-COVID-19, when interest rates were higher in Australia compared to other developed economies)
- increasing globalisation as capital markets become more intertwined around the world.

Most of Australia's external debt is written in terms of foreign currencies, particularly the US dollar. The depreciation of the Australian dollar relative to the US dollar in the mid-1980s, and in various periods since then, added further to the nation's debt problem. Every time the Australian dollar depreciated, Australian debtors had to find more dollars to meet their interest and loan repayments. The growing magnitude of external debt in recent years has meant that interest payments have become a significant contributing factor to Australia's current account deficit.

3.3.2 The effects of external debt

A high external debt has a significant impact on the lives of Australians.

- **Higher interest rates:** Interest rates must be relatively high to attract foreign investment to Australia. Governments and others must find extra money to pay the increased interest. The increased costs of interest are passed onto Australians through higher government charges and taxes. If the rate of interest is reduced to lower foreign investment, the demand for the Australian dollar will decrease and hence depreciation of the dollar will occur. A weaker dollar means that it takes more Australian dollars to repay the same amount of foreign debt, increasing the overall burden.
- **Pressure on the government budget:** The government may face increased pressure to allocate more resources to servicing public debt, which could mean less public spending on essential services such as health care, education and infrastructure.

- **Effects on employment and wages:** If high debt leads to reduced government spending or higher interest rates, businesses may scale back investments, leading to lower economic growth and resulting in fewer job opportunities and less wage growth.
- **Tighter fiscal policy:** If the government experiences a surplus budget that results in tight economic conditions, a decrease in services and a lowering of the standard of living, there is a danger that this will need to be followed by changes to monetary policy to kick-start the economy.
- **Increased foreign ownership:** 14 per cent of agriculture, 32 per cent of mining, up to 55 per cent of manufacturing and 32 per cent of service industries in Australia are foreign owned. Such a high level of foreign ownership indicates that Australia has opted to borrow money as a source of investment. This also increases the servicing cost of the foreign debt, as profits and dividends are sent overseas. On the positive side, foreign investment can bring in needed capital, technology and expertise, which help industries grow and create domestic job opportunities.
- **Intergeneration equity:** Some economists argue that high public debt today may place a repayment burden on future generations. Others suggest that if debt is used to fund long-term infrastructure, it benefits those future generations.

CHECK FOR UNDERSTANDING 3.3

- 1 **Recall** the meaning of each of the following terms: gross foreign debt, net foreign debt, public foreign debt, private foreign debt, external debt.
- 2 **Describe** the effect of a depreciation of the dollar on the foreign debt.
- 3 **Explain** how foreign debt affects each of the following areas:
 - a import controls
 - b export promotion
 - c domestic economic policy
 - d exchange rate policy
 - e foreign investment
 - f overseas borrowing.

3.3.3 Possible solutions to the external debt

Possible solutions to Australia's external debt problem include:

- an increase in domestic savings, reducing Australia's need to borrow from overseas
- making Australian exports more internationally competitive, leading to an improvement in the balance of goods and services trading balance
- a decrease in domestic demand (but being careful not to contract the domestic economy too much)
- appreciation of the Australian dollar, which effectively reduces both the external debt and the cost of debt servicing
- the encouragement of equity finance by making it more attractive to overseas investors to invest in Australia; for example, by reducing barriers to foreign investment.

Economists often debate whether Australia's level of external debt is sustainable or poses a risk to long-term growth. Many economists have argued that Australia's net external debt is not a problem, particularly as it allows for more rapid economic growth through investment than might otherwise be available. Figure 3.16 identifies some of the key arguments put forward in the debate.

FIGURE 3.16 The external debt debate

The debt is not a problem	The debt is a problem
• The debt allows for increased economic growth possibilities without putting undue pressure on domestic interest rates. • Debt servicing ratios indicate that Australia's income as a percentage of GDP is greater than the net interest payable. • The economy is not vulnerable to external shocks as most of the debt is private sector debt and because much of the debt is in Australian dollars. • The debt reflects the flow of foreign capital into Australia's private sector. Many businesses rely on foreign loans to expand – creating jobs and contributing to economic prosperity for all Australians.	• Debt servicing can become a problem, as the income component in the current account deficit increases as a percentage of GDP. • Increased borrowing costs are applied to Australian borrowers, as the risk of lending is perceived by overseas lenders to increase with increased debt servicing. • Increased exposure to external economic shocks occurs, because when the exchange rate declines, the value of the external debt increases. To reduce this impact, the RBA may be forced to increase interest rates to stabilise the currency, and this may cause the domestic economy to contract.

CHECK FOR UNDERSTANDING 3.4

- 1 **Explain** why Australia should or should not have such a high external debt.
- 2 The Howard Government (1996–2007) reduced its share of external debt as part of government policy. Is this good for Australia, or should the money have been put into additional infrastructure and services for future generations? **Explain** your answer.
- 3 Following the COVID-19 pandemic of 2020–23, the Morrison Government borrowed from overseas and increased the level of government external debt. Can such borrowings be justified? **Explain** your answer.

3.4 Foreign investment

CONCEPTS



Foreign investment: funds invested in an economy by the rest of the world

Foreign Investment Review Board (FIRB): a federal body established to examine foreign investment proposals

Net capital inflow: the difference between the money coming into a country from foreign investments and the money leaving for investments abroad

KEY IDEA

Australia has always relied on a net inflow of foreign investment to develop its economy and to supplement its domestic savings.

Foreign investment can be divided into two broad categories: direct investment and portfolio investment, also called indirect investment. Direct investment is said to be any capital invested in an enterprise that gives the foreign investor significant influence over the operation of the enterprise. Officially, a 10 per cent or greater share of ownership is considered to be the threshold for determining 'significant influence'.

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FIGURE 3.17 Foreign investment is funds invested in an economy by the rest of the world.

Portfolio investment covers the acquisition by foreigners of shares in Australian enterprises. The principle here is that the foreigner acquiring the shares exerts no real influence over the operation of the Australian enterprise.

In April 1976, the Australian Government established the **Foreign Investment Review Board (FIRB)**, an advisory body created to advise the Treasurer and the government on Australia's foreign investment policy and its administration. The three functions of the board are to:

- 1 examine proposed investments in Australia that are subject to the *Foreign Acquisitions and Takeovers Act 1975* (Cth) (which regulates foreign investment in Australia) and are covered by the foreign investment policy; and to make recommendations to the Treasurer and other Treasury portfolio ministers on these proposals
- 2 provide advice to the Treasurer on the operation of the policy and the Act
- 3 foster an awareness and understanding, both in Australia and abroad, of the policy and the Act.

The FIRB's functions are advisory only. Responsibility for administration of the government's foreign investment policy and for making decisions on proposals rests with the Treasurer.

The Treasury's Foreign Investment Division administers Australia's foreign investment regulatory framework and supports the FIRB's work. The government's approach is to encourage foreign investment that is consistent with the interests of the community. The largest number of foreign investment proposals to the FIRB tend to come from sectors such as real estate (including commercial real estate), services and mining. With regard to real estate, governments aim to channel foreign investment into activity that directly increases the supply of new housing (such as new townhouses) and to bring benefits to the building industry and its suppliers. Restrictive policy measures on already-developed real estate help to reduce the possibility of excess demand in the housing market, and aim to encourage the supply of new dwellings for purchase or rent, while maintaining stability of house prices and the affordability of housing for Australians.

Net capital inflow is the amount of money Australia earns from selling goods and services overseas and from foreign investment, less the amount of money Australians invest overseas. Figure 3.18 shows the net capital inflow as a percentage of GDP.

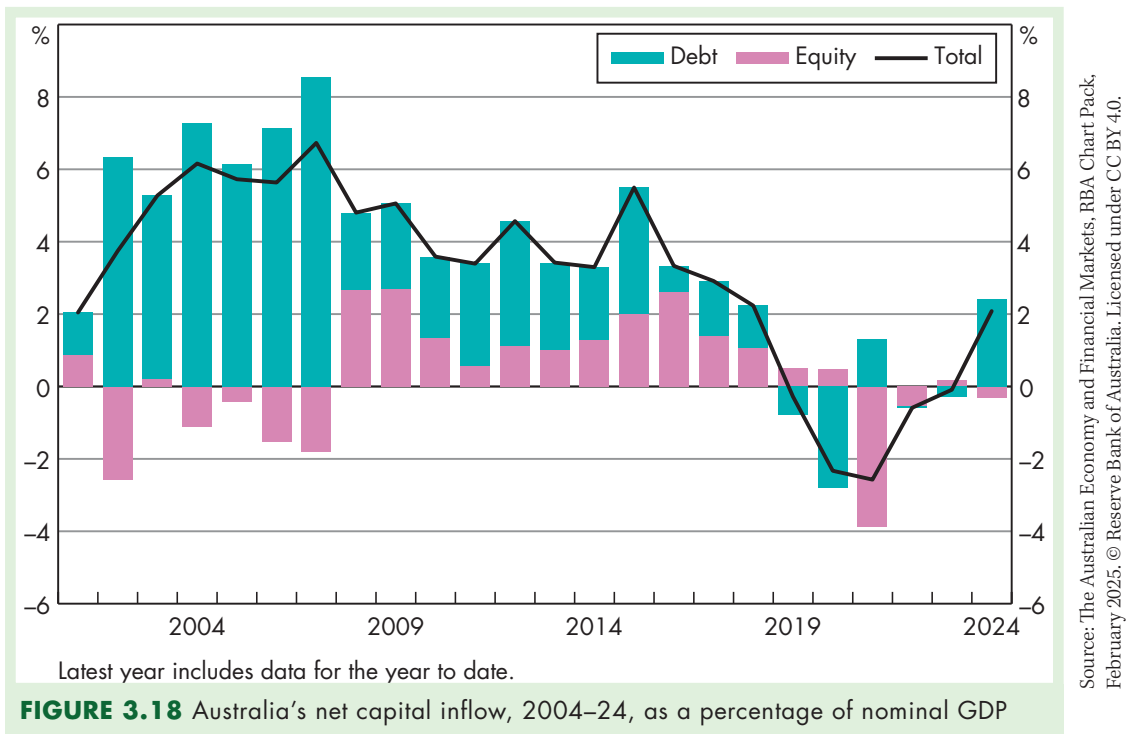
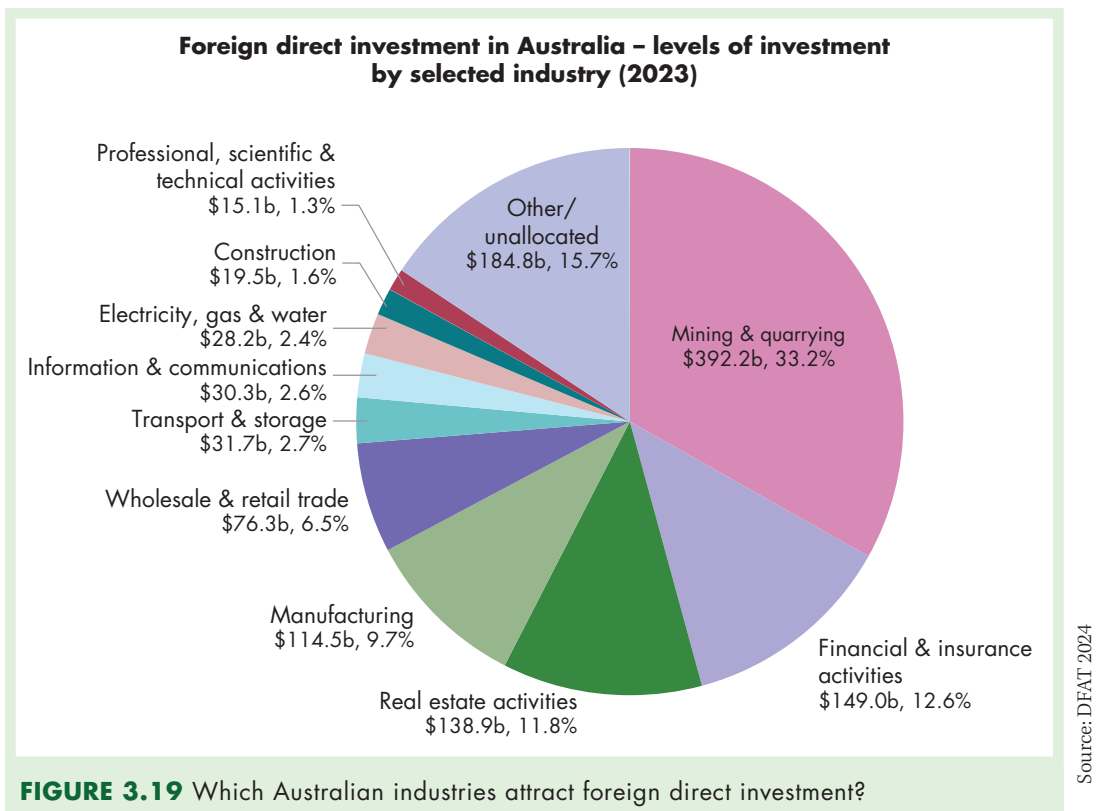


Figure 3.19 shows the Australian industries attracting foreign direct investment. Clearly, mining and quarrying, the financial and insurance industry, real estate, manufacturing, and wholesale and retail trade are the main beneficiaries of foreign direct investment.



3.4.1 Costs and benefits of foreign investment

Economists have identified a number of costs and benefits of foreign investment, as outlined in Figure 3.20.

FIGURE 3.20 Costs and benefits of foreign investment

Costs of foreign investment	Benefits of foreign investment
• It leads to loss of ownership and control of industry and resources. • Increasing external debt, where foreign investment takes the forms of loans, results in high debt servicing, which increases the income component of the current account. • Profits and dividends earned by foreign investors are sent back to their home countries.	• It increases economic activity, employment and income. • It expands the productive capacity of industries and resources. • It provides foreign exchange for purchase of imports that add to quality of life. • It introduces new technology and management that help Australian industries operate more efficiently. • It provides opportunities to access new markets.

The main sources of foreign direct investment in Australia are the USA, Canada, Japan and Singapore. These countries invest heavily in industries such as services, mining, finance and insurance, and commercial real estate.

As an open economy, Australia is exposed to many varying external economic pressures. Managers of the economy, aiming to achieve external viability while minimising disturbance to the domestic economy, need to take into account both theoretical and practical information to overcome problems such as increasing levels of external debt, volatile exchange rates, international prices and variable interest rates. Economic models demonstrate that trade can make everyone better off, but at times the rational economic solution is not clear in an interdependent economy because of domestic and international political and social pressures that intervene.

CHECK FOR UNDERSTANDING 3.5

- 1 **Recall** the role of foreign investment in Australia.
- 2 How is a foreign interest determined in Australia?
- 3 Is foreign investment beneficial or harmful to the Australian economy overall? Why?
- 4 Are joint ventures better for Australia than total foreign ownership of a project? Why or why not?
- 5 **Analyse** Australia's performance in the external sector over the past five years.

ECONOMICS IN ACTION



Gather data about and test the following hypothesis: 'Economic growth in the Australian economy in recent decades must be attributed to foreign investment.'

A suggested approach is as follows:

- 1 Conduct research to determine the levels of foreign investment, GDP per capita and domestic investment in the past ten years.
- 2 Tabulate the data.
- 3 **Compare** the trends and draw conclusions about the impact of foreign investment on Australian economic growth.
- 4 Consider the benefits derived from this investment, and then consider the implications if this investment had not been available.

ECONOMICS CHALLENGE



Evaluate whether Australia's current approach to foreign investment has been successful, using two of the following economic criteria:

- Efficiency – Does it improve the productive capacity of the economy?
- Equity – Who benefits and who bears the cost?
- External stability – Does it improve the balance of payments or increase long-term debt?
- Employment – What is the impact on Australian jobs and skills development?

In QCE Economics, 'evaluate' means to make a decision based on criteria. In this case, designing a table of positive and negative impacts to help draft a response is a good idea, such as that shown in Figure 3.21.

FIGURE 3.21

Criterion	Positive impact	Negative impact
Efficiency	Increases capital Improves infrastructure and technology	May favour foreign firms in strategic industries
Equity	Generates jobs Grows incomes in high-investment sectors	Raises ownership concerns, especially in housing
External stability	Supports current account via export capacity	Increases income debits (profits/dividends are sent offshore)
Employment	Creates new roles in mining, finance and services	Can displace smaller domestic firms

R 3.1 Terminology

Select the correct term from the list below that describes each statement.

A Capital and financial account	F Direct investment
B Credits	G Balance of trade
C Current account	H Public foreign debt
D Balance of payments	I External policy
E Net foreign debt	J Portfolio investment

- 1 The difference between the value of exports and imports
- 2 Measures undertaken by governments to influence activity in the current account or the capital account
- 3 The purchase of less than 10 per cent of the shares in a foreign company to gain financial returns rather than to gain control of the business
- 4 The record of day-to-day financial transactions involving the trade of goods and services between a nation and the rest of the world
- 5 The part of Australia's foreign debt owed by the government
- 6 Payments received by a nation from the rest of the world
- 7 Gross foreign debt less Australian lending to overseas residents
- 8 The summary of a nation's payments to, and receipts from, the rest of the world over a year
- 9 The creation of new assets and liabilities in a foreign country, such as setting up a production facility or owning more than 10 per cent of a company's shares in a foreign country, giving the investor significant influence over the operation of the enterprise
- 10 The record of the movement of capital funds between a nation and the rest of the world

R 3.2 Multiple-choice questions

Select the correct response to each of the following:

- 1 Which of the following appears in the balance of trade figures?
 - A short-term private capital inflow
 - exports and imports of services
 - exports of wool
 - overseas aid by Australian aid groups
- 2 Which of the following is *not* found in Australia's balance of payments on capital and financial accounts?
 - interest and dividends paid to overseas companies and individuals
 - purchases of Australian firms by Chinese firms
 - investment by overseas firms in Australian mining businesses
 - Australian Government borrowings from abroad

- 3 Which of the following factors is most likely to increase capital inflow?
 - A a rise in the exchange rate
 - B a rise in domestic interest rates
 - C a fall in the current account deficit
 - D a rise in either the exchange rate or domestic interest rates
- 4 An increase in foreign debt would be beneficial for an economy if:
 - A the borrowing is used to pay off previous debt.
 - B the borrowing increases the level of domestic consumption.
 - C the borrowing increases the economy's productive capacity.
 - D the borrowing is used to fund increased social security payments.
- 5 The balance of payments refers to:
 - A the net financial result of transactions with the overseas sector.
 - B the net borrowing and lending with the overseas sector.
 - C the net effect of foreign trade in the foreign exchange market.
 - D the daily balance of foreign currencies in the foreign exchange market.
- 6 In the balance of payments, interest payments are included in:
 - A services.
 - B net transfers.
 - C merchandise trade.
 - D capital account.
- 7 Australia's balance of payments usually shows:
 - A a deficit on current account and a surplus on capital and financial account.
 - B a deficit on capital account and a surplus on current account.
 - C deficits on both current account and capital account.
 - D surpluses on both current account and capital account.
- 8 The purchase by foreigners of shares in Australian businesses is known as:
 - A institutional loans.
 - B debt finance.
 - C portfolio investment.
 - D direct investment.
- 9 An example of direct investment is:
 - A a loan raised overseas by the Australian Government.
 - B the establishment of a foreign bank in Australia.
 - C overseas borrowings by the Electricity Commission.
 - D the purchase of Westpac shares by an overseas resident.
- 10 Since the 1970s, Australia has usually had an adverse balance on current account. This has largely been caused by:
 - A an unfavourable balance of trade.
 - B substantial deficits on transport, interest and dividends.
 - C declining gold production in Australia.
 - D the increased importance of capital equipment in the economy.

Review of Chapter 3

- 11 Which of the following is *not* found in the capital account in Australia's balance of payments?
 - A purchases of Australian firms by US firms
 - B investment by overseas firms in Australian mining companies
 - C Australian Government borrowings from abroad
 - D interest and dividends paid to overseas companies and individuals
- 12 Which of the following would be included in the net transfers section of the current account?
 - A interest payments made by the Australian Government to overseas holders of the foreign debt
 - B payments made by Australian companies to foreign transport firms
 - C money flowing into Australia from Japan to buy shares in Australian companies
 - D payments made by the Australian Government for famine relief programs in Africa
- 13 Which one of the following would help offset Australia's current account deficit?
 - A private firms borrowing from overseas
 - B the Reserve Bank of Australia buying Australian dollars on the foreign currency markets
 - C a fall in interest rates in Australia
 - D all of the above
- 14 Which one of the following is an example of a policy measure designed to improve a country's balance on current account by reducing the overall level of expenditure within the economy?
 - A an increase in tariffs on imported goods
 - B an increase in official interest rates
 - C an increase in subsidies to exporters
 - D an increase in the exchange rate
- 15 What would most likely cause Australia's balance of goods and services deficit to become larger?
 - A an increase in Australia's interest rate
 - B an increase in interest rates of major trading partners
 - C a decrease in Australia's inflation rate
 - D improved transport infrastructure

R 3.3 Short response questions

- 1 **Explain** why Australia's current account balance is usually in deficit.
- 2 **Describe** the difference between portfolio investment and direct investment, giving examples.
- 3 **Recall** examples of three financial flows that would be included in the current transfers section of the balance on current account.
- 4 **Explain** the possible effects on the balance of payments on current account of a rapid increase in the level of economic activity.
- 5 **Recall** three reasons for Australia's persistent current account deficit in the balance of payments.
- 6 **Describe** the effects of decreased foreign investment on the balance of payments.

R 3.4 Activities

- 1 Given the following information, **calculate** the balance on current account:
 - exports: \$500 million
 - imports: \$520 million
 - service credits: \$15 million
 - service debits: \$30 million
 - income credits: \$2 million
 - income debits: \$7 million
 - transfer credits: \$20 million
 - transfer debits: \$10 million
- 2 Answer the three questions below, given the information that follows:
 - a Accurately **identify** the sub-account of the current account in which each item would be entered.
 - b **Construct** the current account, sorting the entries into the correct sub-account, and accurately **identifying** the items as credits or debits.
 - c **Calculate** the balance on current account. Is it in surplus or deficit?
 - i goods purchased from overseas by Australian countries: \$520 million
 - ii estimated expenditure by Australian tourists overseas: \$15 million
 - iii social security benefits payable to Australian citizens residing overseas: \$20 million
 - iv port services payable by non-Australian residents: \$22 million
 - v expenditure by non-Australian companies purchasing Australian products: \$500 million
 - vi interest paid by Australian investors to foreigners: \$2 million
 - vii social security payments received in Australia by non-Australian citizens: \$10 million
 - viii port services payable to non-Australian residents: \$20 million
 - ix interest paid to Australian investors by foreigners: \$7 million
- 3 For each of the separate financial flows that follow, state:
 - a whether they are recorded as debits or credits
 - b a relevant section of the balance of payments.
 - i the export of live sheep to the Middle East
 - ii financial aid given to Africa
 - iii the payment of Australian tax by Australian sportspeople winning prize money overseas
 - iv interest paid by the Queensland Government to bond holders living overseas
 - v migrants bringing money with them when they come to live in Australia
 - vi imports of French perfume
 - vii the inflow of capital from overseas for share purchases on the Australian stock market
 - viii insurance of a new, Australian-owned catamaran at Lloyd's of London
 - ix the Reserve Bank of Australia using its reserves to buy Australian dollars on the foreign exchange market
 - x secret payments to secret agents overseas

R 3.5 Investigation – research topics

- 1 **Analyse** Australia's current account balance over the past five years. **Evaluate** the achievement of government objectives, using one economic criterion.
- 2 'The foreign debt is like an anchor weighing Australia down.' **Analyse** Australia's foreign debt over the past three years. **Evaluate** the levels of foreign debt according to two stakeholder perspectives.
- 3 The high-profile nature of Chinese investment in Australia is creating much concern and public debate on foreign investment generally. Such concern has pressured the government to establish a commission of inquiry into foreign investment in Australia. As a federal member of parliament, you have been asked to head this inquiry and present your findings to the Prime Minister. The necessary legislation to enact the inquiry has established the following terms of reference:
 - types of foreign investment
 - sources of foreign investment
 - extent of foreign investment
 - importance of foreign investment to the Australian economy
 - legislation and government policy restricting and facilitating foreign investment
 - public perceptions and attitudes towards foreign investment
 - benefits of an economic nature derived from foreign investment
 - areas of concern of an economic nature relating to foreign investment.

Based on the commission's findings, present your conclusions and recommendations regarding foreign investment in Australia.
- 4 Is Australia's level of external debt too high? Given that the majority of debt is private sector debt, should the Australian Government impose tighter restrictions on foreign ownership and control of Australian enterprises? **Evaluate** the effect on the Australian economy, using two economic criteria.



4

Global economic issues

This chapter aims to examine major factors affecting Australia's trade relationships with the rest of the world, including globalisation, multinationals and international trade agreements.

Focus questions and inquiries

- Does globalisation mean that consumers are becoming the same worldwide?
- What are the impacts of barriers to trade and the economic tensions they create?
- What methods of protection are employed by nations?
- What are the linkages between economies, including trade, investment, tourism, supply chains and immigration?

This chapter will examine:

- factors that have contributed to the growth of multi-company and multinational supply chain integration
- factors that have contributed to globalisation and current international trade patterns
- the contemporary role of 'free trade' agreements and their impact on Australia's international trade
- the economic outcomes of international trading bloc agreements.

4.1 The nature of globalisation

CONCEPTS



Capital mobility: the ability to move private funds across national boundaries in pursuit of higher returns

Globalisation: the increasing interconnectedness and interdependence of economies, businesses and people across the world, driven by trade, investment, technology, and the movement of people and ideas

Globalisation of markets: the convergence of tastes and preferences across the markets of the world, and global acceptance of standardised products

Globalisation of production: the dispersal of the phases of production around the world by a firm to take advantage of national differences in production efficiencies

Interdependence of national economies: linkage between events in one economy

and outcomes in another by means of cross-border transactions and international flows of trade, capital and technology

Multinational corporation (MNC): an enterprise operating in several countries but managed from one (home) country; generally, any company or group that derives 25 per cent of its revenue from operations outside of its home country is considered a multinational corporation

Supply chain: the system of organisations, people, activities, information and resources involved in moving a product or service from supplier to consumer

Transfer: the movement of scientific methods of production or distribution from one enterprise, institution or country to another

KEY IDEA

Economic globalisation is the increasing convergence and interdependence of national economies. The international scope and availability of markets, distribution systems, capital, labour and technology have increased.

The world's economy can no longer be viewed simply as a patchwork of distinct national economies; through **globalisation**, more and more it resembles a single global economy.

This global economy is increasingly shaped by digitalisation and technological innovations. The rise of e-commerce platforms, social media, cloud computing, and automation driven by artificial intelligence (AI) has created a digital global marketplace. However, global events – such as the COVID-19 pandemic, geopolitical tensions and climate concerns – have highlighted the vulnerabilities of global **supply chains** and have led some countries to place a renewed focus on economic resilience, sustainability and local production.

4.1.1 Global linkages in action

National economies, businesses and individuals around the world are becoming more closely bound together in a network of global linkages. These linkages are evident in a number of ways; for example:

- 1 **Products from all over the world at your fingertips:** Think about your phone and your computer. They are made from materials and components that come from

different countries – perhaps the screen is from Japan and the processor is from the USA – and they may be assembled in China.

- 2 **Global brands you know and love:** Whether you're grabbing a burger at McDonald's in Townsville, or buying Nike sneakers in Paris or Tokyo, **multinational corporations** have made their products instantly recognisable and available no matter where you are in the world.
- 3 **Foreign ownership of local businesses:** Vegemite was owned by the US company Mondelez International (previously Kraft) for many years. However, in 2017, Bega Cheese – an Australian dairy company – bought back the Vegemite brand, returning it to Australian ownership. This illustrates how even iconic local brands can have periods of foreign ownership, reflecting globalisation's impact on national products.
- 4 **Career without borders:** With globalisation, a graphic designer in Melbourne can work for a company in London, and software developers in India can collaborate on a project with a team in Silicon Valley. Globalisation has made remote work across borders a reality.

Other – less obvious – linkages include the following:

- 1 **Markets moving together:** A stock market crash in the USA can impact share prices in Australia or Europe within hours. The interconnectedness of financial markets means that economies rise and fall together.
- 2 **Changing jobs and industries:** As manufacturing moves to countries with lower labour costs, economies like Australia have seen job growth in sectors such as finance and services, but job losses in traditional industries such as manufacturing.
- 3 **Money moving across borders:** Every day, billions of dollars in loans, investments and deposits flow between countries. Banks and companies borrow in one currency and lend in another, linking the world's financial systems.
- 4 **Education without limits:** There is a good chance that some of your classmates or friends might be from overseas, studying English or attending high school or university in Australia. Globalisation has made education a global commodity.

4.1.2 The interdependence of national economies

The globalisation of the world economy is characterised more by the **interdependence of national economies** than by the linkages of international trade. Globalisation implies that national economies lose some of their independence and separate identities as they become merged into one global economy. Moreover, the process of globalisation occurs through a number of channels in addition to international trade. These channels include the **globalisation of markets**, the **globalisation of production**, **capital mobility** and technology **transfers**.

Globalisation has become one of the economic issues of our time. It is discussed by everyone, from the citizen in the street to economists and political leaders at the highest level. Joseph Stiglitz, Nobel Prize winner in economics, says that the benefits of globalisation stem from 'the enormous reduction of costs of transportation and communication, and the breaking down of artificial barriers to the flows of goods, services, capital, knowledge and people across borders'. However, despite being responsible for creating prosperity, globalisation has also been blamed for climate change and environmental degradation.

Globalisation is not a new concept. Throughout history, there have been periods of major globalisation as a result of military conquests; for example, the spread of the Roman Empire, whereby new ideas and products were introduced into different regions.

4.2 The extent of globalisation

CONCEPTS



Capital flow: the movement of money for the purpose of investment, trade or business production

Direct investment: the creation of new assets and liabilities in a foreign country, such as setting up a production facility or owning more than 10 per cent of a company's shares in a foreign country, giving the investor significant influence over the operation of the enterprise

Global financial system: the global system of integrated national financial markets and institutions that provides

the means for cross-border financial transactions

Law of one price: a measure of economic integration based on the theory that the prices of similar products traded in linked markets should converge to the one price

Non-tariff barriers: barriers to trade other than tariffs; for example, quotas, licences and technical specifications

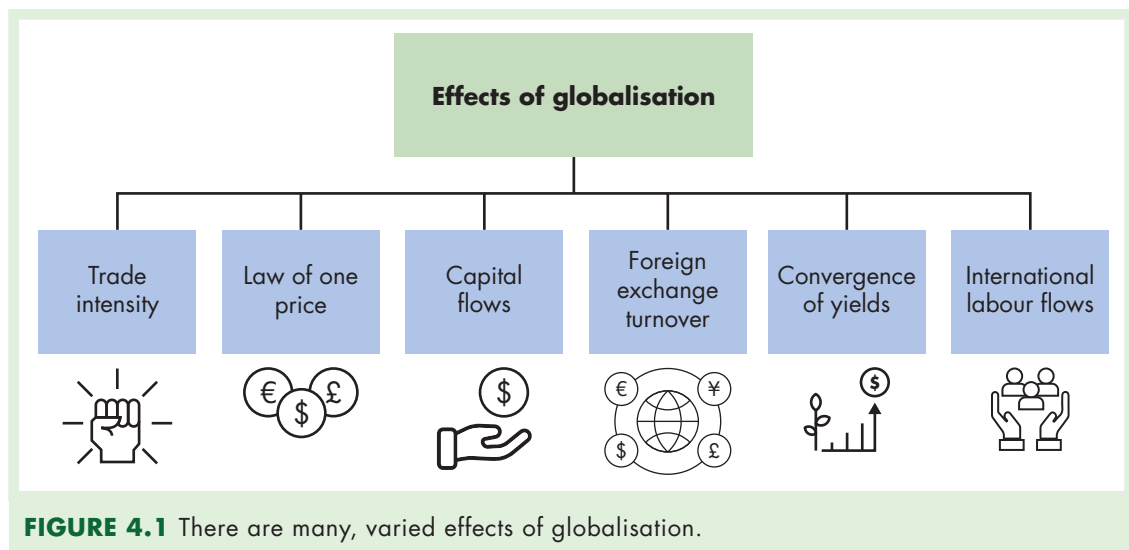
Trade intensity: a measure of economic integration based on the ratio of trade (the sum of exports and imports) to output

How integrated have economies become? The integration of economies essentially concerns the movement of products, capital and people across international borders. Measures of the extent of globalisation can therefore be derived from the flows of trade, capital and labour across international borders.

The extent of globalisation can be measured at two levels: the economy and the firm. This discussion focuses on the economy only.

4.2.1 Globalisation and the economy

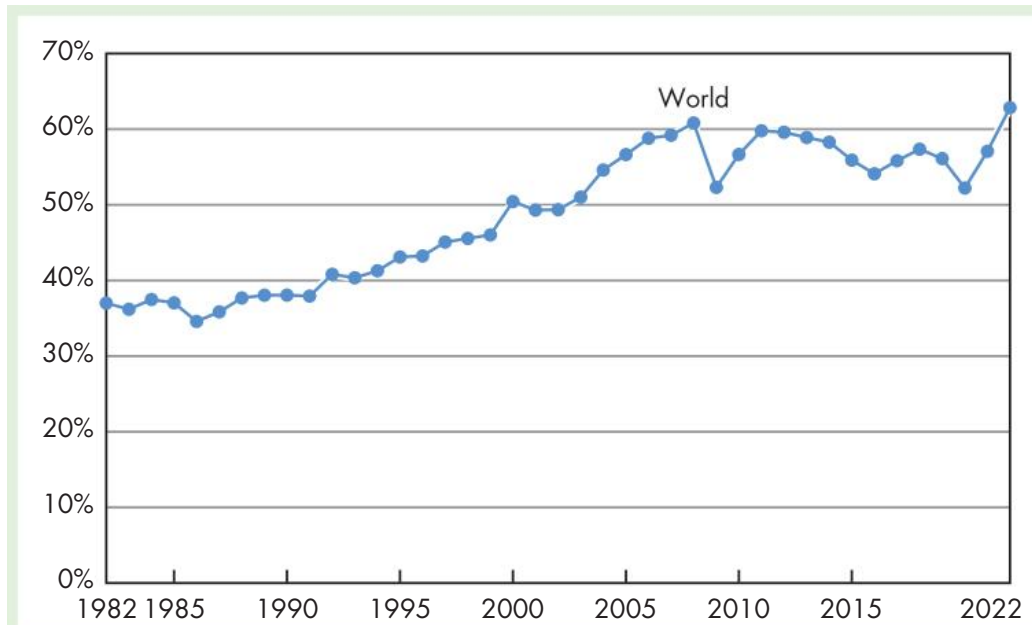
Two trade-related measures of the level of globalisation and the economic integration of markets in the world economy are trade intensity and the law of one price.



Trade intensity

Trade intensity is the ratio of trade to output. It gives a measure of the integration of product markets in the world economy. Figure 4.2 shows that world trade volume growth has generally been growing faster than world GDP growth, while Figure 4.3 shows the breakdown of trade as a percentage of GDP for selected trade partners. The ratio of trade growth to GDP growth has been remarkable, and reflects the continuing importance of globalisation.

What does this all mean? It means that a greater proportion of home-based production is being directed by producers to international rather than domestic markets, and a greater proportion of domestic markets are being served by imports. Domestic producers and product markets have become more internationally oriented and integrated.



Source: World Bank and OECD (2025) – processed by Our World in Data

FIGURE 4.2 Trade as a share of GDP, 1982–2022, also known as the ‘trade openness index’. These figures are accurate to 2022. Trade patterns may shift further due to post-pandemic realignments and geopolitical fragmentation.

FIGURE 4.3 Total trade as a percentage of GDP – selected countries

Country	Total trade as a % of GDP 1982	Total trade as a % of GDP 2022	Percentage change in total trade as a % of GDP	Percentage change in GDP
Australia	30	45	15	49
USA	18	27	9	56
Japan	27	47	20	75
Canada	47	68	21	45
China	14	38	24	168
South Korea	60	97	37	60
India	14	49	35	249
Germany	44	100	56	125

Source: Our World in Data



Weblinks
World Trade
Organization

World Economic
Forum

United Nations
Conference on Trade
and Development

ECONOMICS DATA



- 1 Find recent data to update both the graph in Figure 4.2 and the table of statistics in Figure 4.3. Suitable sites are available via these weblinks.
- 2 What does your updated data reveal? Are there any major changes, or do the trends continue as they were?

iStock.com/Metamorworks



FIGURE 4.4 Economies are becoming more integrated as a result of globalisation.

In 1982, the ratio of trade to GDP in Australia was 30 per cent. In 2022, this had grown to 45 per cent. Trade intensity probably underestimates the extent of product market integration. GDP includes many services that are non-tradeable; for example, services to the owners and occupiers of houses and office blocks, and services to the users of infrastructure (such as roads and bridges) are unable to be traded.

Of course, the remarkable figures are those for China and India, which had remarkable growth rates and contribute much more to the world economy than they did in 1982.

Law of one price

Economic theory predicts that the prices of similar products in markets that are linked should converge to the one price. If they do not, people can profit by buying cheap in one market and selling for a profit in the higher-priced market. The demand and supply forces created by this profit-seeking activity in the respective markets bring the prices into line. A measure of the degree of economic integration, therefore, is to examine the extent to which the prices of internationally traded products converge across countries. There is little deviation across countries from a world price for products such as gold and oil. Applying the **law of one price**, the markets for these commodities are highly integrated. There remain, however, significant deviations in prices across countries for most traded goods. This is due to tariffs, **non-tariff barriers**, transaction costs, transport costs, and lack of sufficient information by traders regarding regulatory, market and production conditions.

The increase in the cross-border flows of long-term and short-term capital is a measure of the global integration of financial markets of economies. Growth of turnover in the global foreign exchange market and the convergence of yields and interest rates – another application of the law of one price – are other measures of integration.

CHECK FOR UNDERSTANDING 4.1

- 1 **Recall** two trade-related ways of measuring the level of economic integration of the domestic economy and the international economy.
- 2 **Recall** the term 'trade intensity'.
- 3 **Describe** two examples of non-tradeables.
- 4 **Explain** how increased trade intensity reflects the global integration of product markets.
- 5 What does the law of one price predict about the price of traded goods?
- 6 **a Identify** two products for which the law of one price seems to apply.
b Why does the law of one price seem to work in the market for these products but not other products?

ECONOMICS IN ACTION



Survey: Trade intensity

Visit your local supermarket, department store or speciality store. Select a category of product; for example, a food aisle of a supermarket, the children's clothing section of a department store or the car accessories section of a hardware store. **Classify** the products and determine the proportions that are 'made in Australia' compared to made elsewhere in the world. Present the data in graphical form, showing the relative shares from the different categories of product.

Capital flows

The integration of national financial markets into a **global financial system** gives firms greater access to financial services from a diverse and competitive array of providers. Investors have access to an expanded menu of **capital flows** and investment opportunities.

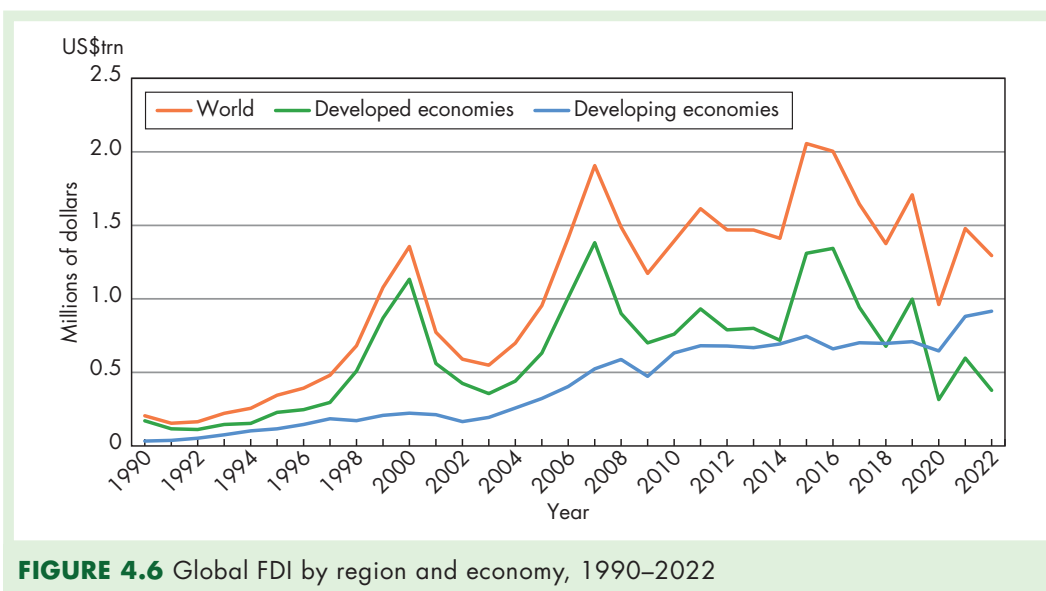


iStock.com/peshkov

FIGURE 4.5 The global financial system gives firms access to a diverse array of providers.

As shown in Figure 4.6, finance from external sources in relation to economic activity grew significantly until a peak in around 2016, where it then saw some sharp declines due to a combination of factors. First, heightened geopolitical tensions – such as the Russia–Ukraine conflict and uncertainty around trade policies – discouraged foreign **direct investment** (FDI). Second, policy changes in major economies – such as tax reforms in the USA and capital controls in China – also impacted FDI flows. Third, some significant divestments, particularly in the USA – such as large-scale pullbacks by multinational corporations – led to a notable drop in FDI flows.

Source: <https://unctad.org/publication/world-investment-report-2023>



Foreign exchange turnover

Another measure of financial globalisation is the average daily turnover in the foreign exchange market. Financial globalisation is, in part, a reflection of the growth of international trade and the globalisation of production. Trading in the global foreign exchange market, however, has grown faster than the growth of international trade of goods and services. According to the Bank for International Settlements, as of April 2022, average daily turnover in global foreign exchange markets is estimated at US\$7.5 trillion. Clearly, the dealings of currencies in the foreign exchange market are for purposes other than as a medium of exchange in international trade. People and institutions are looking beyond their national financial markets to the international financial market to serve their financial needs.

Convergence of yields

International financial transactions can be initiated from virtually anywhere in the world, at any time of the day, and can be completed at the speed of electronic data transfers. Well-informed investors will move funds around the world to capture the best yields for their investments. Consequently, according to the law of one price, the yields of offshore and onshore investments with similar risks should converge. However, because of volatility in expectations about inflation and exchange rates, together with associated risks, yields do not necessarily converge; but in the major financial centres – such as the USA, Japan and the euro region – we find that the yields track each other in terms of rises and falls. These parallel shifts are evidence of the merging of national financial markets into a single global financial system.

ECONOMICS CHALLENGE



Weblinks
United Nations
Conference
on Trade and
Development

Organisation for
Economic Co-
operation and
Development

World Bank

International
Monetary Fund

Global integration

Which economy is more globally integrated, the Australian economy or the economy of another country of your choice, such as India or China?

In order to answer this question, collect and **analyse** the following information for both countries:

- external debt as a percentage of GDP
- inward FDI as a percentage of gross fixed capital formation
- total stock of inward FDI as a percentage of GDP
- policy towards FDI and trade
- government promotion of inflow and outflows of trade and investment.

Search publications and organisations such as *World Investment Report* (United Nations Conference on Trade and Development), *The Globalisation of Industry in the OECD Countries* (Organisation for Economic Co-operation and Development), the World Bank and the International Monetary Fund. Follow the links to these sites as a starting point.

International labour flows

FDI and the globalisation of markets and production create opportunities for international migration, especially for expatriate managers and skilled employees in multinational corporations. Globalisation facilitates cross-border interactions and increases awareness of career prospects abroad. Economic factors – such as wage differentials and employment opportunities – remain key drivers of international migration.

Although barriers to trade and capital flows have been liberalised, migration remains tightly regulated, reflecting national concerns over economic, social and political issues. As a result, while labour markets are increasingly interconnected, they remain segmented, and immigration policies vary widely across countries. Technology and remote work are emerging factors that have impacted international labour flows, enabling people to work globally without physically migrating. Nonetheless, data from the Organisation for Economic Co-operation and Development (OECD) highlights the growing role of migration in labour market integration, particularly in specialised sectors.



iStock.com/CreativeImages

FIGURE 4.7 Globalisation of markets creates opportunities for international migration.

CHECK FOR UNDERSTANDING 4.2

- 1 Which has grown faster over the past two decades, on average: international trade flows or international capital flows?
- 2 Why does the majority of international capital flow between the OECD countries?
- 3 **Explain** why an increase in the foreign exchange turnover points to the increasing integration of financial markets.
- 4 **Describe** how capital flows between nations keep movements in interest rates aligned.
- 5 **Recall** the difference between permanent migration and temporary migration?
- 6 **Explain** the economic and political arguments that are frequently used to restrict permanent migration.
- 7 **Explain** how education can be a force for globalisation

4.3 Multinationals and supply chain integration

CONCEPTS



Belt and Road Initiative: a global infrastructure and economic development strategy launched by China in 2013

Blockchain: a technology that works like a digital notebook, where information is stored securely and shared across many computers; it keeps records of transactions, such as buying and selling things, in a way that no one can easily change; each record, called a 'block', is connected to the one before it, creating a 'chain' of blocks

Competitive advantage (of a nation): trade advantage obtained through the capacity of a nation's industries to innovate and upgrade

Economies of scale: cost efficiencies that are derived by producing a large volume of standardised products

Factor endowment: the supply of the factors of production (land, labour, capital and enterprise) that exists in a country

Host country: a country where a company that is based in another country has business activities

Multinational corporation (MNC):

An enterprise operating in several countries but managed from one (home) country; generally, any company or group that derives 25 per cent of its revenue from operations outside of its home country is considered a multinational corporation

Nearshoring: the practice of relocating business operations or production to a nearby country rather than a distant one

Parent country: the country where a multinational corporation is primarily based and from where its major decisions are made

Public-private partnerships (PPPs): agreements between governments and private companies to finance, build and operate projects

Supply chain: the system of organisations, people, activities, information and resources involved in moving a product or service from supplier to consumer

Traceability (of supply chains): the ability to track the origin, movement and handling of goods and materials throughout the entire supply chain, from raw materials to the final product

A **multinational corporation (MNC)** is an enterprise or company that operates in more than one country, but is managed from one home country, called the **parent country**. Usually, an MNC will earn at least 25 per cent of its revenue from operations outside its base country. MNCs generate much of the world's FDI through subsidiary companies operating in other countries. A large proportion of MNCs have offices, branches, mines, processing plants and workers in other countries, referred to as **host countries**. Usually, their main headquarters are found in the parent country.

MNCs are able to become extremely large and influential because of their multinational **supply chains**. A supply chain is a system of organisations, people, activities, information and resources involved in moving a product or service from supplier to consumer. Supply chain activities involve the transformation of natural resources, raw materials and components into a finished product that is delivered to the end customer.

While all businesses have a supply chain, those of MNCs are large, usually complex, and under the management of the parent company. MNCs seek to maximise the value they receive from their supply chain.

The global supply chain's contribution to company performance continues to grow, reflecting its critical importance to MNCs. Global supply chain efficiency and strategy account for a significant portion of an MNC's operational success, particularly for technology-driven companies. For example, Siemens highlights the importance of supply chain management for innovation and sustainability, and leverages its global network to enhance performance and customer value.

This section examines the major factors influencing the supply chain.

4.3.1 Location of natural factor endowments

Many MNCs rely on **factor endowment** – the supply of resources from outside their parent country. These may be natural resources such as minerals or coal, or an agricultural product such as coffee or cocoa beans. They may also be other types of natural resources, such as availability of large tracts of land, or a suitable water supply. It is almost inevitable that these resources will be sourced from a variety of countries – to rely on just one country for the supply of a resource is not efficient if a barrier to production of the resource occurs in that country; for example, due to civil war, flood, drought or a change in government.



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FIGURE 4.8 Many MNCs rely on resources from outside their parent country, such as land and water.

MNCs will tend to source their basic materials from those countries that have a **competitive advantage**, and provide the best **economies of scale** opportunities. In recent years, however, there has been a growing focus on sustainability, with MNCs seeking to ensure that their global supply chains are transparent, ethical and environmentally sound.

Furthermore, rather than purchasing crops that have passed through several 'layers' of collectors, firms are increasingly sourcing directly from farmers or trusted aggregators. This is particularly true in particular sectors, including coffee, cocoa and sugar. For example, many agribusiness food processors source raw materials directly from small-holder farmers. The drivers for this change include concerns about food safety, child labour and environmental sustainability, as well as a desire to increase productivity and improve crop quality. Companies are also prioritising **traceability** in their supply chains, seeking to ensure that products meet sustainability goals while improving quality and productivity. Technological advancements, such as AI and **blockchain**, are now central to managing these complex supply chains.

Another example of factor endowment enhancing MNC growth has been the tendency to seek low-cost labour. Some countries have an abundance of labour, and hence the labour cost is relatively low. Labour-intensive industries – for instance, textiles, footwear and clothing manufacture – therefore seek low-cost labour in countries that have an abundance of potential workers. Examples include Nike and Bonds. The supply chains of these companies include the use of labour in countries such as Indonesia and the Philippines. However, the rise of automation is transforming how companies approach labour, as they seek a balance between human labour and robotics to drive efficiency.

Advances in technology

Since the start of the century, the world has seen remarkable advancements in technology, and the pace continues to accelerate. Through the Internet and e-commerce platforms, customers can now purchase directly from manufacturers, bypassing traditional retail channels and intermediaries. This direct-to-consumer (D2C) model has significantly shortened supply chains, leading to lower costs for both companies and consumers.

In addition, the integration of AI, automation, cloud computing and big data is revolutionising how MNCs operate globally. These technologies enable predictive analytics, automate production, optimise supply chains and improve real-time decision making. Blockchain further enhances transparency and traceability in supply chains, helping to ensure product authenticity and reduce fraud.



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FIGURE 4.9 AI is revolutionising how MNCs operate globally.

Technology has also made it easier for MNCs to collaborate across borders through remote work platforms, and has helped them reduce costs by leveraging differences in wages, regulations and tax structures. Finally, advancements in smart technologies are enabling MNCs to pursue sustainability goals – reducing their environmental impact while increasing efficiency.

The key benefits of these technological advances are cost reduction, value creation, greater efficiency and enhanced collaboration across global operations.

Infrastructure and transport

All MNCs need well-developed transport networks, without which the global supply chain networks could not possibly continue to function. Roads, railways, ports, airports and other transport systems are crucial in moving raw materials, finished goods, parts, capital equipment and all other items in the supply chain between productive stages, to the finished product, and onto consumers. Efficient movement of people and freight is vital to today's global economy. Therefore, governments need to be able to supply sufficient infrastructure such as rail lines, port facilities and road development to assist economic growth. It is vital for company growth that these services are readily accessible to MNCs. Lack of paved roads, rail lines and port facilities will encourage MNCs to seek other markets from which to obtain their products.

While developed countries generally have well-established transport networks, emerging markets are investing in infrastructure through **public-private partnerships (PPPs)** and schemes such as the **Belt and Road Initiative** to attract MNCs. Additionally, the rise of sustainable transport solutions – such as electric vehicles and low-emission ships – reflects a growing emphasis on environmental responsibility in global logistics.

In addition to physical infrastructure, digital infrastructure – such as 5G networks and cloud-based systems – is becoming increasingly important in managing supply chains and helping to ensure seamless global operations.



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FIGURE 4.10 All MNCs need well-developed transport networks.

Government incentives

The government of a country might offer inducements to MNCs to establish operations there. Such inducements will facilitate the growth of the MNC. They include lower taxation rates, provision of infrastructure, assistance with establishment costs, provision of essential accompanying services and regulation (or lack of regulation) of business operations. In recent years, many governments have also introduced incentives aimed at promoting digital transformation, sustainability and the creation of innovation hubs.

When seeking a host country, MNCs will often approach more than one country, and in a sense these countries are often competing against each other to attract MNC operations. This competition can result in better conditions for the MNC to grow and flourish.

International trade has increased so dramatically in recent decades that MNCs are highly dependent on the supply chain to provide the necessary buying and selling infrastructure. The incredible growth of MNCs has been driven largely by the effective development and implementation of global supply chains that result in multi-company and multinational supply chains. Furthermore, recent global disruptions have prompted governments to offer additional incentives to diversify supply chains and promote local production or **nearshoring** efforts, so reducing the risks associated with reliance on distant suppliers.

Governments now play a crucial role in shaping MNCs' corporate strategies by offering incentives that align with broader goals, such as economic growth, sustainability and innovation.

4.4 Factors contributing to globalisation

CONCEPTS



Basket of currencies: a method for determining exchange rates that uses a selection (basket) of currencies instead of fixing the value of one currency to one other currency, thereby minimising the effects of any fluctuations

Bloc: a group of countries or organisations that form an alliance to promote common economic, political or trade interests

Comparative advantage: the ability of a nation to produce a product at a lower opportunity cost of production than another nation

Competitive advantage (of a firm): a characteristic specific to a firm that makes it competitive in the marketplace; for example, a lower-cost producer, an established brand name or an innovative product

Export-orientation strategies: strategies to encourage the expansion of domestic production for export markets

Import-substitution strategies: strategies aimed at replacing manufactured consumer imports with domestic production from infant industries that are protected from international competition

Privatisation: the total or partial sale of a government business enterprise

Protection: any policy implemented by government to provide domestic producers with an artificial advantage over foreign competitors

Regionalisation: the process of focusing economic, political or business activities within a specific geographic region rather than on a global scale

Reshoring: the process of bringing manufacturing or business operations back to a company's home country after previously offshoring them

Transfer price: the price charged for goods by one subsidiary of a multinational corporation to another subsidiary of the same company in another country

Transparency: laws and regulations that are clearly spelt-out, promptly and consistently enforced and readily accessible

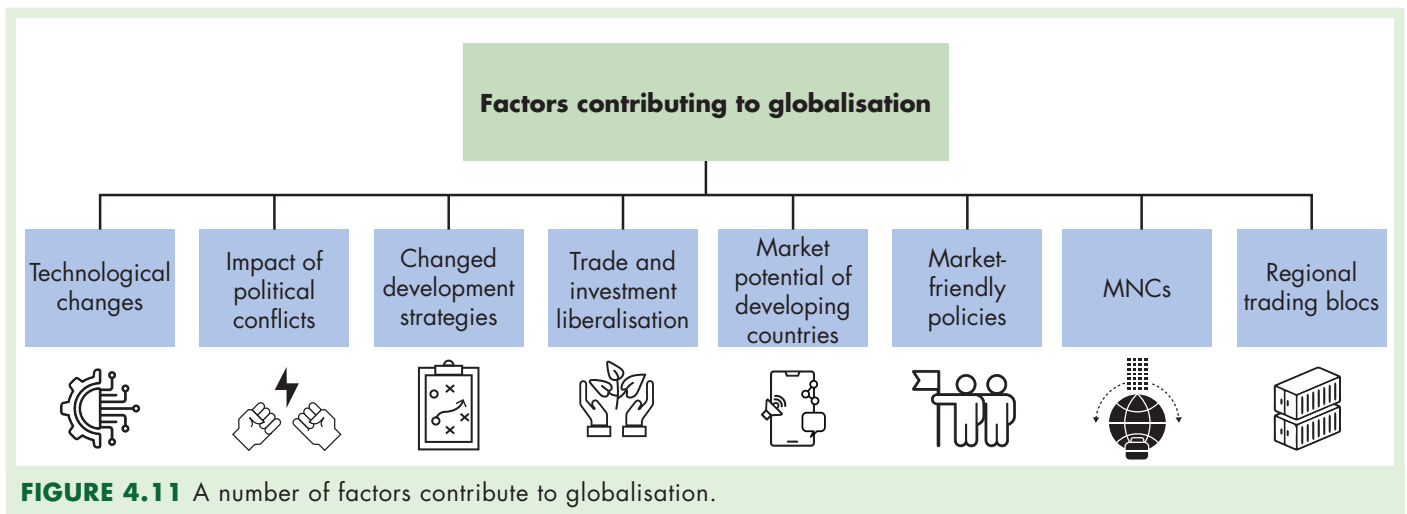
Unilateral retaliation: when a country takes independent action – such as imposing tariffs or sanctions – against another country in response to perceived unfair trade practices or policies, without waiting for international approval or agreements

World Trade Organization (WTO): a multilateral organisation aimed at liberalising world trade and establishing a dispute settlement procedure

KEY IDEA

Globalisation has emerged with the advent of new communication technologies, transportation technologies, the activities of MNCs and the growth of worldwide consumer cultures.

The globalisation of the world economy and international business have been facilitated by a variety of technological, economic and political developments over the past four decades. The move to free trade is one of these factors, and this is discussed more fully in Chapter 5.



4.4.1 Technological changes

Dramatic improvements in transport and communication technologies have significantly reduced the cost and time involved in moving products, capital, people and ideas across borders. Advanced technologies – for instance, AI, automation and cloud computing – now allow firms to manage and coordinate the production and marketing activities of their globally dispersed affiliates more efficiently. These tools enable better demand forecasting, logistics optimisation and enhanced global marketing.

The rise of e-commerce platforms, along with innovations in communication technologies, has opened new international business opportunities, including international financial services, digital marketing and cross-border retailing. Improved transport technologies – such as containerisation, electric vehicles and low-emission ships – have made global logistics more efficient and environmentally sustainable.



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FIGURE 4.12 Technologies have significantly reduced the cost and time involved in moving products across borders.

Firms can achieve significant production and marketing efficiencies by locating stages of the production process in low-cost countries and leveraging economies of scale to supply standardised products to multiple markets. The adoption of 5G, blockchain and Internet of Things (IoT) technologies further shortens supply chains by enabling real-time tracking and greater transparency, allowing firms to deliver products faster and more reliably.

The importance of resilient supply chains has also grown, with firms increasingly adopting **reshoring** or nearshoring strategies to reduce dependence on distant suppliers and to mitigate risks posed by global disruptions.

4.4.2 Impact of political conflicts

The world economy is increasingly divided by political conflicts, with major events such as the Russia–Ukraine war and USA–China tensions reshaping global trade. Sanctions and supply chain disruptions, particularly in energy and agriculture, have highlighted vulnerabilities in international trade. Growing **protectionism** and a shift toward **regionalisation** are leading countries to focus more on self-sufficiency and strategic alliances. While peaceful regions still support trade, the global landscape is now more fragmented, with nations prioritising resilient supply chains and reducing dependence on politically unstable areas to lessen potential risks arising from conflicts and disruptions.



FIGURE 4.13 The world economy is increasingly divided by political conflicts.

4.4.3 Changed development strategies

Since the 1980s, economies in Central and Eastern Europe, China and Vietnam have transitioned to market systems, fostering private enterprise and attracting international business. More recently, emerging markets such as India, Indonesia and Sub-Saharan Africa have become new hubs for global growth, driven by digital economies and green energy initiatives. The economic success of the **export-orientation strategies** of South Asia continues to influence global trade, while the rise of technology and innovation accelerates development. This development model contrasts with the more insular and inward-looking **import-substitution strategies** to which some countries (such as India, Brazil and Indonesia) have returned, particularly in response to recent global disruptions such as the COVID-19 pandemic, geopolitical tensions and growing concerns about supply chain vulnerabilities.

4.4.4 Trade and investment liberalisation

Governments impose barriers on the free flow of trade and investment for many economic, social and political reasons. Tariffs, quotas, licences and limits to the transfers of foreign exchange are the more obvious cross-border barriers to trade and investment. Less transparent barriers are government policies and regulations that can give preferential treatment to domestic business over foreign business. Examples include government purchasing policies, labelling regulations, health and safety standards, foreign ownership limits, and authorisation and reporting procedures. Lack of **transparency** adds to the uncertainty of doing business in a foreign country.

International trade negotiations have shifted away from those conducted through the World Trade Organization's stalled Doha Round (which was launched in 2001 with the aim of lowering trade barriers and improving trading prospects for developing countries). Countries are increasingly focusing on bilateral and regional trade agreements, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP). While tariff barriers remain low in most developed countries, rising protectionism and non-tariff barriers (for example, regulations and subsidies) have reshaped trade dynamics, especially in sectors such as agriculture and technology. Recent agreements have focused on issues such as digital trade, data privacy and sustainability. Regional **bloccs** and new trade deals – such as post-Brexit UK agreements – continue to drive trade liberalisation, while environmental standards and environmental, social and governance (ESG) commitments play an increasing role in negotiations.

4.4.5 Market potential of developing countries

The market potential of developing countries continues to grow, as emerging economies such as China, India and Indonesia expand their influence in the global economy. While China has not yet overtaken the USA in overall GDP, it remains a key economic player. Rising middle-class consumption in these markets offers significant opportunities for businesses, particularly in digital trade and consumer goods. However, emerging markets face challenges such as inflation and climate change.

Businesses are increasingly integrating sustainability and ESG principles into their strategies to capture the long-term potential of these economies.



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FIGURE 4.14 Emerging markets face challenges such as inflation and climate change.

4.4.6 Market-friendly policies

Governments of developed and developing countries have moved to promote market forces and competition as the means of controlling production, directing resource allocation and promoting production efficiency. Market-friendly reforms include the **privatisation** of government business enterprises (GBEs) and the deregulation of financial, product and labour markets. The privatisation of GBEs in areas such as telecommunications, banks, insurance, transport, ports, and electricity and water supply has attracted FDI for two reasons:

- 1 Privatisation is expected to result in improved efficiency and increased investment in these essential supporting facilities and services. More efficient, reliable infrastructure means reduced costs of production, enabling the producers in these countries to be more competitive in international markets. FDI is attracted to a country with efficient, reliable infrastructure.
- 2 Privatisation of former government monopolies has proved an attractive target for foreign investors. For example, the privatisation of telecommunications, banking, railways, postal services, health care and mining has stimulated large foreign capital inflows to countries such as South Africa, Zambia, Brazil, Czechia, Hungary and Poland.

4.4.7 MNCs

Nations benefit not only from the free flow of trade, but also from the free flow of investment. Foreign investment has increased significantly since the turn of the century. It has increased at a faster rate than foreign trade. The process of globalisation and the growth of MNCs have been the stimuli to the growth in foreign investment.

KEY IDEA

Decisions made by governments as well as individual enterprises have a major influence on the pattern of trade. In recent times, MNCs have been particularly influential in determining the nature of trade and economic relations between nations.

An MNC that can locate its different activities in different countries according to each country's **comparative advantage** will achieve **competitive advantage**. To set up a production facility in a foreign location requires investment. While such investment and the globalisation of production are beneficial to the MNC, there can also be both benefits and costs to the host country.

A general concern about MNCs is their threat to the autonomy of the host country's policy makers. The actions of MNCs can undermine the political agenda of the host government when the goals of the MNC and the host government are in conflict. The MNC strategy of transfer pricing provides a specific example.

A transfer pricing example

Assume that an MNC has subsidiaries operating in different countries to achieve comparative advantage. Each subsidiary performs a phase in the production of a product. For example, to produce a computer, a new chip is developed in the USA, the chip is produced in Japan, electronic and electrical components are produced in Korea, the computer with all its parts imported is assembled in Thailand, and the wholesaling, marketing and distribution of the finished product is handled by a firm in Australia. To produce the computer, the MNC is buying and selling products among its own subsidiaries (and, from a nation's point of view,

exporting and importing). It can determine the price at which to buy and sell within its own network of subsidiaries – the **transfer price** is the price at which a firm sells its products to its own subsidiaries. Through transfer pricing, an MNC can move profits around the world from high-tax nations to low-tax nations. Less tax is beneficial for the MNC, but detrimental to the economies where the subsidiaries are located. The tax revenue base is eroded and the export earnings are reduced. Domestic-only companies that cannot access transfer pricing are at a competitive disadvantage.

Because of the costs of foreign investment and the threats of MNC dominance, host governments regulate foreign investment.

In the early 1970s, there were about 7000 MNCs. Today, there are more than 100 000 MNCs, with almost 1 million subsidiaries or affiliates in all industries and all nations. Together, MNCs produce about 50 per cent of global GDP. Each operates in more than one or two countries to maximise profits through generating increased sales, and obtaining inputs into the production process at a lower cost.

4.4.8 Regional trading blocs

Regional trading blocs include the European Union (EU), the Association of Southeast Asian Nations (ASEAN) and the United States–Mexico–Canada Agreement (USMCA). Australia participates in the Asia-Pacific Economic Cooperation (APEC), as well as the CPTPP and the RCEP. These blocs generally reduce trade barriers, fostering inter-nation trade, technology exchange and enhanced international relations. Recent agreements also emphasise digital trade, environmental standards and supply chain resilience, reflecting the evolving priorities of global economic cooperation.

4.4.9 Non-government institutions

The International Monetary Fund

The International Monetary Fund (IMF) was created in 1946 to encourage international cooperation in the monetary field and to assist in the removal of foreign exchange restrictions. In addition, it aimed to stabilise exchange rates and to facilitate a multilateral payments system between member countries. Each member, when joining, was allocated a quota based on its economic strength that determined the size of its cash subscription, its voting power and its drawing rights. The special drawing rights (SDRs) are the reserve assets upon which a nation is able to draw from when required.



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FIGURE 4.15 The IMF

Participants are allocated a volume of SDRs based on their original quota as determined by the IMF. From then on, holders of SDRs may use them to obtain foreign exchange from other participating countries to redeem balances of their own currency held by other countries. Originally, the value of one SDR was directly determined by the value of the US dollar, but the value is now determined by a **basket of currencies**. Under this method, the value of the SDR is equivalent to the sum of 16 currency components broadly weighted according to their countries' relative shares in world trade.

The IMF seeks to establish monetary conditions that would foster foreign trade and investment. While not aimed specifically at MNCs, MNCs benefit from the conditions established, which thus enhance their growth. The IMF can assist by making funds available to support balance of payments issues over the short-term. Funds can also be made available to assist a structural change in the economy. If the IMF were not available, countries would be tempted to impose barriers on trade and investment. Such policies are known as 'beggar-thy-neighbour' policies. The benefits of the liberalisation of trade and investment gained through regional and multilateral cooperation and agreements would be sacrificed.

The IMF closely monitors the world economic and trade situation.

The World Trade Organization



FIGURE 4.16 The WTO is located in Geneva, Switzerland. It is known as the OMC (Organisation Mondiale du Commerce) in French.

The **World Trade Organization (WTO)** was established in 1995, replacing its predecessor, the General Agreement on Tariffs and Trade (GATT). From 1948, the GATT had been the only international instrument laying down trade rules that were accepted by nations responsible for most of the world's trade.

There are currently 166 members of the WTO. The WTO covers trade in goods, services and intellectual property, and sets out rules of trade between nations that are binding on governments. A rules-based system of trade provides security and predictability for international business, including MNCs. An essential part of this system is an effective means of settling trade disputes between members, reducing the need for governments to resort to unilateral retaliation. **Unilateral retaliation** results in the reintroduction of barriers to trade and investment. By providing a more stable trade environment, the WTO has unintentionally facilitated the growth of MNCs as part of the globalisation process.

Essentially, the WTO has three basic functions: to promote free trade as long as it has no undesirable effects, to serve as a forum for trade negotiations, and to provide the means for settling disputes.

The rise of protectionism, trade wars (for example, the USA–China trade war) and challenges such as climate change have added complexities to international trade relations.

The World Bank



FIGURE 4.17 The World Bank

The World Bank grew out of the establishment of the International Bank for Reconstruction and Development (IBRD), which in turn was formed under the same agreement that established the IMF. Whereas the IMF focused on short-term international financial stability, the primary role of the IBRD was to fund long-term development projects.

In more recent times, its focus has been on developing countries.

The World Bank is not just about providing development assistance to the governments of poorer countries. It attempts to create an environment where foreign businesses (including MNCs) are willing to invest in these countries, and the benefits from this investment can be maximised by MNCs. To these ends, the World Bank supports projects that:

- invest in people through improvements in health and education
- protect the environment
- encourage and assist the development of a strong private business sector
- improve the efficiency, quality and reliability of government services
- promote reforms to allow stable macroeconomic conditions and long-term planning
- develop infrastructure that assists in the economic development process.

Such projects can assist MNCs to operate in a country, helping them to establish themselves there and develop their business in the long-term.

Evaluating globalisation

While globalisation has led to increased economic efficiency and expanded consumer choice, its benefits have not been evenly distributed. Using criteria such as economic growth, employment, equity and environmental sustainability, economists continue to assess the trade-offs involved. For example, while some developing countries have experienced rapid growth, others have become increasingly dependent on volatile export markets, or have suffered from the loss of local industries due to import competition.



Trade relations in the wine and dairy industries

Context

Australia's wine and dairy sectors experienced rapid export growth after the signing of the China–Australia Free Trade Agreement (ChAFTA) in 2015. However, in recent years, geopolitical tensions have led China to impose informal trade barriers, including tariffs of up to 218 per cent on Australian wine and disruptions to dairy shipments. These developments have highlighted both the opportunities and risks of trade integration.

Task

Analyse the impact of changing trade relations with China on Australia's wine or dairy industry. Use current trade data and consider patterns in export volume, value, and prices.

Then, **evaluate** whether Australia's reliance on a single dominant export market is an efficient and sustainable strategy. Use at least two economic criteria, such as external stability, employment, efficiency or equity.

CHECK FOR UNDERSTANDING 4.3

- 1 **Explain** the definition of MNC used in this text: 'An enterprise operating in several countries but managed from one (home) country; generally, any company or group that derives 25 per cent of its revenue from operations outside of its home country is considered a multinational corporation.' **Identify** the two essential parts of this definition.
- 2 **Describe** why an open economy's GDP increases faster.
- 3 **Recall** three Australian-owned MNCs and **identify** the industries and the nations in which they operate.
- 4 **Describe** three technological changes that have supported globalisation.
- 5 **Explain** the differences between an import-substitution strategy and an export-orientation strategy.

4.5 Forces driving globalisation

CONCEPTS



Core competencies: characteristics specific to a firm that give it a sustainable competitive advantage

Economic cycle: alternate but irregular periods of prosperity and recession of an economy; also known as a 'business cycle' or 'trade cycle'

Enhanced resource endowments: resources of a nation that are developed by investment, such as human capital and infrastructure

First-mover advantages: the competitive edge gained by being the first company to enter a market

Location economies: production and marketing conditions of a location that a firm can access to give it a competitive advantage

Risk diversification: managing business risks by having multiple options, such as multiple sources of supplies, or selling in multiple markets; avoiding 'putting all one's eggs in the same basket'

KEY IDEA

Businesses can gain by going international in ways that are not always possible in their domestic market and economy.

The business sector is the driving force behind globalisation. The globalisation of markets and production provides an international firm with additional opportunities to achieve and protect profits and sales. These opportunities are not readily available to the purely domestically oriented firm.

Many economic, political and competitive forces ‘push’ and ‘pull’ a firm into international business. The opportunities and threats driving a business to operate internationally flow from the following:

- market expansion
- location economies
- core competencies
- competitive strategies
- risk diversification, including cybersecurity and supply chain management
- government incentives, along with regulatory compliance and sustainability pressures
- technology transfer.

4.5.1 Market expansion

Firms are pulled abroad by the promise of rapidly expanding markets. The home market may be small, with few prospects for sustained economic growth. Small markets can become quickly saturated and very competitive because market growth by one firm will be at the expense of competitors’ shares. Australian firms are located close to the rapidly growing and populous economies of South and East Asia. As GNP per capita increases and the standard of living rises for a significant proportion of the population in these countries, viable market opportunities arise.

Firms can exploit economies of scale with access to larger international markets. They can spread the high fixed costs of capital equipment, research and development (R&D), and advertising and distribution expenditures over a greater volume of output for a global market. The average fixed cost for each unit produced is reduced, and the firm’s competitiveness is improved.

4.5.2 Location economies

Relocating production facilities to a foreign site may keep a firm internationally competitive. It may be more profitable to serve the home, the local domestic and other foreign markets from this location. Taking advantage of **location economies** – the respective natural and **enhanced resource endowments** of foreign countries and regions – reduces costs. Such resource endowments include an abundant supply of skilled labour, extensive R&D activities, well-established technological networks, and efficient and reliable infrastructure (such as telecommunications, transport and energy supply systems).

4.5.3 Core competencies

A firm competes in domestic and foreign markets based on its **core competencies**: characteristics unique to the firm. These characteristics allow the firm to achieve lower costs, gain higher revenues and combat the competitive forces of its rivals. There are many sources of competitive advantage:

- product- and process-technology patents held by the firm
- established brand names and reputations
- market intelligence
- a highly qualified workforce
- economies of scale in production and marketing
- exclusive access to inputs and distribution channels
- management skills and experience
- preferential treatment by governments.

Going international allows a firm to develop competitive advantages, as exemplified by the location economies discussed in the previous section. There are also gains to be made from the experience of managing production and marketing facilities in different countries: the so-called ‘learning curve effects’. Only by going international, however, may the firm be able to exploit its competitive advantage more fully. The domestic market may be too small and become quickly saturated. For example, a telecommunications company that has developed technology, human capital and project management skills when running the domestic nationwide telecommunications system has little opportunity to profit fully from these assets unless its operations become international.

4.5.4 Competitive strategies

The threat of the loss of an existing or potential market can influence a firm to go international. Businesses will often follow major customers abroad, as a means of getting a foothold in a foreign market and also protecting an alliance with a major customer in the domestic market. When a firm is confronted with cheaper imports and cheaper domestic rivals, it can protect its domestic market share by using cheaper foreign production locations as a basis for exporting back to its domestic market. Combating international rivals in their own home markets can also divert financial and managerial resources of the rival firms from the domestic market.

Establishing production facilities abroad enables a firm to protect its foreign markets by overcoming import barriers and guaranteeing essential supplies. Vertically integrating all phases of production from the supply of raw materials to the final production phase is a source of significant market power. Also, a firm that moves quickly into a foreign market gains **first-mover advantages**. These advantages act as barriers to entry for later potential rivals. **First-mover advantages** include:

- establishing a recognised brand name, customer loyalty and product reputation
- learning curve effects, such as the managerial know-how of operating in foreign markets, making contact and building rapport with the relevant officials, and coping with local regulations and business practices
- establishing and monopolising distribution networks and supply chains
- developing excess capacity for the rapid expansion of production when confronted with potential rivals
- gaining access to the best customers and suppliers
- economies of scale.



Case study: Cotton On Group's Global Expansion

Cotton On Group is one of Australia's largest fashion and lifestyle retailers, operating globally with brands such as Cotton On, Typo, Rubi, Supré, Factorie and Cotton On Kids. The company has expanded significantly, with a presence in over 20 countries and more than 1400 stores worldwide.

While originally designing and producing much of its clothing in Australia, Cotton On Group has increasingly outsourced manufacturing to offshore suppliers, particularly in Asia. The company sources garments from countries such as China, Bangladesh and India to take advantage of lower production costs and supply chain efficiencies.

Cotton On Group cites several benefits of its international sourcing strategy, including:

- cost savings from lower wages and production expenses
- flexibility in adapting to changing fashion trends
- increased efficiency in scaling production
- long-term partnerships with reliable manufacturers that understand Cotton On's quality standards.

Despite its global sourcing strategy, Cotton On Group still maintains some local operations, particularly in design, logistics and distribution. Additionally, some specialty items and high-demand products are produced closer to market to allow for faster turnaround times.

By moving much of its production offshore, the company has been able to maintain competitive pricing while expanding its global footprint. However, this shift has also led to a decline in Australian textile manufacturing jobs, raising questions about the impact of outsourcing on local employment.

Questions

- 1 **Explain** 'low value-added' and 'capital-intensive' manufacturing. What resources would be used in low value-added production?
- 2 In which countries is Cotton On Group outsourcing its production?
- 3 Why does local manufacturing of certain products in Australia remain economical?
- 4 What were the motives for the company moving offshore?
- 5 Who in Australia gains and loses from the company's decision to source products overseas?

4.5.5 Risk diversification

An international firm with production and marketing operations across multiple countries can engage in **risk diversification**, allowing it to better manage economic, political and operational risks.

Economic risks – such as those arising from natural disasters or macroeconomic instability (for example, high inflation, currency devaluation or downturns) – are reduced by spreading operations across diverse markets. Countries are often at different stages of the **economic cycle**, so when a recession hits one market, an international firm may be shielded by continued growth in others. However, as globalisation deepens, supply chain interdependence and synchronised business cycles can mean that economic downturns increasingly affect multiple regions simultaneously.

Political risks – including those posed by political instability, regulatory changes or actions by groups such as governments, unions or activist organisations – can also be mitigated by sourcing essential raw materials from various suppliers and maintaining access to multiple markets.

Similarly, operational risks – such as those related to supply chain disruptions, logistical failures, or differences in local infrastructure and labour practices – can be lessened through diversification, although managing operations across multiple countries introduces added complexity and coordination challenges.

4.5.6 Government incentives

Host government and home government policies and regulations can act as either pull or push factors for international firms. Host governments, for example, might offer incentives to attract foreign investment. Incentives include:

- income tax concessions and government grants
- favourable lending policies
- exemption from customs duties on the import of raw materials, technology transfer (see 4.5.7 below), and machinery and parts
- duty-free export of finished products
- assistance with start-up finance and rental of facilities
- relaxation of regulations governing pollution control, industrial relations, wages, and health and safety standards
- relaxation of regulations relating to local content requirements, local ownership, remittances of profits and local employment
- provision of subsidised infrastructure such as energy and transport facilities.

On the other hand, home government policies can push firms to relocate operations offshore, due to factors such as high corporate taxes, stringent competition laws, and increasingly tough regulations on environmental impact and labour practices.



FIGURE 4.18 Government incentives, such as subsidies, can act as either pull or push factors for international firms.

4.5.7 Technology transfer

Technology transfer is a crucial driver of economic integration, enabling countries to share innovations and improve their productivity and competitiveness. It involves the exchange of knowledge, skills and methods related to manufacturing, management, marketing and product design between nations. This exchange accelerates the economic and social development of countries by introducing new technologies that can revolutionise industries.

In recent decades, the development of cutting-edge technologies has been concentrated in the R&D hubs of the USA, Japan and the EU. However, governments worldwide are increasingly encouraging the transfer of these technologies into their economies. Many emerging economies view technology transfer as an essential path to modernisation and global competitiveness. Major technology companies such as Google, Apple and Tesla exemplify how global technology transfer drives economic opportunities, innovation and business growth.

Channels of technology transfer

There are three key pathways by which technology transfer occurs:

- 1 **Trade:** Technology is often embedded in the goods and services traded across borders. Importing high-tech inputs and capital equipment exposes countries to the latest technologies, which local firms can adopt to stay competitive. Exporters must also innovate to meet global standards, thereby engaging in a continuous learning process. International trade helps spread knowledge of new products, enhanced processes and improvements in product quality and design.
- 2 **FDI:** MNCs play a central role in technology transfer by setting up production facilities, bringing skilled managers and technicians to new regions, and sharing the latest technologies with their foreign subsidiaries. For instance, Tesla's global factories and Apple's manufacturing partnerships in Asia illustrate how technology moves across borders. By investing in foreign markets, firms can use advanced technologies to reduce production costs or capture new markets with superior products. Host governments often encourage this by offering financial or tax incentives.
- 3 **Licensing and labour movements:** Firms can license their technology to foreign businesses, allowing them to use proprietary knowledge in exchange for royalties. Similarly, labour mobility allows skilled professionals to move between countries, carrying with them valuable expertise that can enhance productivity in their new locations.

FDI and trade interconnections

FDI, trade and technology transfers are deeply intertwined. FDI can substitute for exports when a company chooses to produce goods in the foreign market rather than exporting from its home country. On the other hand, FDI can also complement exports, especially when firms export high-value components or technology-intensive products to support their foreign operations. For instance, establishing a semiconductor production plant in a foreign market might require importing advanced machinery and employing home-country technicians to manage the complex processes.

The service sector also benefits from this interconnectedness. Firms that provide services like banking, broadcasting or advertising often need to establish a commercial presence in foreign markets through FDI, which also facilitates technology transfer. This global movement of technology enhances economic interdependence, with national economies becoming increasingly reliant on each other's innovations.

Impact of the Internet and e-commerce

The Internet has significantly accelerated technology transfer, allowing information, ideas and intellectual property to be shared instantaneously across the globe. Digital communication networks have created new opportunities for firms, governments and individuals to connect, collaborate and exchange knowledge. In addition, the growth of e-commerce has facilitated the global transfer of goods and services, supported by the digital infrastructure.

The digital economy has grown exponentially. The global market for information and communication technologies (ICT) is now worth over an estimated US\$6 trillion. This rapid

expansion highlights the increasing role of technology in economic globalisation and how digital platforms are reshaping global trade.

Through these processes, technology transfer continues to play a pivotal role in fostering global economic integration, driving innovation and enhancing international competitiveness.

Costs and benefits of globalisation

Critics argue that globalisation has contributed to wage suppression, job insecurity and environmental degradation in some regions. As well as this, global capital mobility has allowed firms to shift profits to low-tax jurisdictions, reducing government revenue needed for public services.

CHECK FOR UNDERSTANDING 4.4

- 1 **Recall** three examples each of push factors and pull factors that could encourage a firm to go into international business.
- 2 **Describe** the production advantages a firm can gain by setting up operations in a foreign country.
- 3 **Describe** the marketing advantages a firm can gain by setting up operations in a foreign country.
- 4 **Explain** how each of the following can give a firm an international competitive advantage: established brand name, patents, highly skilled workforce and economies of scale.
- 5 Why would a firm strive to be the first entrant into a foreign market? Are there any risks involved in being the first mover?
- 6 **Explain** three types of government action that could push or pull a firm into international business.
- 7 **Describe** what technology contributes to economic and social development.
- 8 How is technology transferred from one country to another?
- 9 **Explain** how FDI can:
 - a substitute for exports
 - b complement exports.
- 10 Outline how the trade in technology can be highly commercially beneficial.
- 11 **Evaluate** the impact of globalisation on equity and employment outcomes in one developing country.

R 4.1 Terminology

Select the correct term from the list below that describes each statement.

A Supply chain	F Globalisation
B Risk diversification	G Location economies
C Multinational corporation (MNC)	H Trade intensity
D Transfer price	I Competitive advantage (of a firm)
E World Trade Organization (WTO)	J Capital flow
- 1** The price charged for goods by one subsidiary of a multinational corporation to another subsidiary of the same company in another country
 - 2** A measure of economic integration based on the ratio of trade (the sum of exports and imports) to output
 - 3** The system of organisations, people, activities, information and resources involved in moving a product or service from supplier to consumer
 - 4** Managing business risks by having multiple options, such as multiple sources of supplies, or selling in multiple markets; avoiding 'putting all one's eggs in the same basket'
 - 5** A characteristic specific to a firm that makes it competitive in the marketplace; for example, a lower-cost producer, an established brand name or an innovative product
 - 6** The growing integration of national economies to form a single interdependent global economy
 - 7** The movement of money for the purpose of investment, trade or business production
 - 8** A multilateral organisation aimed at liberalising world trade and establishing a dispute settlement procedure
 - 9** An enterprise operating in several countries but managed from one (home) country
 - 10** Production and marketing conditions of a location that a firm can access to give it a competitive advantage

R 4.2 Multiple-choice questions

Select the correct response to each of the following:

- 1** Globalisation of production is:
 - A** moving production offshore to achieve first-mover advantages.
 - B** moving production offshore to reduce the risk of exchange rate changes.
 - C** dispersing the different phases of production to more than one country.
 - D** dispersing the different phases of production to different foreign locations to reduce management costs.
- 2** Which of the following has played a significant role in the expansion of international business?
 - A** advances in information and communications technology
 - B** liberalisation of trade and investment
 - C** privatisation of government business enterprises
 - D** increased global cooperation through trade agreements

Review of Chapter 4

- 3 A measure of the extent of globalisation of an economy is:
 - A the GDP per capita.
 - B the balance of payments.
 - C trade intensity.
 - D market potential.
- 4 Factors that limit the globalisation of economies include:
 - A cultural differences.
 - B improved communications.
 - C improved transport.
 - D trade liberalisation.
- 5 Which of the following can be constrained by the threat of capital flight?
 - A a higher interest rate
 - B a higher tax
 - C higher environmental standards
 - D all of the above
- 6 The International Monetary Fund:
 - A makes temporary loans of foreign currencies to member countries in financial difficulties.
 - B rations the world's supply of loans to member countries.
 - C controls the exchange rate of each country's currency.
 - D none of the above.
- 7 Which of the following has occurred because of globalisation?
 - A There has been an increase in financial capital flows.
 - B The divergence in world economic systems has increased.
 - C Global poverty has increased.
 - D There has been a trend towards increased regulation in global markets.
- 8 Globalisation has resulted in:
 - A higher economic growth worldwide.
 - B increased trade flows worldwide.
 - C improved living standards worldwide.
 - D reduced environmental impact worldwide.
- 9 What would slow the world's globalisation process?
 - A increases in the number of multilateral trade agreements
 - B increases in the flow of foreign portfolio investment
 - C increases in the volume of goods and services being traded
 - D increases in government business regulations
- 10 Which of the following is not a source of potential advantage for a multinational company?
 - A marketing advantages through the use of well-known brand names
 - B economies of scale in research and development
 - C tax minimisation through careful use of transfer pricing
 - D access to cheaper labour sources within each country because multinational companies can by-pass local trade unions

- 11 Which of the following is an effect of globalisation that reduces trade barriers?
 - A increased volume of foreign direct investment
 - B increased convergence of world economies
 - C increased levels of tariffs
 - D increased rates of investment
- 12 What is a primary function of the World Trade Organization?
 - A promoting free trade
 - B negotiating free trade agreements
 - C resolving trade disputes
 - D promoting international financial stability
- 13 Which of the following best reflects a key indicator of globalisation?
 - A an increase in international trade flows
 - B increased labour mobility within nations
 - C increased activity in the Australian stock market
 - D increased foreign direct investment
- 14 Which of the following organisations is most likely to act if a nation experiences a sudden financial crisis?
 - A the World Bank
 - B the International Monetary Fund
 - C the World Trade Organization
 - D the United Nations
- 15 Which of the following best describes an effect of globalisation?
 - A There has been an increase in the level of global poverty.
 - B World economic systems are growing further apart.
 - C Foreign direct investment flows have increased.
 - D Markets are increasingly being more regulated.

R 4.3 Short response questions

- 1 **Recall** two essential elements of the definition of 'multinational corporation'.
- 2 **Describe** two indicators of the level of globalisation in the world.
- 3 **Describe** the role of the World Bank.
- 4 **Describe** the role of trade flows in the globalisation process.
- 5 **Explain** the role of two digital innovations in driving the process of globalisation.
- 6 **Describe** three factors that have led to the increase in global trade flows.
- 7 **Describe** three main factors contributing to the growth of multinational corporations.
- 8 **Describe** the role of the International Monetary Fund.
- 9 **Recall** three factors contributing to the growth of globalisation.
- 10 **Explain** how natural factor endowments contribute to the growth of multinational corporations.

R 4.4 Activities

- 1 Investigate the activities of five of the world's largest multinational corporations and how they operate in the global economy:
 - **Amazon** – a global e-commerce and technology giant, leading in online retail, cloud computing and artificial intelligence
 - **Tesla** – a pioneer in electric vehicles and renewable energy, driving innovation in sustainability and autonomous technology
 - **Apple** – one of the world's most valuable technology companies, known for its global supply chain, consumer electronics and ecosystem of services
 - **Nestlé** – a major food and beverage company with brands such as Nespresso, KitKat and Purina, operating in more than 180 countries
 - **McDonald's** – The world's largest fast-food chain, with over 40 000 restaurants in more than 100 countries, adapting to local markets and sustainability challenges

Research each company's key industries, global reach and strategies for growth, sustainability and innovation.

Guiding questions

- a In which industries does each company operate, and what are their key products or services?
- b How do these companies manage their global supply chains and operations?
- c What strategies do they use to expand and compete in different markets?
- d How do they address sustainability and corporate social responsibility in their operations?
- e What are some challenges they face in the global economy, such as regulation, ethical concerns or geopolitical risks?

R 4.5 Investigation – research topics

- 1 **Evaluate** the following statement: 'Economic globalisation will inevitably result in national economies becoming subservient to multinational corporations.'
- 2 The process of globalisation has increased very rapidly. Are these changes occurring across the global economy or only within a region or group of economies? Are there special economic events that have caused this? Have government policies contributed to this? Who will be the winners and losers of this process?
- 3 **Analyse** the shift towards a more integrated and interdependent global economy.
Evaluate the shift from the perspectives of the consumer, the worker, the company and the environmentalist.
- 4 Debate one or more of the following statements.
 - a 'Globalisation will inevitably see some nations deciding to amalgamate into one larger nation.'
 - b 'The benefits of globalisation to the world outweigh the costs of globalisation.'
 - c 'Multinational corporations improve a country's standard of living.'
 - d 'All nations benefit from globalisation.'
 - e 'Less-developed countries have no choice but to participate in the globalisation process.'

Chapter

4

Economics in Action worksheets:

4.1 Case study: Cotton On Group's Global Expansion

 Nelson MindTap

To access resources above, visit
cengage.com.au/nelsonmindtap



5

Trade policy

This chapter examines the issues of free trade and protection, free trade agreements, and bilateral, regional and multilateral trade agreements. It asks you to consider what is the best approach for Australia with regard to trade policy.

Focus questions and inquiries

- Should trade be free or should it be fair? What are the forces driving Australia's trade policy?
- Are the current methods of trade protection justifiable in today's economy?
- Does Australia benefit from bilateral, regional and multilateral trading agreements?
- Should Australia aim for greater trade liberalisation, or continue with existing trade policies?

This chapter will examine:

- free trade
- methods of trade protection, including tariffs and non-tariffs barriers
- arguments for and against protectionism and trade liberalisation
- Australia's trade agreements
- the contemporary role of free trade agreements.

5.1 Free trade, investment and protection

CONCEPTS



Absolute advantage: the ability of a nation to produce commodities more efficiently than another nation

Comparative advantage: the ability of a nation to produce a product at a lower opportunity cost of production than another nation

Competitive advantage (of a firm): a characteristic specific to a firm that makes it competitive in the marketplace; for example, a lower-cost producer, an established brand name or an innovative product

Competitive advantage (of a nation): trade advantage obtained through the capacity of a nation's industries to innovate and upgrade

Export promotion: assistance provided to domestic firms enabling them to locate and obtain foreign markets for their goods and services

Fair trade: trade of exports and imports in which government actively intervenes to offset what is considered to be unfair competitive practices by foreigners; for example, the abuse of monopoly power, exploitation of workers or excessive import barriers

Free trade: trade of exports and imports in which government exerts little influence on the decisions of private firms and individuals; competitive market forces determine trade patterns

Free trade agreement: an agreement between nations to allow the unimpeded passage of goods between the nations

Globalisation: the increasing interconnectedness and interdependence of economies, businesses and people across the world, driven by trade, investment, technology, and the movement of people and ideas

Multinational corporation (MNC): an enterprise operating in several countries but managed from one (home) country; generally, any company or group that derives a quarter of its revenue from operations outside of its home country is considered a multinational corporation

Protection: any policy implemented by government to provide domestic producers with an artificial advantage over foreign competitors

Trade liberalisation: the process of reducing or removing barriers to trade – such as tariffs, quotas and import restrictions – to encourage free trade between countries

KEY IDEA

There are a number of theories to explain the benefits of international specialisation and free trade.

In Chapter 1, we developed the principles of **absolute** and **comparative advantage**. Both of these principles showed how, through specialisation and unrestricted trade, global resources could be used more efficiently. In simple terms, we were developing the concept of **free trade**.

Free trade exists when trade between nations occurs without government interference and is determined by competitive market forces. The outcome of free trade is that nations specialise in those areas of production in which they have either comparative or **competitive advantage**, ensuring an overall efficient use of resources. A nation wishing to enter a world market for a product must be able to compete against existing producers without any artificially induced advantages.

KEY IDEA

Advancements in digital technology, automation and artificial intelligence have reshaped Australia's comparative advantage, complementing its traditional strengths in primary industries.

The comparative advantage a nation holds may shift over time. Australia's comparative advantage for many years lay in the production of primary products. Australia still holds a strong comparative advantage in primary products, particularly in mining (for example, iron ore, coal and liquefied natural gas), agriculture (for example, wheat, beef and wine) and other resource-based exports. However, as technology has advanced, Australia has also developed competitive strengths in the digital economy. Innovations in electronic technology have enabled Australia to build expertise in sectors such as education, software development, financial technology, cybersecurity, renewable energy technologies and health research, further diversifying the nation's economic strengths.

What gives a country the comparative advantage? The source of comparative advantage may be the nation's natural resource endowments, such as an abundant supply of labour or agricultural land. Comparative advantage may also be derived from created or acquired resources, such as efficient infrastructure, technology, highly skilled labour, intellectual property and highly innovative products. Firms that are located in these countries and can use these resources gain a **competitive advantage** in world markets. Competitive advantage can arise from having a skilled workforce, a highly competitive market structure, very customer-oriented products, and a support structure of local suppliers and research and development facilities. A **multinational corporation (MNC)** that can locate its different activities in different countries according to each country's comparative advantage will achieve competitive advantage.

KEY IDEA

Decisions made by governments as well as by individual enterprises have a major influence on the pattern of trade. In recent times, MNCs have been particularly influential in determining the nature of trade and economic relations between nations.

Nations benefit not only from the free flow of trade, but also from the free flow of investment. Foreign investment has grown significantly over the past two decades, outpacing the growth in international trade. The process of **globalisation** and the growth of MNCs have been the stimuli to the growth in foreign investment.

Refer back to Chapter 4 at 4.4.7 for a discussion about the impact and effects of MNCs. As explained in that section, because of the costs of foreign investment and threats of MNC dominance, host governments regulate foreign investment. These regulations establish barriers to the free flow of foreign investment. Organisations such as the Organisation for Economic Co-operation and Development (OECD), and regional economic groups such as the European Union (EU) and the Asia-Pacific Economic Cooperation (APEC) forum, have argued for the removal of many of these barriers to foreign investment.



FIGURE 5.1 The OECD has argued for the removal of barriers to foreign investment.

In the real world, international trade patterns are far removed from those suggested by the concept of free trade. Markets are frequently distorted by the protective behaviour of governments. **Protection** refers to any government policy that gives local producers an artificial advantage over foreign competitors. Governments implement various measures to ensure that domestic industries survive against foreign competition and even compete in world markets. This is usually done with the full knowledge that, without protective measures, many such industries would cease to exist. Protection enables domestic production to substitute for imported production.

5.1.1 Context of Australia's trade policies

Australia has historically been classified as a protectionist nation, particularly in the post-World War II era until the 1970s and 1980s. High tariffs and quotas were imposed on imported goods to protect domestic industries. There are numerous reasons for this. First, because of our geographical isolation, transport costs have been a significant factor for Australian manufacturers to contend with. Second, our relatively small population has meant that producers have been unable to achieve the economies of scale that are available to foreign producers. Domestic industries may also be assisted by **export promotion**. Subsidies and concessions were offered to industries that compete in world markets, though direct subsidies are less common today.

Figure 5.2 lists various export promotion methods. Because such measures tend to offset true production costs, they must be seen as devices that give our producers an artificial advantage over foreign producers.



When governments adopt programs to protect domestic industries from imports and promote their exports, the justification is often expressed in terms of **fair trade** or creating a 'level playing field'. Industry groups and governments are concerned that domestic import-competing firms and exporters are victims of the unfair practices of foreign governments and firms. They might accuse foreign governments of excessively subsidising politically powerful industry groups, failing to stamp out child labour or condoning damaging environmental practices. Local industries, therefore, feel justified in seeking protection. To many, however, it seems they are merely seeking protection from foreign competition.

Since the 1980s, Australia has significantly reduced its protectionist policies. There has been a steady move towards **trade liberalisation**, with reductions in tariffs and trade barriers. Australia is now recognised as a more open economy, and participates in various **free trade agreements**. This shift has been aimed at enhancing international competitiveness and integrating more with the global economy.



FIGURE 5.3 Subsidies, such as those in agriculture, are a form of export promotion.

iStock.com/Elmar Gubisch

CHECK FOR UNDERSTANDING 5.1

- 1 **Recall** three benefits of free trade.
- 2 **Explain** the difference between natural resources and created resources.
- 3 **Describe** what gives a firm a competitive advantage.
- 4 **Explain** why governments might implement protectionist measures, even when economic theory supports free trade.
- 5 **Recall** four ways in which a government can promote exports.

5.2 Methods of protection

CONCEPTS

Embargo: a total ban on either the import or export of a commodity

Foreign exchange control: a limit on imports achieved by the central bank restricting the foreign exchange made available for import transactions or altering the price of the foreign exchange

Government procurement policies: government policies that give preference to local producers when purchasing supplies and equipment

Import licensing: a procedure used to limit the number of importers

Import quota: the specification of how much of a commodity may be imported into a country

Non-tariff barriers: barriers to trade other than tariffs; for example, quotas, licences and technical specifications

Quarantine regulations: regulations to control the entry into a country of certain commodities considered to pose a degree of risk

Sanctions: restrictions or penalties imposed by one country (or group of countries) on another to influence its behaviour

Subsidy: a grant paid by governments to domestic producers to allow them to sell their products at less than marginal cost

Tariff: a tax imposed on imported commodities

Technical specifications: production or quality standards that are specific to a country, and therefore act as a protective device against imports

Voluntary export restraints (VER): the voluntary restriction of exports to another country to a pre-specified amount

KEY IDEA

Various types of protectionist measures are instituted to protect the domestic economy.

Governments around the world employ various methods to protect their domestic industries. Some of these methods are direct and obvious, while others are indirect and somewhat less than obvious. In deciding whether a particular government-implemented measure has protective effects, it is important to examine the extent to which the measure favours domestic producers. Furthermore, we are interested in the overall effects. On whom does the cost burden of protection fall? What are the opportunity costs of protection? Is the protective measure in use the most efficient, or is there a better alternative?

5.2.1 Tariffs

Tariffs are perhaps the most common protective instrument. A tariff is an indirect tax levied on a given import when it enters a country. While tariffs provide revenue for governments, a more important effect is that they increase the price of imported commodities to encourage consumers to buy locally produced commodities. Consumers who persist in buying the imported commodity are compelled to pay the landed cost of the item plus the tariff levied by government, thus making the cost of the good dearer and reducing the purchasing power of the consumer. Tariffs redistribute income from consumers to the government and to entrepreneurs and workers in protected industries. An example of a tariff is the customs duty placed on the importation of luxury motor vehicles.



In recent years, in line with Australia's shift towards trade liberalisation, it has been the policy of successive Australian governments to reduce the rates of tariffs levied on imports. This is also in line with the policy of the World Trade Organization (WTO) and many of our trading agreements, especially bilateral, regional and multilateral trade agreements. Figure 5.5 shows the diminished rate of tariffs from 1995 to 2020.

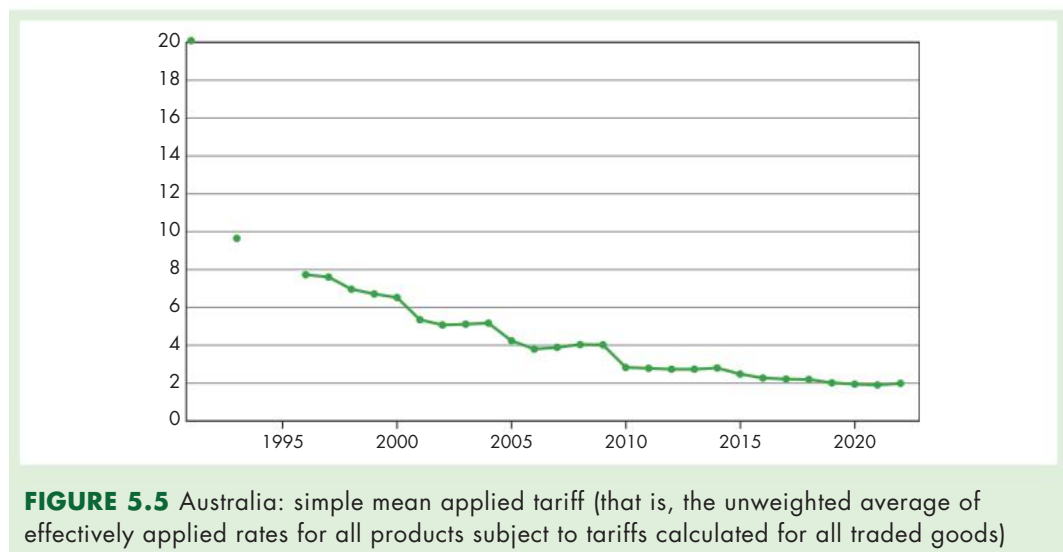


Figure 5.6 shows the impact of tariffs on a demand and supply model.

- Figure 5.6(a) shows the position before tariffs are introduced. At the Australian producer price, Australian suppliers are only willing to supply at Q_1 . At this point, demand outstrips supply and a shortage occurs. At the world price, Australian producers are willing to supply even less, at Q_s . Australian consumers seek the quantity demanded at Q_d . This shortage can be resolved through imports.
- In Figure 5.6(b), the tariff raises the price to the world price plus tariff, which decreases the level of imports. At this higher price, Australian producers will supply more product. The difference is the coloured square, which represents the tariff revenue that the government receives.

You can therefore see that with tariffs, the quantity of imports decreases.

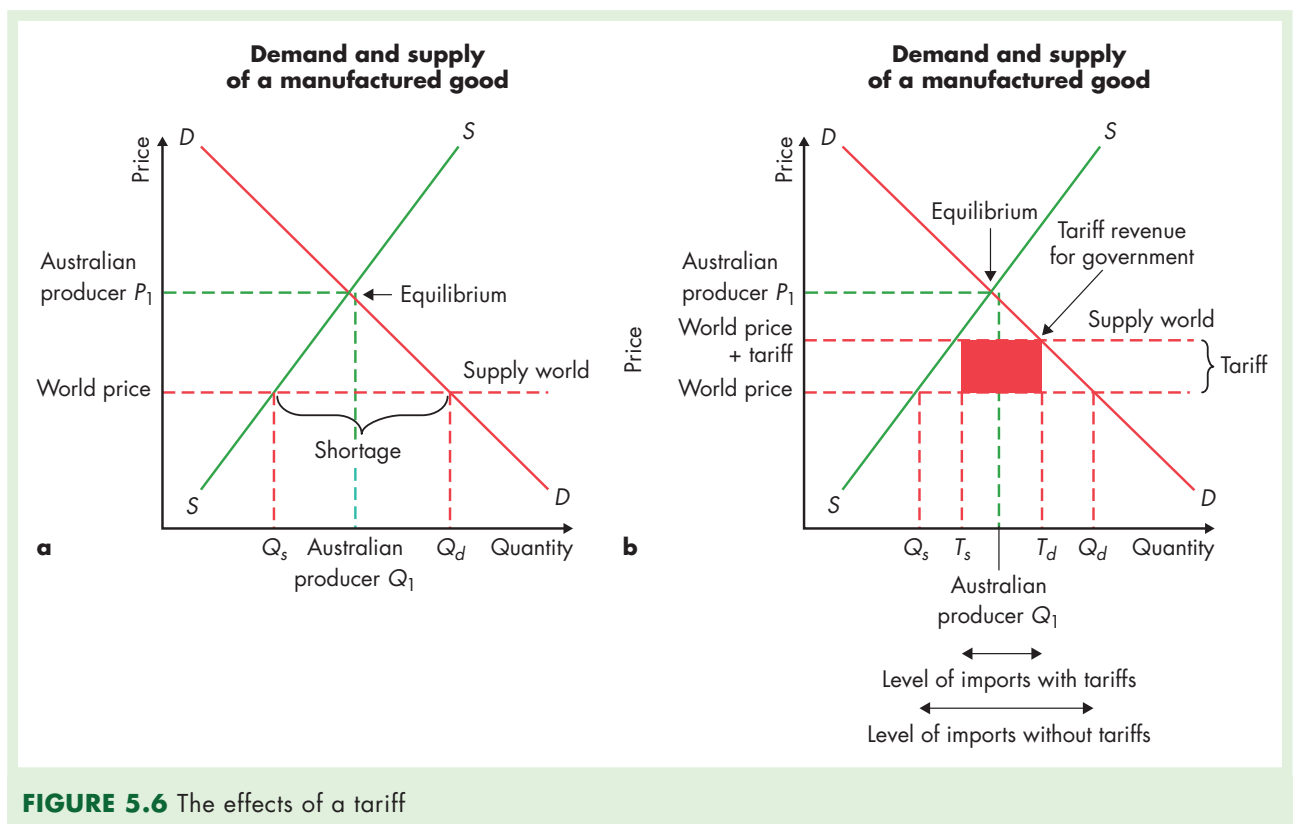


FIGURE 5.6 The effects of a tariff

ECONOMICS DATA



Use the Internet to find the most recent data showing Australia's simple mean applied tariff. Trading Economics is a useful site.

Has the trend to lower levels of tariffs continued? Do you think that Australia will ever reach 0 per cent tariffs on all products? Justify your response.



Weblink
Trading Economics

5.2.2 Import quotas

Import quotas are **non-tariff barriers** that are frequently used in addition to tariffs. Tariffs discourage imports by affecting price. They are imposed particularly on imports for which there is relatively inelastic demand. In such cases, the increased price of a commodity resulting from the imposition of a tariff may be insufficient to deter consumers. A quota stipulates how much of a commodity is allowed to be imported. The result of a quota is that supply of an imported commodity is limited, which may mean that potential customers are forced to wait for delivery of the product. This often acts as a deterrent and encourages consumers to buy a locally produced substitute instead. Furthermore, the short supply of the imported good may cause its price to rise. An example of a quota is the quota applied to luxury motor vehicles such as Ferraris.

Figure 5.7 shows the effects of a quota. Assume that the product is imported blue vein cheese. Figure 5.7(a) shows the original situation. DD is domestic demand and SS is domestic supply. The foreign supply curve is FF – a perfectly elastic supply curve. At the price OF , OX is demanded. Australian domestic producers supply OH , and HX is supplied by the overseas market. Domestic consumers purchase blue vein cheese at price OF , well below the domestic equilibrium of OP .

Figure 5.7(b) shows the impact of a quota on imports. Imports are reduced from HX to H_1X_1 , increasing the domestic price from OF to OP_1 . Domestic demand is reduced to OX_1 and Australian producers now supply OH_1 and foreign producers H_1X_1 .

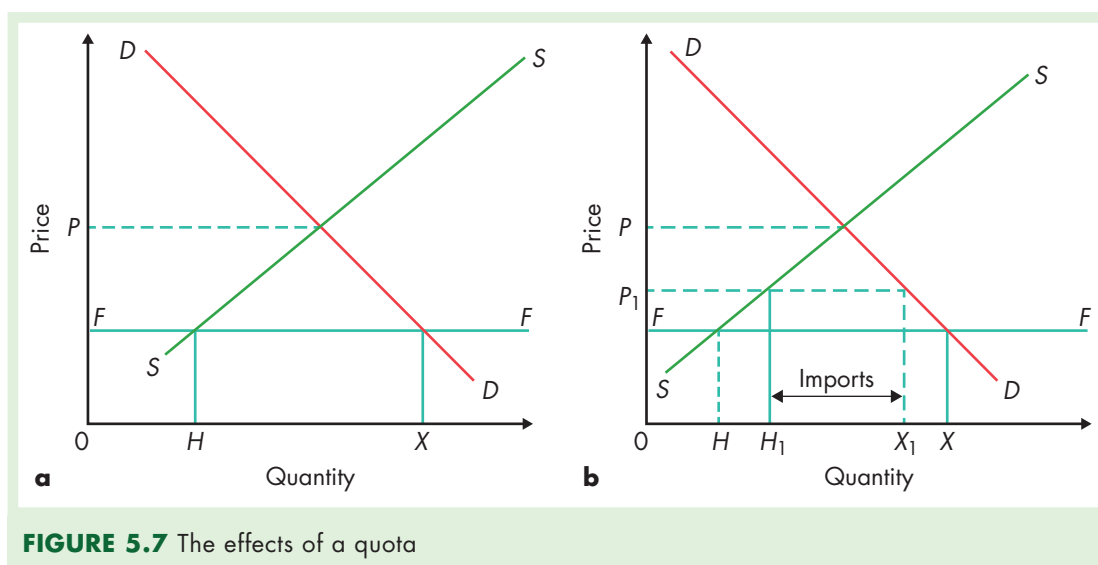


FIGURE 5.7 The effects of a quota

5.2.3 Import licensing

Import licensing is a quantitative protective measure similar to import quotas. While there is no general licence required for importing into Australia, Australian customs will need to clear the goods on import. The essential difference between an import quota and an import licence is that with import quotas, an importer can still bring in 'over-quota' stock, but with import licensing, the importer is strictly limited to the stipulated volume. The use of import licences is really a rationing system by means of which the number of importers and the volume of imports can be controlled. If a substantial fee is charged, import licences can generate government revenue – an extra cost that is often passed on to consumers.

Import licensing requires bureaucratic intervention (see also 5.2.6). In some countries, it is a known source of bribery and corruption between firms and government officials.

5.2.4 Subsidies

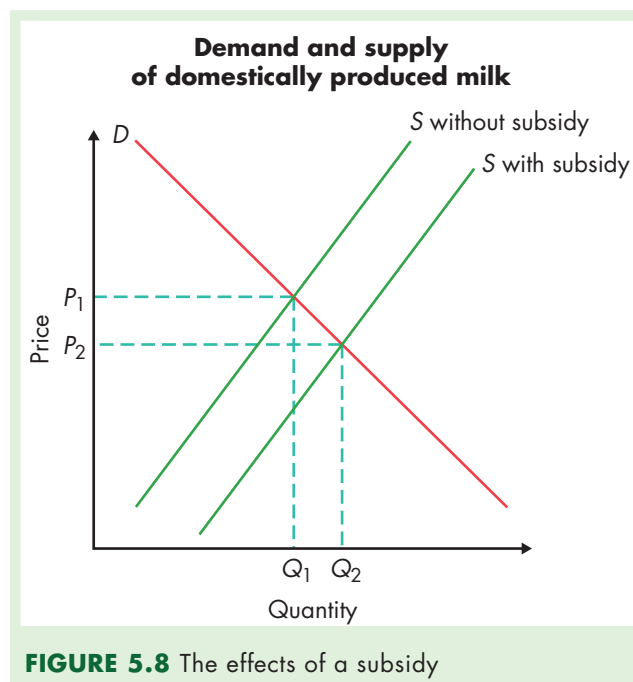
A **subsidy** is a grant paid to a producer by the government to offset production costs. This allows the product to be sold at a price that is lower than it would be if no subsidy were paid. Consequently, the product can be sold at a price that does not reflect true production costs. Subsidies are paid from general government revenue, which means that all taxpayers share the cost burden of providing this protective device. The beneficiaries are largely those employed in the industry and the consumers of the subsidised product. Subsidies provide direct assistance to exporters, enabling them to be more competitive internationally.

Subsidies are a common tool used by governments in various sectors. For instance, there are several examples of subsidies provided by the Australian Government to support the agricultural sector. They are designed to help farmers manage risk, improve productivity and maintain competitiveness in global markets. Two notable examples are set out below:

- The On-Farm Emergency Water Infrastructure Rebate Scheme allows farmers to invest in essential water-saving infrastructure – such as dams, pumps and piping systems – which are crucial in drought-prone regions.
- The Fuel Tax Credit Scheme provides rebates for the fuel used in machinery and trucks for farm operations. These lower the overall operational costs of production and transport, helping farmers remain competitive in domestic and export markets.

In addition, the dairy industry benefits from research and innovation funded through the Dairy Australia research and development corporation. The research focuses on improving productivity, sustainability, and resilience to changing climate conditions. New technologies and practices developed through this research have helped dairy farmers increase milk yields and efficiency, while reducing costs.

Figure 5.8 shows the impact of a subsidy on domestically produced milk. In this scenario, supply increases, as the costs of production are lower. With the subsidy, the supply of milk will increase, and consumers will benefit from a fall in the price of milk. The government pays the subsidy, which is a burden on its budget.





Draw a series of supply and demand graphs to illustrate how a subsidy could act as an effective form of protection in the clean energy sector. Write a paragraph to justify your reasoning.

5.2.5 Embargoes

An **embargo** is an extreme form of quota. It is a total ban on the import or export of a commodity. When an embargo is applied to imports, the Australian consumer has no choice other than to pay a virtual monopoly price for the local product. Embargoes are usually applied for non-economic reasons, such as health and safety, moral issues and foreign relations policy. An example of an export embargo was the ban imposed on the export of live merino sheep from Australia in 1929, to take advantage of the fact that Australian-bred merinos produced what was considered to be the finest wool in the world. In 1978, the Australian Government lifted the embargo to permit the export of a small flock of merino rams to China.

While embargoes are less common these days, **sanctions** – which can take the form of trade restrictions, asset freezes or travel bans – are widely used in modern foreign policy. Like many other countries, Australia uses targeted sanctions as part of its foreign policy to address human rights abuses, security threats or other international concerns. For example, Australia (along with other countries) has imposed sanctions on North Korea in response to its nuclear weapons program. These sanctions include restrictions on trade, financial transactions and arms, as well as the freezing of assets linked to North Korea's weapons development.

5.2.6 Bureaucratic procedures

Approval procedures, inspection procedures, landing charges and port handling costs can be effective protective devices. Airport taxes and harbour fees all contribute to the freight costs of imported commodities. When these charges are increased, they make the retail price of imports less attractive to domestic consumers. Excessive delays in processing imports for customs purposes, government red tape, inefficient handling facilities and poor security contribute to the cost of importing goods into a country. The combination of all these factors often acts as a deterrent to potential exporters and importers.

While these bureaucratic procedures and costs can act as non-tariff barriers or forms of protectionism, they are not always implemented with the explicit aim of protecting domestic industries. Sometimes, they arise due to inefficiencies, administrative complexities, or legitimate regulatory or security concerns.

5.2.7 Quarantine and health regulations

While designed to halt the spread of disease, such as 'mad cow disease' or BSE (bovine spongiform encephalopathy), **quarantine regulations** also act as a protective device. Trade involving livestock and perishable commodities, such as meat and cheese, is often restricted by such regulations, giving local producers an advantage due to the complexities and costs faced by foreign exporters. From time to time, allegations have been made in foreign markets that Australian beef has been contaminated with chemicals. Rumours of this sort can be extremely damaging to a nation's overseas market.

More recently, the Australian banana industry attacked proposals to permit imported bananas from Asian countries on the grounds that diseases affecting banana trees might enter Australia. In response, the Australian Government enforces strict quarantine procedures on imports from regions where these threats are prevalent. The *Biosecurity Act 2015* (Cth) governs the country's efforts to manage these risks and prevent contamination of local ecosystems and food supplies. The requirement to abide by the labelling regulations of the importing country – for example, the inclusion of health warnings, ingredients and country of production – also adds to the cost of importing products.



ChameleonsEye/Shutterstock.com

FIGURE 5.9 Australia takes its biosecurity seriously

5.2.8 Technical specifications and standards

Technical specifications in the manufacture of goods can act as a protective device. A country may insist on unusual specifications for health or safety reasons. Foreign manufacturers may find it uneconomical to change their production processes to meet such specifications. For instance, Australian motor vehicles are right-hand drive, but vehicles produced in the USA are left-hand drive. This technical difference means that the manufacturers of left-hand-drive vehicles are locked out of the Australian market, unless they are able to modify their vehicles, which can incur considerable costs.



Wisely/Shutterstock.com

FIGURE 5.10 Electrical points are an example of technical specifications, as these are different in various countries. Makers of electrical products are locked out of the Australian market unless they can make these products to Australian specifications.

5.2.9 Voluntary export restraints

A **voluntary export restraint (VER)** is similar to a quota except that it is voluntarily imposed by the exporting country rather than by the importing country. It has similar effects to a quota. A VER is an action by an exporting nation to limit its exports to a foreign market to a pre-specified amount. Why would an exporting nation limit its exports? If a nation's exports are very successful in a foreign market, it can expect considerable resentment from threatened local producers. Politicians may be persuaded to introduce or raise import barriers. The wise strategy for the exporting nation may be to hold back export volumes in order to maintain at least some access to the foreign market. For example, in the late 1970s and early 1980s, Japanese car manufacturers were proving too successful in the huge US car markets, and US industry groups, unions and politicians began lobbying for the imposition of quotas. In 1981, the Japanese Government diffused the issue by imposing VERs on car exports to the USA.

5.2.10 Government procurement policies

Another example of a non-tariff barrier to trade is **government procurement policies**. These may require government departments and business enterprises to give preference to local suppliers when sourcing goods and services. In countries where government enterprises operate services such as transport, communications and energy, the government sector is a huge market. Under procurement policies that favour local firms, foreign firms are virtually closed out of the market.

A recent example of such a policy in action is Queensland's 'Buy Queensland 2023' policy, which emphasises sourcing goods and services locally for the construction and infrastructure sectors. For the Cross River Rail project in Brisbane, for example, local suppliers and contractors were given preference over international competitors, in line with government procurement guidelines. This is particularly relevant, as the state government is one of the largest purchasers of goods and services in Queensland – providing significant opportunities for local businesses, but often making it difficult for foreign firms to compete. Queensland's local content requirements were especially evident in the state's response to economic recovery following the COVID-19 pandemic, when boosting local businesses became a key priority.



Alexander Hogg/Alamy Stock Photo

FIGURE 5.11 The Cross River Rail project emphasised local sourcing of materials.

The 'Buy Queensland 2023' policy also incorporates social and environmental factors, providing encouragement to businesses that offer local employment (including apprenticeships) and promoting sustainable practices.

Such procurement policies effectively act as non-tariff barriers, as foreign firms must either establish local operations or partner with local businesses to meet eligibility requirements, thereby limiting direct competition from international suppliers.

5.2.11 Foreign exchange control

Countries whose central banks fix their exchange rates can use **foreign exchange controls** to restrict imports. The importer of a particular product may be prohibited from buying sufficient foreign currency to finance the import transaction. Alternatively, the central bank may operate a dual exchange rate system – a lower exchange rate for certain imports that it wishes to discourage and a higher exchange rate for favoured transactions, such as debt service payments or oil imports. The lower exchange rate raises the price of the imported good in the local economy, leading to a decrease in the demand for imports and protection for the domestic producers. China is an example of a country that does this.

ECONOMICS IN ACTION



The effects of a tariff

- 1 Figure 5.12 depicts the domestic demand and supply conditions for an importable product; for example, buses. If there were no international trade, buses would sell for P_h in the domestic market. Under free trade, the price of the bus will be the same as the world price, P_w (assuming no transport costs). In the world market, foreign producers are more efficient producers of buses than the domestic producers. With the free trade price of P_w , domestic demand is Od . Some domestic producers can still compete at P_w and the domestic supply is Oa . The difference between domestic demand and domestic supply is made up by the imports from the rest of the world, ad (or AD). A tariff of t dollars on each imported bus is now imposed. The domestic price is now $P_w + t$ dollars. What are the effects of the imposition of the tariff?
- 2 Redraw Figure 5.12 to show the following effects when a nation imposes an import tariff:
 - a The domestic price of the importable product rises.
 - b The domestic consumption of the importable product falls.
 - c The domestic production of the import-competing product rises.
 - d The volume of imports of the importable product falls.



Worksheet
5.1 The effects of
a tariff

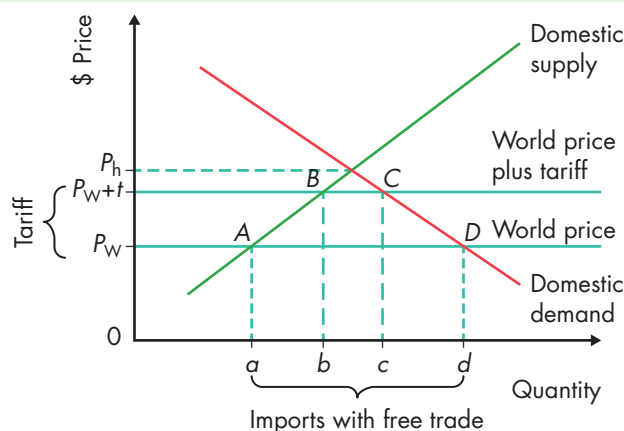


FIGURE 5.12 The effects of an import tariff

The methods of protection are many and varied. Tariffs, subsidies and exchange rate controls work by altering the relative prices of imported goods and services in favour of the domestic producer. Quantitative controls such as quotas, licences, VERs and foreign exchange controls more directly limit the volumes of imports and indirectly affect the relative prices. A greater share of the domestic market is made available to domestic producers.

Tariffs are a reasonably obvious method of protection, but there is a range of regulatory and procedural practices of governments that are less obvious and yet are still effective means of protection. These non-tariff methods of protection include health regulations, product standards, approval procedures, customs inspections and government procurement policies.

CHECK FOR UNDERSTANDING 5.2

- 1 **Recall** three examples of non-tariff barriers and **explain** how each works.
- 2 Define the following terms:
 - a tariff
 - b import quota
 - c embargo
 - d foreign exchange control
 - e government procurement policy
 - f subsidies.
- 3 **Explain** how a tariff works to protect a domestic industry.
- 4 **Describe** how bureaucratic controls and technical specifications can be used to protect a domestic industry
- 5 **Describe** three effects of tariffs.
- 6 **Recall** why a country might want to voluntarily restrict its own exports.
- 7 If a nation wished to restrict the volume of an import with certainty, would it use a quota or a tariff? Why?

5.3 The effective rate of protection

CONCEPTS



Consumption effect: the effect of protection on a nation's consumption patterns

Effective rate of protection: the actual rate of protection given to import-competing industries

Nominal tariff rate: a tariff applied to imported commodities as quoted in tariff schedules (official lists of rates applied to imported goods)

Production effect: the effect of protection on a nation's production patterns

An examination of **nominal tariff rates** does not give a full indication of the actual protection provided to the import-competing industries. This is because many of the materials and components used by industries are also subject to tariffs and other import restrictions. To take both of these effects into account, economists have developed the concept of **effective rate of protection** (often referred to as ‘effective rate of assistance’). The effective rate of protection covers both the protection on goods produced by an industry and the tax effects of tariffs on the materials it uses to produce those goods. The effective rate is, therefore, the net assistance afforded to the production process expressed as a proportion of the activity’s value added (final output less intermediate goods).

For instance, in the 1970s it was estimated that a 35 per cent subsidy provided to the Australian shipbuilding industry was equivalent to a nominal tariff rate of 54 per cent. When value added was assessed and import restrictions on certain intermediate goods were taken into account, the effective protection rate rose to 80 per cent. Finally, when consideration was given to the fact that engines and many other ship parts were imported duty-free, the overall effective rate of protection was estimated to be in the vicinity of 200 per cent.

The effective protection rate is said to determine the production effect of a tariff, whereas nominal rates are said to determine the consumption effect. The **production effect** is the tendency of resources to be attracted to industries that enjoy a high level of effective protection. This effect further accentuates the problem of inefficient resource allocation within an economy. The **consumption effect** is the impact that nominal tariff rates have on consumption patterns. For instance, if nominal tariff rates are increased, there should be a shift in consumption towards domestically produced commodities. If nominal rates are decreased, there should be a shift towards imported commodities. The consumption effect is easily monitored and can be manipulated by government policy. In contrast, the production effect tends to be more difficult to detect since it is not always immediately apparent. Furthermore, it tends to have long-term consequences, since high levels of effective protection attract producers who then become firmly entrenched.

ECONOMICS IN ACTION



How are Australian industries protected?

Compile a list of ten products you use that are produced in Australia. Investigate the types of protection, if any, that are provided for these products. Have these products always had this level of protection, or has it changed over time? What reasons might there be for any changes?

ECONOMICS CHALLENGE



Nominal and effective tariff rates

Consider a leather coat that is manufactured in Australia using imported leather. Under free trade (pre-tariff), a leather coat could be imported for the world price of \$200. The coat uses \$100 worth of leather that could be imported at that price. The Australian-based manufacturer making the coat out of imported leather will have a domestic value added of \$100 (\$200 final product less \$100 of materials).

Continued

Continued

Case 1 A 20 per cent tariff is imposed on imported leather coats and on imported leather. The nominal rate of tariff protection for the domestic manufacturer is 20 per cent. The domestic price of leather rises to \$120 and the domestic price of coats rises to \$240. The value added under protection rises by \$20. The productive activity or 'industry' being protected is the value-adding activity of turning leather into a coat. Protection affords this industry an extra \$20 of value added. Based on the original value added of \$100, this represents a 20 per cent increase in value added. What is the effective rate of protection? (Figure 5.13(a) is the basis for the calculation.)

Case 2 A 40 per cent tariff is imposed on imported leather coats and a 20 per cent tariff on imported leather. What is the effective rate of protection? (Figure 5.13(b) is the basis for the calculation.)

Case 3 Let us suppose that less value is added by the manufacturing process. A \$200 coat is produced using \$150 worth of imported leather. The same tariffs as in Case 2 are applied – 40 per cent on imported coats and 20 per cent on imported leather. What is the effective rate of protection? (Figure 5.13(c) is the basis for the calculation.)

The effective rate of protection is determined by the rates of protection on the final goods and the intermediate goods. It is also determined by the share of the domestic value added. As Case 3 indicates, a small share of domestic value added can mean a considerable level of effective protection. A high level of effective protection is a strong incentive to move resources into the industry.

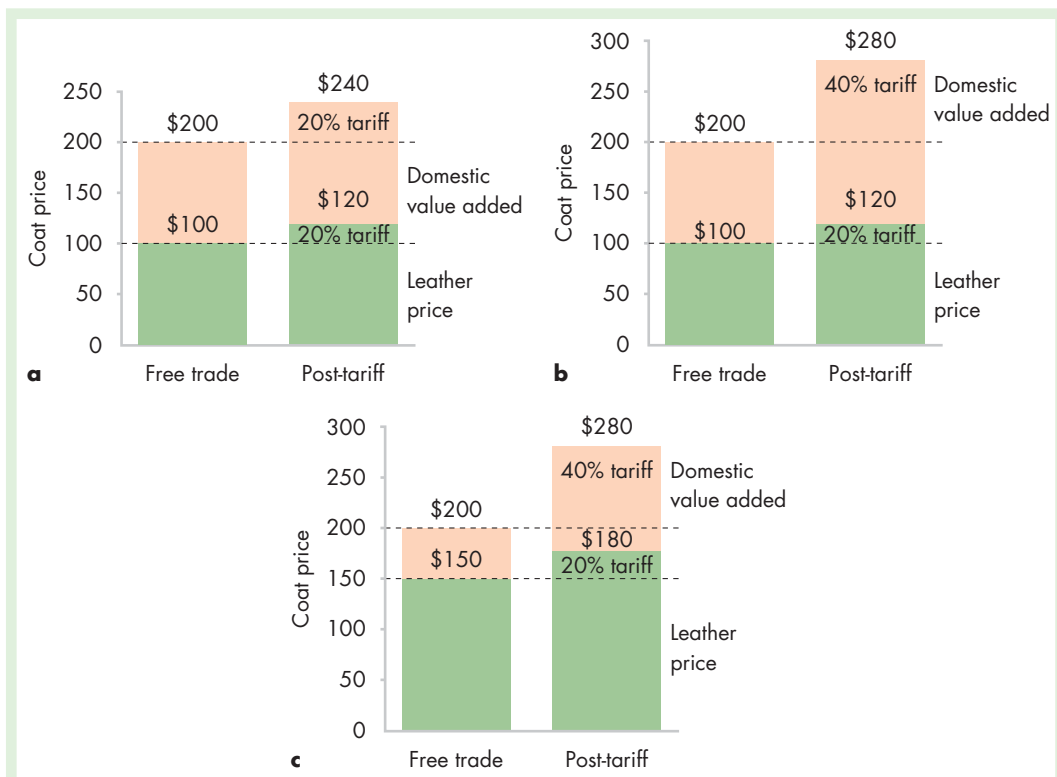


FIGURE 5.13 Effective rate of protection

CHECK FOR UNDERSTANDING 5.3

- 1 Why can the effective rate of protection differ from the nominal rate of protection?

5.4 Benefits and costs of protection

CONCEPTS



AUKUS: a security partnership between Australia, the UK and the USA, announced in 2021

Dumping: the sale of a product in a foreign market at less than production cost

Import substitution: the practice of encouraging the establishment of domestic industries to produce commodities presently imported

Infant industry: an industry in its early stages of development

Redistribution of income and wealth: the reallocation of income and wealth using taxes and other means to transfer money and assets from one group in the economy to another

Restricted choice: a limited range of commodities from which consumers may choose

Self-sufficiency: the ability of a nation to produce sufficient products to meet its own needs from domestic sources

Protection has been a source of debate for many years. Businesses and politicians have developed a set of arguments that have been used to justify protection. A summary of the arguments is set out on the following pages, along with critical examination of each.

FIGURE 5.14 Benefits and costs of protection

Benefits of protection	Costs of protection
Infant industry	Inefficient resource allocation
Improved self-sufficiency and national security	Redistribution of income and wealth
Employment	Higher prices
Low wages abroad	Restricted consumer choice
'Buy Australian Made'	Lower standard of living
Dumping	International ill-feeling
Balance of payments	
Keep money at home	

5.4.1 Benefits of protection

Infant industry

This argument supports the proposal that **infant industries** – that is, industries in their early years of establishment – may experience teething problems and additional costs, and must therefore be protected. Also, as they develop, such industries may generate external or spill-over benefits, such as a more skilled labour force or more research and development opportunities. They may also attract foreign investment. Spill-over benefits justify government subsidies.

However, it is a known economic fact that any business activity, in the beginning, experiences high average costs, which normally decline in the long term as economies of scale and productive efficiency are achieved. Many advocates of the ‘infant industry’ argument tend to overlook this fact. Although there may be justification for some form of government assistance in cases where a market is monopolised by large foreign concerns that maintain barriers against entry, it is important to recognise that the argument favours only temporary protection – during infancy. When an industry has emerged from the infant stage, the argument is no longer valid.

Unfortunately, experience has shown that the biological analogy is not always followed through. Many heavily protected infant industries never develop into self-supporting adult industries. Protected from international competition, there is little incentive for them to strive for improved efficiency and innovation. Their entrepreneurial energies are directed at lobbying governments for more protection, rather than searching for new markets and improved efficiencies.

Improved self-sufficiency and national security

Self-sufficiency has gained renewed attention in recent years, particularly in the context of global disruptions (such as the COVID-19 pandemic), rising geopolitical tensions and supply chain vulnerabilities. The pandemic highlighted Australia’s reliance on imported goods, such as medical supplies and essential technologies, prompting calls for greater self-sufficiency in critical industries. Proponents of the ‘self-sufficiency’ argument maintain that Australia should diversify its domestic production to reduce dependency on other nations, especially in areas related to health, energy and defence.

In the energy sector, for example, Australia has revisited the importance of self-sufficiency in relation to critical minerals such as lithium, cobalt and rare earths, which are essential for modern technologies; for instance, batteries and electronics. Support is increasing for building domestic capacity in these areas, especially to reduce reliance on countries such as China.

National security has also re-emerged as a concern, with the rise of strategic competition in the Indo-Pacific region. Supporters of the ‘national security’ argument believe that Australia must be prepared for potential conflict or economic instability by maintaining robust domestic capabilities in key sectors, such as defence manufacturing, telecommunications and energy. Recent government initiatives – such as **AUKUS** and increased investment in local defence industries – reflect this mindset, emphasising the need for a strong domestic industry to safeguard national security.

While self-sufficiency provides a sense of security, it can also limit the benefits of global trade, including access to new technologies, innovation and cost efficiencies. Some argue that national security might be better ensured by fostering strong international partnerships through trade and investment, as seen in Australia’s trade relationships with countries such as Japan, the USA and members of the EU.

Employment

The ‘employment’ argument is perhaps the most difficult of the protection arguments to refute politically. In recent decades, it has been used extensively in Australia to maintain protection for the textile, clothing, footwear and motor vehicle industries. Protected industries provide employment opportunities for Australia’s labour force. For example, the closure of Australia’s last car manufacturing plants in 2017 sparked national debate over the loss of jobs in traditional manufacturing sectors, highlighting the political sensitivity around employment. In response, the Australian Government has sought to support job creation through initiatives such as the Modern Manufacturing Strategy, which focuses on boosting local production in key areas that include medical products, clean energy and food security.

When economic conditions are depressed and the level of unemployment is high in all sectors of the economy, it is difficult for the government to contemplate complete removal of protection in protected industries. If protection were to be eliminated, how could the government provide employment for workers in industries that would not survive the competition of imports? The ‘employment’ argument takes the short-term viewpoint. If jobs are protected by **import substitution**, they become supported by inefficient industries. In the long term, there is no opportunity for job expansion, and job losses will occur as industries collapse.

Low wages abroad

Because of Australia’s proximity to Asia, the ‘low wages abroad’ argument has been frequently used to justify protection for our domestic industries. It is argued that high labour costs in Australia mean that our producers are unable to compete with products from countries with low labour costs. However, this does not justify protection. What most supporters of this argument overlook is the fact that productivity is one of the determinants of wage levels. In countries where wages are low, we usually find that labour productivity is low. Australia has an infrastructure that permits relatively high levels of productivity, and our workers are in a position to demand relatively high wages to achieve the high standard of living they have come to expect. If a foreign worker produces only one-tenth of what an Australian worker produces in a day, there is no justification for arguing that wage levels should be the same. Also, labour is only one factor of production. Land, capital, skills and enterprise are other factors. As informed by the principle of comparative advantage, Australia should be attempting to compete in world markets, not with labour-intensive goods, but with capital- and skill-intensive goods. The industries producing these goods pay high wages.

‘Buy Australian Made’

Firms and government departments have long promoted slogans such as ‘Buy Australian Made’ and ‘Advance Australia’ in an effort to persuade Australians to buy locally produced commodities. These campaigns appeal to national pride and a desire to protect local jobs and industries. However, while emotionally persuasive, this argument has limited economic justification when viewed through the lens of comparative advantage.



Karolis Kavolelis/Alamy Stock Photo

FIGURE 5.15 The historic ‘Australian Made’ campaign of the 1980s made a comeback during the COVID-19 pandemic.

Dumping

Dumping occurs when a producer sells a commodity in a foreign market at a price that is substantially less than the commodity costs to produce. The effect of such action is that the price of the imported commodity undercuts locally produced substitutes and, therefore, attracts demand. Producers may resort to dumping in order to eliminate surplus stock, as in the case of outmoded clothing or, alternatively, to establish market share or a new brand name. By definition, dumping is an action that can only be sustained for a short time. No producer can continue to sell its products indefinitely at a price that is less than cost, unless subsidised by the government.

Imposing tariffs can be an effective deterrent to dumping – through raising the price of dumped goods, imposing financial penalties, and creating a fairer competitive environment for domestic producers. In 2022, Australia imposed anti-dumping measures on railway wheels imported from China. Australian manufacturers claimed that Chinese railway wheels were being sold at below-market prices, undermining local production. After an investigation, the Australian Anti-Dumping Commission applied duties to prevent further damage to Australia's domestic railway manufacturing industry.

Balance of payments

On occasions when Australia has experienced an adverse balance on current account, it has sometimes been argued that protection levels should be increased to discourage imports and reduce the outflow of payments to foreign producers. However, the 'balance of payments' argument overlooks a very important effect of protection. Protection not only deters imports, but also increases the overall cost structure within the economy, which has the effect of increasing the price of our exports and making them less attractive in foreign markets. For this reason, there is no validity in arguing for protection to overcome balance of payments problems.

Keep money at home

The 'keep money at home' argument is that if a nation exports more than it imports, it will accumulate surplus funds of foreign money and no domestic money will be lost overseas. This argument is false. There is no value in simply holding money. The value comes from spending it. What can be purchased is determined by price. The theory of free trade tells us that we can purchase cheaper and better products by importing. Both exporting and importing add to our economic welfare.

5.4.2 Costs of protection



iStock.com/Sonmez karakurt

FIGURE 5.16 Protection comes with costs.

Most economists accept that protection is a firmly entrenched characteristic of the international economy and they realise that eliminating protection is not a task that can be accomplished overnight. However, economists continually confront governments with arguments that highlight the undesirable features of protection, with the hope that protective barriers may at least be reduced. Let us examine some of the arguments that can be used against protection.

Inefficient resource allocation

Perhaps the strongest argument against protection is that it encourages inefficient resource allocation. This argument was vividly illustrated through the principles of absolute and comparative advantage in Chapter 1. The concept of opportunity cost should dominate any discussion of protection; that is: 'Can our nation's resources be allocated more efficiently than they are at present?' There is evidence to suggest that manufacturers in heavily protected industries sometimes develop a lethargic outlook in the absence of foreign competition. There is a tendency for them to retain outmoded techniques of production that contribute to inefficient allocation of resources. The heavily protected producer, in partnership with workers and trade unions, is likely to prefer the stability and security offered by protection rather than the pressure and uncertainty of international competition. For this reason, such producers are inclined to maintain their relative degree of inefficiency so as to continue to attract protection. They can use the threat of job losses to support their arguments.

Redistribution of income and wealth

Protection involves the **redistribution of income and wealth** in the form of higher prices paid by consumers and subsidies supplied by taxpayers. It can be argued that the redistribution of income and wealth that results from protection is regressive in nature. Protection in the form of tariffs and quotas usually results in higher-priced commodities. No distinction is made between low-income and high-income earners when protection is provided. In other words, it is possible to argue that low-income earners are taxed by the same amount as high-income earners.



iStock.com/Bundit Minramun

FIGURE 5.17 Protection of industries tends to mean that all Australians are providing benefits for high-income earners only, so distribution of wealth becomes uneven.

For example, when our domestic motor vehicle industry was protected by tariffs and quotas, consumers might pay \$20 000 for a particular brand of imported vehicle that, without protection, would cost \$12 000. Thus, these consumers, regardless of income, were paying a tax of \$8000 to support our domestic industry. At the same time, consumers who chose to purchase the domestically produced equivalent of the imported vehicle might pay \$15 000, which is \$3000 more than the free trade price of the import. Effectively, consumers were paying a hidden tax of \$300 to support domestic producers. Consequently, irrespective of whether consumers choose the local product or the imported product, they must pay the cost of protection.

Furthermore, the direct benefits of protection tend to accrue to high-income earners, such as entrepreneurs and shareholders in protected industries. Workers in protected industries benefit at the expense of workers in unprotected industries.

An additional point that has created animosity is the fact that many of our protected industries are foreign owned. Profits earned in Australia are payable to foreign shareholders. This further highlights the argument that, through protection, Australians of all income levels are providing benefits for high-income earners both in Australia and overseas.

Higher prices

Our discussion of tariffs and quotas in Section 5.2 showed how these protective instruments give rise to higher prices. If the cost structures between nations change and the government acts to increase the level of protection of domestic industries, the effect is higher prices. This effect tends to further erode the disposable income of consumers, and contributes to inflationary pressures within an economy. It can be argued that protection has been responsible for many of the structural problems in the Australian economy that governments are having difficulty overcoming at the present time. High wage levels have been frequently blamed as one of the factors that have necessitated protection for our industries. However, when we consider that protection causes higher prices that, in turn, lead to demands for higher wages, it would appear that protection itself has been partly to blame for our wage levels.



iCheer-Jane/Shutterstock.com

FIGURE 5.18 If the cost structures between nations change and the government acts to increase the level of protection of domestic industries, the effect is higher prices.

Restricted consumer choice

Economists argue that an essential measure of economic welfare in a free-enterprise economy is unrestricted consumer choice. However, although Australia is usually classified as a free-enterprise economy, consumers frequently experience **restricted choice** because of the presence of protection. Where protection is high, there is a prohibitive effect on imports, to the extent that the range of products available to consumers is often restricted largely to those produced locally.

Lower standard of living

The combination of inefficient allocation of resources, higher prices and restricted consumer choice suggests that we almost certainly have a lower standard of living than might exist with lower levels of protection.

International ill-feeling

In recent years, Australia has been extremely critical of the protective barriers imposed by the EU, Japan, China, the USA and other countries against imports. Protection is a 'beggars-neighbour' policy: a win-lose strategy. The imposition of tariffs and non-tariff barriers invites retaliation by international competitors. As seen in recent trade disputes – for example, between Australia and China – the escalation of protectionist measures strains international relations and can have widespread economic consequences. In the case of Australian exports, China imposed tariffs and restrictions on key industries – such as wine, barley, coal and seafood – in response to political tensions, further highlighting how protectionism can lead to lose-lose outcomes for all involved.

'Liberation Day' on 2 April 2025 saw the USA place very steep duties on other major economies – China: 34 per cent (on top of the 20 per cent announced previously), Japan: 24 per cent, the EU: 20 per cent and the UK: 10 per cent. This will inevitably disrupt global trading patterns significantly, at least in the near term, and risks impacting growth rates. As of 2025, these measures are proposed, but not fully implemented. Trade flows will also depend on how these countries respond. Some – for example, the EU and China – are preparing to retaliate, while others, such as the UK, might try to adopt a more conciliatory tone aimed at striking an economic deal with the USA.

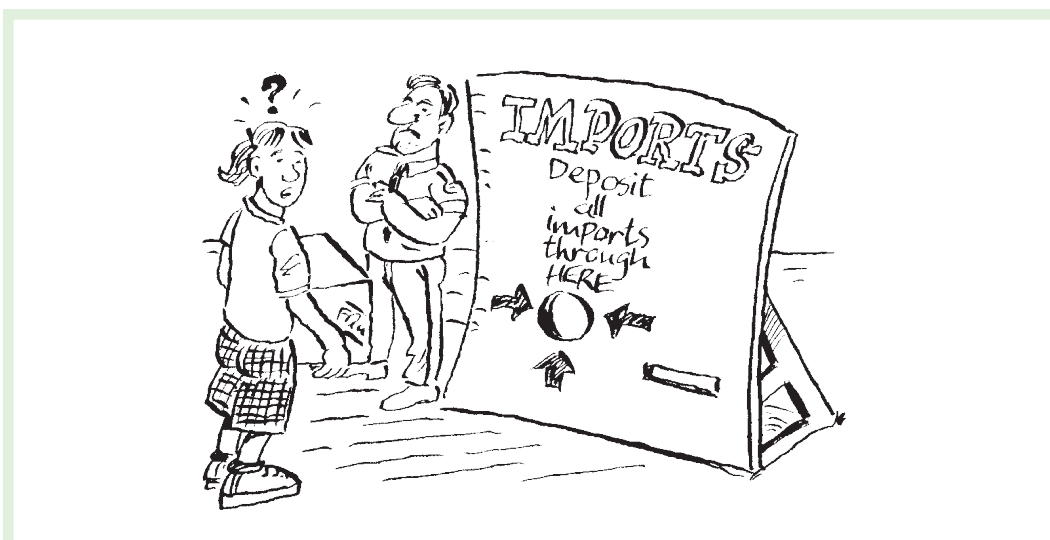


FIGURE 5.19 Protection

Source: US ITC, Evercore ISI, AMP, Trump 2.0 assumes 10% general tariff and 50% on China.

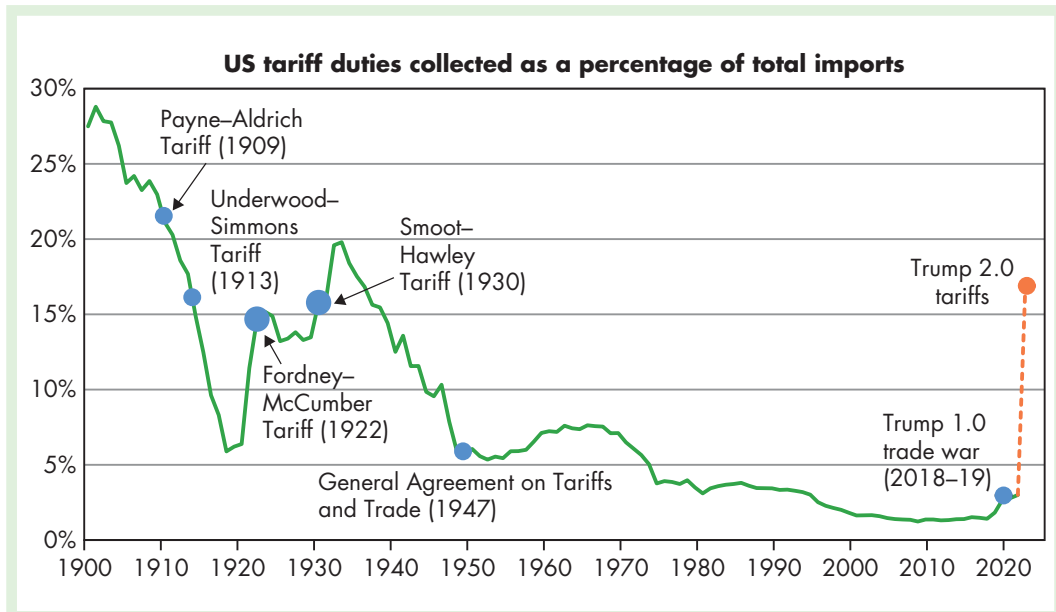


FIGURE 5.20 The 'Trump 2.0' tariffs involve levels of protection not seen since the 1930s.



Weblinks

ABC News – Protectionism
The Conversation – Protectionism
DFAT – Benefits of trade and investment
DFAT – Trade and domestic reforms
Productivity Commission – Protectionism

ECONOMICS CHALLENGE



Australia has been pursuing a policy of trade liberalisation in recent times, resulting in the removal of some of the barriers to international trade. This has resulted in considerable debate in Australia, with some minor political parties (for example, far-right parties), economists and conservative groups within Australia raising the need for protection to retain Australian jobs etc.

Write a short 400–600-word analytical essay opposing or supporting the policy of trade liberalisation. Use criteria such as efficiency, growth and living standards to justify your viewpoint.

Some useful sites to assist your research can be found on Nelson MindTap.

5.5 Trade policy

KEY IDEA

A country must develop a trade policy to effectively manage its trade relationships with other nations so as to maximise its advantages.

Australia has a very open market with minimal restrictions on imports of goods and services. Figure 5.5 on page 136 clearly shows that the level of tariffs has fallen considerably over a 25-year period. This has increased productivity, stimulated growth, and made the economy more flexible and dynamic.

Australia has developed a competitive edge in a range of goods and services – from high-technology products, such as medical and scientific equipment, through to high-quality wine and processed food. Major services exports include education, tourism, and professional and financial services. Services by Australian companies operating overseas provide a major contribution to Australia's economy.

Australia continues to push ahead with trade liberalisation – unilaterally, bilaterally and multilaterally.

Governments must develop trade policies because economies depend on stable trade and payment systems to support growth.

The Department of Foreign Affairs and Trade (DFAT) is responsible for developing Australia's trade policy. DFAT pursues every opportunity to increase and improve conditions for Australian trade in international markets. This includes opening new and bigger markets for Australian exporters by negotiating with our trading partners to reduce barriers to trade, and providing more and better market access opportunities for Australian businesses.

The government's trade policy has been comprehensive in recent times. There has been multilateral trade liberalisation through the WTO, combined with a practical approach to improving market access on a bilateral basis. The WTO's multilateral trade processes – in which all members participate on a basis of equal rights and obligations, and no discrimination – are the government's top priority because they offer the best long-term potential gain for Australia's exporters. In addition, there have been significant gains through bilateral trade agreements that emphasise rapid achievement of substantial gains in market access in major economies of importance to Australia.



iStock.com/MicroStockHub

FIGURE 5.21 An example of a bilateral trade agreement is the Australia–India Economic Cooperation and Trade Agreement, which entered into force on 29 December 2022.

The Australian Government's top trade priority has been the development of multilateral agreements relating to trade. In particular, emphasis has been placed on global trade liberalisation through the WTO because it offers the best prospects for an improved trading environment. In addition, Australia has strengthened its involvement in international forums such as APEC and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).

Multilateral trade agreements are not Australia's only trade priority. The government continues to deepen economic ties through bilateral trade agreements, including longstanding ones with New Zealand and more recent ones with Japan, South Korea, China and Indonesia. Australia is also part of the Regional Comprehensive Economic Partnership (RCEP), leading to further integration with key Indo-Pacific markets.

ECONOMICS IN ACTION



Weblink
DFAT – Composition
of Trade Australia

Worksheet
5.2 Composition of
Trade Australia

DFAT issues an annual report: *Composition of Trade Australia*. Look at the current year's report and answer the following questions.

- 1 What are current government trade priorities?
- 2 How has Australia performed in world trade in the past 12 months?
- 3 What have been the major developments in multilateral negotiations in the past 12 months?
- 4 What have been the major developments in bilateral agreements in the past 12 months?
- 5 What has been Australia's recent position on tariff reduction?

5.6 Trade agreements

CONCEPTS



Bilateral trade agreement: a trade agreement negotiated between two countries

Free trade agreement: an agreement between nations to allow the unimpeded passage of goods between the nations

Multilateral trade agreement: a trade agreement negotiated among many countries

Trade creation: trade that results when production is relocated from higher-cost countries to lower-cost countries within the

trading bloc; this leads to a more efficient use of global resources, and trade is created as the products are imported from the lower-cost country

Trade diversion: trade that results when production is relocated from a lower-cost country external to the trading bloc to a higher-cost country within the trading bloc

Trade policy: the policy of increasing economic activity, creating jobs and obtaining a fair deal for Australia in the international marketplace

Australia participates in many trade agreements, which are either bilateral or multilateral. Our **trade policy** aims to result in an increase in economic activity, job creation, and a fair deal for Australia in the international marketplace. A **bilateral trade agreement** is a trade agreement negotiated between two countries. An example would be the bilateral agreement Australia has with the USA. A **multilateral trade agreement**, on the other hand, is between many countries, such as APEC. APEC is a forum for 21 Pacific Rim economies, including Australia, that promotes free trade throughout the Asia-Pacific region.

The aims of **free trade agreements** (FTAs) are:

- to give Australia better access to desired and important markets
- to place Australian exports in a more competitive position
- to encourage two-way trade, investment, and exchange of ideas and technologies
- to reduce import costs for Australian businesses and consumers.

An FTA may result in either trade creation or trade diversion within multilateral trade agreements. **Trade creation** occurs when production is relocated from higher-cost countries to lower-cost countries within the trading bloc. This leads to a more efficient use of global resources. **Trade diversion** occurs when production is relocated from a lower-cost country external to the trading bloc to a higher-cost country within the trading bloc. This reduces global efficiency. In some cases, FTAs may reduce global efficiency when they lead to trade diversion away from lower-cost producers outside the bloc.

5.6.1 Benefits of free trade

There are many benefits of free trade, which is why government pursues a policy of FTAs:

- FTAs promote freer trade flows and create stronger international ties and relationships with our trading partners.
- FTAs do not just eliminate tariffs; they also address behind-the-border obstacles that interrupt the flow of goods and services between countries, encourage investment, enhance cooperation, and can address other issues, such as intellectual property, e-commerce and government procurement.
- FTAs can increase Australia's productivity and contribute to higher GDP growth by allowing domestic businesses to access cheaper inputs and new technologies, fostering competition and innovation.
- FTAs promote regional economic integration and build shared approaches to trade and investment, including through the adoption of common rules of origin and through broader acceptance of product standards.
- FTAs can enhance the competitiveness of Australian exports in the partner markets, and assist in promoting Australia as an investment destination.
- FTAs can continue to provide benefits to parties as the agreements are implemented, including encouraging ongoing domestic reform and trade liberalisation.

5.6.2 Bilateral trade agreements

Australia currently has 16 bilateral trade agreements in place, including with Korea, Japan, China, Chile, Malaysia, New Zealand, Singapore, Thailand and the USA. In addition, Australia has signed agreements with Hong Kong (China), Peru, Indonesia and the UK.

ECONOMICS DATA



Use the DFAT website to find the most recent list of countries with which Australia has negotiated a bilateral trade agreement. Which is the most recent agreement to have been negotiated?



Weblink
Department of Foreign
Affairs and Trade

The government's FTAs policy is aimed primarily at maximising the economic benefits flowing to Australia from the negotiation of these agreements. An FTA usually sets purchase guarantees, and removes tariffs and other trade barriers.

Bilateral trade agreements are easier to negotiate than multilateral trade agreements, since they only involve two countries. This means they can go into effect faster, and the countries can reap trade benefits more quickly. If negotiations for a multilateral trade agreement fail, many of the nations will negotiate a series of bilateral agreements instead. However, these can often trigger competing bilateral agreements between other countries, which can whittle away the advantages the FTA confers between the original two nations.

ECONOMICS CHALLENGE



Weblinks

Department of Foreign
Affairs and Trade

Department of Home
Affairs – Free trade
agreements

Department of Industry,
Innovation and Science

Select one bilateral trade agreement of which Australia is a member. Using Internet sources, such as the ones you will find on Nelson MindTap, research this agreement to locate the following information:

- how long this agreement has been in operation
- the benefits to Australia from membership
- the barriers/obstacles to the successful operation of the agreement
- how this agreement has contributed to Australia's economic growth.

Can Australia's membership of this agreement be justified? Use criteria such as efficiency, economic growth, living standards and resource allocation to justify your response.

5.6.3 Multilateral trade agreements

Multilateral trade agreements involve many countries. Examples of multilateral trade agreements to which Australia is a party include the Association of Southeast Asian Nations (ASEAN), APEC, the CPTPP and the RCEP. In these trade agreements, member countries agree to reduce tariffs and make it easier for businesses to import and export. Multilateral trade agreements can vary from regional blocs such as the EU and the CPTPP, to global organisations such as the WTO. Since such agreements are made between several countries, they are difficult to negotiate. Global organisations are often slow and trade policy agreement can take many years – even decades – to negotiate and finalise.

Multilateral agreements can create international standards, as well as the efficiency advantages of a broader market. As tariffs are relatively low across most product categories in trading countries, non-tariff barriers have now become the key focus of trade negotiations. Another important benefit of multilateral agreements, from the perspective of exporters, is accumulation, also known as cumulation.

Regional blocs and APEC

The regional blocs are more effective, and allow countries with mutual interests to develop a trade agreement. APEC was established in 1989. Its primary aim is to enable economic growth and prosperity in the region, with the vision of creating a seamless regional economy. APEC pursues these objectives through trade and investment liberalisation, business facilitation, and economic and technical cooperation.

APEC aims to remove impediments to trade and investment 'at the border', enhance supply chain connectivity 'across the border', and improve the business environment 'behind the border'. It endeavours to improve the operating environment for business by reducing the cost of cross-border trade, improving access to trade information, and simplifying regulatory and administrative processes. APEC also assists member economies to build the institutional capacity to implement and take advantage of the benefits of trade and investment reform.

APEC makes an important contribution to the promotion of open trade and investment, economic development and prosperity in the Asia-Pacific. While the original goal of free and open trade and investment by 2020 was not fully realised, significant progress continues to

be made in promoting trade liberalisation and economic integration across the Asia-Pacific region. APEC's 21 member economies now account for nearly 60 per cent of global GDP and are home to over 2.9 billion people. APEC partners remain crucial to Australia's economy, accounting for more than 70 per cent of Australia's total trade in goods and services.

ECONOMICS CHALLENGE



Select one multilateral trade agreement of which Australia is a member. Using Internet sources, such as the ones you will find on Nelson MindTap, research this agreement to locate the following information:

- how long this agreement has been in operation
- the benefits to Australia from membership
- the barriers/obstacles to the successful operation of the agreement
- how this agreement has contributed to Australia's economic growth
- Australia's trade with each of the member partners to the agreement.

Can Australia's membership of this agreement be justified? Use criteria such as efficiency, economic growth, living standards and resource allocation to justify your response.



Weblinks

Department of Foreign Affairs and Trade

Asia-Pacific Economic Cooperation

DFAT – APEC

Association of Southeast Asian Nations

DFAT – ASEAN

Trans-Pacific Partnership

DFAT – TPP

Pacific Islands Regional Organisation

CHECK FOR UNDERSTANDING 5.4

- 1 Why should a country develop a trade policy?
- 2 **Explain** what a multilateral trade agreement is and give two examples of multilateral trade agreements to which Australia belongs.
- 3 **Distinguish** between a multilateral trade agreement and a bilateral trade agreement.
- 4 **Explain** what you consider to be the two most important benefits of FTAs.
- 5 **Explain** the difference between trade creation and trade diversion. Give examples to illustrate your explanation.
- 6 **Explain** why Australia should develop more bilateral trade agreements.
- 7 'Multilateral trade agreements are often slow to negotiate, but may have greater impact for Australia.' **Explain** what is meant by this statement, citing examples.
- 8 Compile three reasons why Australia should not seek to increase its number of FTAs.

R 5.1 Terminology

Select the correct term from the list below that describes each statement.

A Trade diversion	D Import quota	G Free trade agreement
B Free trade	E Export promotion	H Protection
C Trade creation	F Subsidy	I Non-tariff barriers

- 1 Trade of exports and imports in which government exerts little influence on the decisions of private firms and individuals; competitive market forces determine trade patterns
- 2 The specification of how much of a commodity may be imported into a country
- 3 A barrier to trade other than tariffs; for example, quotas, licences and technical specifications.
- 4 An agreement between nations to allow the unimpeded passage of goods between the nations
- 5 Any policy implemented by government to provide domestic producers with an artificial advantage over foreign competitors
- 6 A grant paid by governments to domestic producers to allow them to sell their products at less than marginal cost
- 7 Trade that results when production is relocated from higher-cost countries to lower-cost countries within the trading bloc; this leads to a more efficient use of global resources, and trade is created as the products are imported from the lower-cost country
- 8 Assistance provided to domestic firms enabling them to locate and obtain foreign markets for their goods and services
- 9 Trade that results when production is relocated from a lower-cost country external to the trading bloc to a higher-cost country within the trading bloc

R 5.2 Multiple-choice questions

Select the correct response to each of the following:

- 1 Which one of the following arguments in favour of protection is the most difficult to refute on economic grounds?
 - A the employment argument
 - B the infant industry argument
 - C the improved self-sufficiency and national security argument
 - D the dumping argument
- 2 Which of the following is an example of a non-tariff barrier?
 - A government procurement policies
 - B foreign exchange control
 - C inspection procedures
 - D import licensing requirements

- 3 The introduction of protective barriers will probably not benefit domestic industry because:
- A the World Trade Organization prohibits all barriers to trade.
 - B the World Bank will withdraw its assistance.
 - C other nations will retaliate.
 - D only tariff barriers provide protection.
- 4 It can be argued that protection lowers the standard of living of a nation because:
- A consumers have a restricted choice.
 - B consumers are compelled to pay higher prices.
 - C the productive potential of the nation is not maximised.
 - D domestic industries become less competitive globally.
- 5 Tariffs are a tax on imports and:
- A increase the demand for overseas goods.
 - B make the overseas good less attractive to consumers.
 - C are paid in full by the overseas producer.
 - D increase the income received by overseas producers.
- 6 A major difference of subsidies as a form of protection is:
- A they cause prices to fall.
 - B they do not influence the supply curve of domestic producers.
 - C they do not harm overseas producers.
 - D they improve the allocation of resources.
- 7 So-called 'cheap foreign labour' fails as a reason for protection because:
- A protected industries provide more employment.
 - B protected industries provide better resource allocation.
 - C workers in low-wage countries often have low productivity.
 - D nations should be self-sufficient in all products.
- 8 The fundamental cost of protection for the world economy is best described as:
- A a distortion in the distribution of income.
 - B a less than optimal distribution of resources.
 - C an unequal distribution of income.
 - D price deflation.
- 9 The advantage gained by forming a free trade area, in terms of economic efficiency, is called:
- A trade creation.
 - B trade diversion.
 - C trade assistance.
 - D trade welfare.

Review of Chapter 5

- 10 Bilateral trade agreements provide economic advantages when they lead to:
 - A trade diversion.
 - B trade creation.
 - C trade replacement.
 - D import substitution.
- 11 The main reason why governments might restrict trade is to:
 - A prevent the export of commodities needed in the domestic economy.
 - B raise revenue from taxes on imports and exports.
 - C control inflation.
 - D protect domestic employment in import-competing industries.
- 12 Which of the following is *not* an example of decreased protectionism in the Australian economy?
 - A changing tariff levels on imported goods from 10 per cent to 5 per cent
 - B decreasing subsidies paid to Australian producers
 - C reducing company tax rates
 - D removing design and quality regulations from imports
- 13 Protection of domestic industries by tariffs or quotas:
 - A encourages efficient management practices.
 - B encourages firms to adopt up-to-date technologies.
 - C helps maintain incomes of workers in protected industries.
 - D encourages overseas countries to buy Australian exports.
- 14 Which of the following is an Australian multilateral trade agreement?
 - A CERTA
 - B AANZFTA
 - C APEC
 - D G20
- 15 What is the most likely impact on the Australian economy of a reduction in global protection?
 - A increased sale of exports and lower living standards
 - B decreased sale of exports and lower living standards
 - C decreased sale of exports and higher living standards
 - D increased sale of exports and higher living standards

R 5.3 Short response questions

- 1 **Explain** three measures that the Australian Government has adopted to promote exports and trade.
- 2 **Explain** four reasons why a country might restrict its imports.

- 3 Select examples from the Australian economy of industries or products for which tariff protection can be justified on each of the following grounds:
 - a infant industry status
 - b protection against dumping
 - c strategic industry status
- 4 **Describe** the likely attitudes to protectionism of the following groups within the economy:
 - a consumers
 - b producers of currently protected goods
 - c trade unions working in currently protected industries
 - d exporters
- 5 **Explain** the likely short-term and long-term implications of reduced levels of protection for each of the following:
 - a employment
 - b exports
 - c imports
 - d economic growth
- 6 **Describe** how a reduction in tariff protection is likely to affect the Australian economy.
- 7 **Describe** two advantages of a multilateral trade agreement over a bilateral one.
- 8 **Explain** the role that international trade agreements have played in the reduction of protection levels in Australia.
- 9 Australia has a bilateral trade agreement with New Zealand. **Identify** three benefits to Australia of this agreement.
- 10 Comment on the following statement: 'Why, if there are no barriers to trade, doesn't the world become one big single market?'

R 5.4 Activities

- 1 Austrade and the Department of Foreign Affairs and Trade (DFAT) pursue a policy of increasing Australia's exports. Austrade focuses on trade promotion and export assistance; DFAT leads trade negotiations and policy. Of the following statements, which are valid reasons for justifying such a policy? Which statement would you consider to be the strongest reason? Why?
 - a Exports utilise excess capacity in the economy.
 - b Exports help to keep Australian workers employed.
 - c Exports enable domestic industries to benefit from economies of scale.
 - d Exports help to spread the market risk.
 - e Exports result in a surplus of international reserves for Australia.
- 2 Draw a diagram to demonstrate the effects on imports of a tariff decrease:
 - a without an increase in efficiency levels of domestic producers.
 - b with an increase in efficiency levels of domestic producers.

Review of Chapter 5

- 3 Arrange debates between teams of three members on the following topics:
 - a Given the levels of protection of and government assistance to industry, the theory of comparative advantage could be considered irrelevant.
 - b Australian manufacturing industry should be forced to compete with overseas producers by the removal of all tariffs.
 - c Free trade agreements with individual countries are less beneficial to Australia than multilateral trade agreements.

R 5.5 Investigation – research topics

- 1 Should Australia pursue economic integration on a regional basis? **Evaluate** this proposal in terms of the benefits and costs to Australia. Consider the following in your response.
 - a With what nations should Australia integrate?
 - b Should it do this on a bilateral or a multilateral basis?
 - c What is the current volume and pattern of trade with these nations?
 - d Are the economies complementary? Are tariff barriers high? Is there much opportunity for trade creation?
 - e Are there significant dynamic gains to be had from the increased competition, larger markets and increased investment flows?
- 2 Should Australia continue to reduce its tariffs and other trade barriers? What costs and benefits are there for Australia in pursuing such a trade policy? In establishing levels of protection for Australian goods and services, should Australia treat all new nations in a like manner, or should it favour various groups of nations, such as developing countries, Pacific island countries and Asian nations?
- 3 **Evaluate** the benefits and costs to the global economy if countries adopted a bilateral trade policy as opposed to a multilateral trade policy.
- 4 Why does the Australian Government try to encourage exports and restrict imports? What measures does it adopt to try to achieve both those objectives? Would it be better to allow free trade?
- 5 What changes has the Australian Government made to its trade policies over the past ten years? Discuss the reasons for these changes, and their likely effect on the economy.
- 6 Select one of the bilateral trade agreements Australia has negotiated with other countries. **Explain** how this trade agreement will be beneficial to both countries. Is it likely that this agreement could be one-sided in Australia's favour or in the other country's favour?

Economics in Action worksheets:

- 5.1 The effects of a tariff
- 5.2 Composition of Trade Australia

 Nelson MindTap

To access resources above, visit
cengage.com.au/nelsonmindtap



UNIT 4

Contemporary macroeconomics



Rochu_2008/Adobe Stock Photos

6

Aggregate expenditure model

This chapter explores how aggregate demand and supply can be used to model economic output, helping governments design policies that promote sustained economic growth.

Focus questions and inquiries

- What role does the circular flow of income model play in our understanding of the economy?
- Why is it important to recognise factors affecting both short- and long-run aggregate demand and supply?
- How should one apply the aggregate demand–aggregate supply model to determine the overall price level and equilibrium level of real output in an economy?
- How do global economic forces impact on our management of macroeconomic issues?

This chapter will examine:

- the circular flow of income model and the components of aggregate demand and supply
- the concept of the multiplier process and the marginal propensity to consume
- the distinction between nominal and real gross domestic production
- Keynesian theory and the aggregate demand–aggregate supply model
- global effects on macroeconomic issues.
- the four phases of the economic cycle, in the context of macroeconomic objectives
- how interest rates and federal budget decisions are policy tools that influence economic growth.

6.1 The circular flow of income model

CONCEPTS



Circular flow of income model: a model of the economy, based on income flows from one sector of the economy to another in a circular motion, which explains levels of national income and output, and how changes in these occur

Equilibrium: a balanced situation from which there is no tendency to change; for example, the level of output or income brought about by conditions in an economy

Expenditure: outflows of money from one sector of an economy to another

Income: inflows of money to one sector of an economy from another

Injection: inflow of income into the circular flow of income model

Leakage: outflow of expenditure from the circular flow of income model

Output: production of goods and services in an economy from combining land, labour, capital and enterprise

Paradox of thrift: the theory that increased savings represent a diminishing circular flow of income; as everyone tries to save an increasingly larger portion of their incomes, the nation becomes poorer instead of richer

KEY IDEA

Economic models help to simplify and explain how the component parts of the economy and economic activity work, and how they relate and contribute to economic growth. The circular flow of income, with its leakages and injections approach, is one such model.

You will recall from Units 1 and 2 that the laissez-faire market system has some potential failings in solving economic problems. Market failure can lead to an inefficient allocation of goods and services, ensuring inequity in the distribution of incomes, which leads to greater long-term instability in the economy. Given the presence of market failures, we noted that there was a case for governments to intervene and manage the market system. There is ongoing debate among economists about the extent of government involvement in managing the economy and which types of intervention are most effective.

This chapter examines aggregate demand and supply to model the level of output in the economy so as to better understand how government can then develop policies to sustain economic growth. We will study the role and limitations of the aggregate expenditure models, and types of analyses that are used by economists to explain levels of economic activity. It is important to have an understanding of these before tackling, in our next chapter, how they might be used by governments to manage the economy in order to achieve desirable economic objectives.

When economists in the first half of the twentieth century set out to explain and measure levels of activity in the economy, they realised that this was quite a complex task. To make their job easier, they divided the economy into different sectors and measured what happened in each of these. They were then able to construct a system of national accounts by adding measures of economic activity together from each of the sectors.

In Australia's national accounting system, these sectors were identified as:

- the household or personal sector
- the production or business sector
- the financial sector
- the government or public sector
- the external or foreign sector.

The main relationships between these sectors can be shown in a simplified diagrammatic model of the economy, usually called a **circular flow of income model** because of the way money (and equivalent goods and services) flow in a circular fashion from one sector to another in a continuous manner: see Figure 6.1. You should by now be familiar with this model. But you must always remember that this is very simplified and does not show all possible flows. It would be possible to show additional flows of goods and services as well as money, or flows such as government assistance to businesses, but such additions would make the diagram and the resulting equations with which you are familiar extremely complicated.

We have seen how this model can be represented by such equations as:

$$Y = O = E = C + I + G + (X - M)$$

where:

Y = total income

O = the value of the total output of production

E = total expenditure

C = consumption expenditure

I = investment expenditure

G = government expenditure

X = expenditure on exports

M = expenditure on imports.

In such an equation, $Y = O = E$, because these three measures are really just three different ways of expressing and measuring the same thing. They are measured on different points of our diagram. We could measure **income** as it comes into the households, or as it is spent. Thus, $Y = C + S + T + M$ tells us what people do with their income; that is, all the left-hand part of our circular flow diagram. Income is spent mostly on consumption goods, but some is also saved (S), paid as income tax (T) or used to buy imports (M). These are what we call **leakages** from our flow of income. In the same way, $O = C + I + G + X$ tells us what **output**

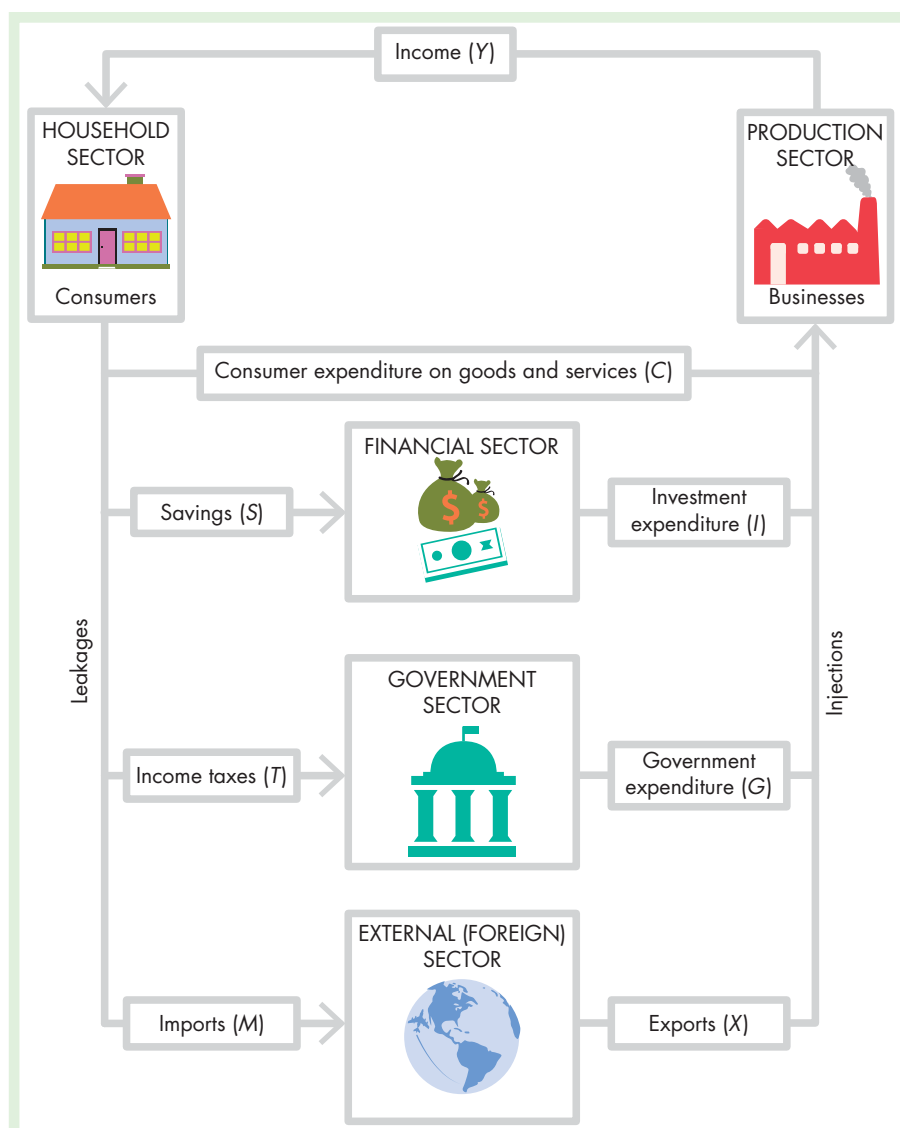


FIGURE 6.1 The circular flow of income model

comprises: consumption goods and services (C), investment goods (I), government-produced goods and services (G), and goods and services that are exported (X). This is the right-hand part of the diagram, or what we know as the **injections** into the flow.

The circular flow model in both its graphical and mathematical forms can thus be used to illustrate the equality of income, **expenditure** and output in the measurement of national production or output, and gives us a basis for the examination of a number of theories that attempt to explain how an **equilibrium** position can be maintained or upset by the effects of adjustments to economic variables and resulting changes in production and economic activity.

6.1.1 Equilibrium in the circular flow of income model

If we only had two sectors in our economy – household and production – the economy would always be in equilibrium or balance, because money earned as income would always be spent on consumption goods. It would be returned to the households as income for providing the factors needed by businesses to produce required goods and services, and on and on the money would go, around and around, with C always equal to O and Y .

Once we add the financial sector, some of the money leaks out of this simple flow as savings, is lent for investment and is then injected back into the system. To have balance or equilibrium within this sector, savings need to equal investment; that is, $S = I$.

To achieve equilibrium or balance within just the government sector, income from taxes would need to equal government expenditure; that is, $T = G$. If taxes are greater than expenditure, a surplus will result. If expenditure is greater than taxes, a deficit will result. If such deficits continue for a long time, the government will have to borrow money to make up the deficits.

With the external sector by itself, a balance is achieved where exports equal imports; that is, $X = M$. If exports are greater than imports, a surplus will result. If imports are greater than exports, a deficit will result. If this imbalance continues for too long, we will start to experience balance of trade and payments problems.

Of course, these sectors do not operate separately. They are all interdependent. Putting all of the sectors together as in the total model of the economy, to achieve equilibrium, we require:

$$I + G + X = S + T + M$$

You should note that it is possible, therefore, to have inequality between I and S , between G and T , and also between X and M , and still have overall equilibrium in the economy, as long as the various inequalities compensate for one another to give an overall equality as expressed in the equation. It simply means that, in our model, injections into the flow of income have to make up for the leakages out of the flow.

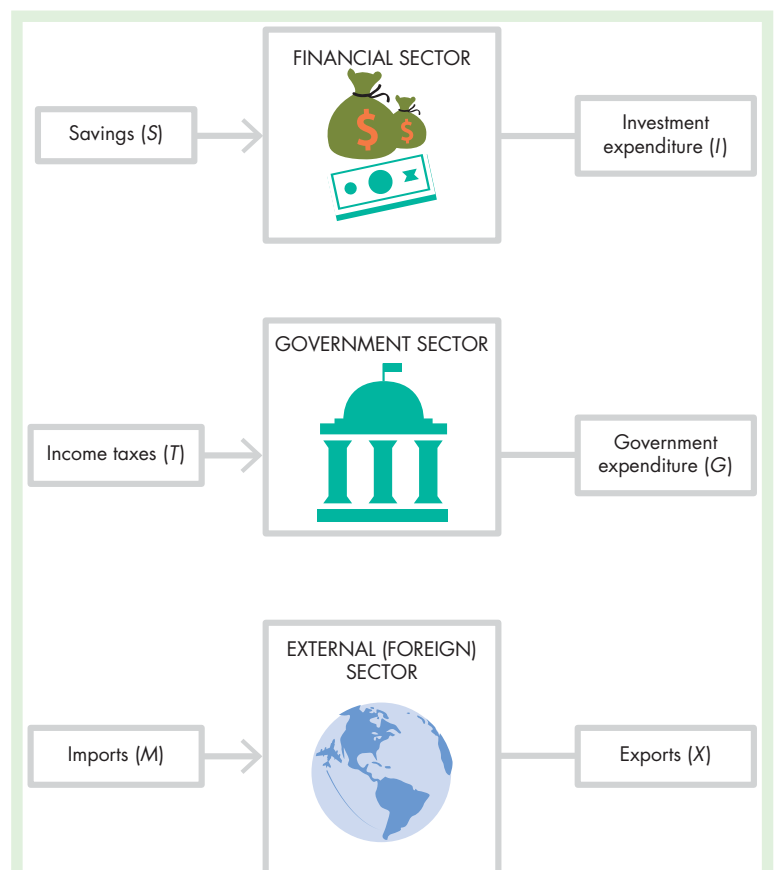


FIGURE 6.2 The financial, government and external (foreign) sectors in the circular flow of income model

ECONOMICS CHALLENGE



Worksheet

6.1 Economics
Challenge

Application of the circular flow of income model: the paradox of thrift

Since the 1980s, concern has arisen at various times over the size of our nation's foreign debt. Australians have been urged to save more to remedy the problem. Furthermore, in times of high unemployment, individuals tend to be cautious and may try to save rather than spend. Unfortunately, in such situations, a curious paradox may arise. An attempt by individuals to save more – that is, to be more thrifty – may actually lead to lower national savings. How can this **paradox of thrift** be explained?

The circular flow model helps explain the paradox. If all individuals attempt to increase their savings, they will reduce consumption expenditure; that is, there will be a leakage from the flow of expenditure going to domestic producers. Businesses will then reduce the production of consumer goods. A decline in production leads to an increase in unemployment and a decline in income earned by the household sector. As income is the source of savings, savings decrease. A desire for individuals to save more leads to a decrease in savings for the economy as a whole. Individuals who have a job may be saving more, but there are fewer people with income-earning jobs from which to save.

If we look at the other leakages and injections in the circular flow model, we see the conditions that lead to or challenge the paradox. For example, if a new technology leads to an increase in planned investment expenditure at the same time as people are planning to increase savings, then national production, national income and savings may not necessarily fall.

Activity

In the daily newspapers, cartoonists effectively comment on a range of issues. Often the issues are related to economics. The cartoons have a variety of purposes, such as to entertain, to provoke or to persuade. Examine the cartoon in Figure 6.3. **Consider** the characters in the picture, and **explain** what the cartoonist is trying to convey and what the deeper economic implications might be. For a further challenge, find a current Australian cartoon that highlights the paradox of thrift and share it with the class.

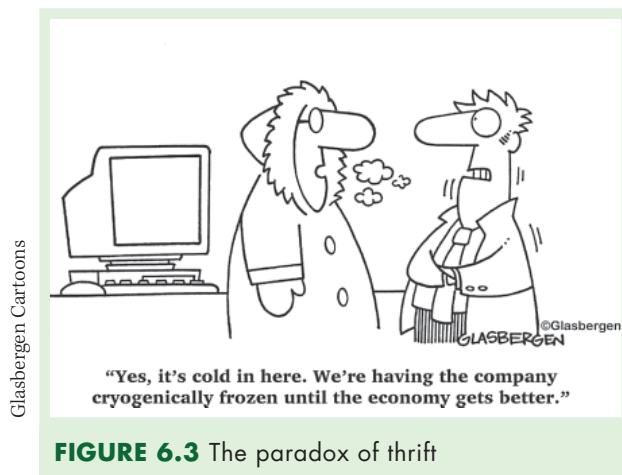


FIGURE 6.3 The paradox of thrift

6.1.2 Usefulness of the circular flow of income model

The circular flow model enables us to gain a simplified picture of the working of the Australian economy. It allows us to see clearly the interdependence of the various sectors of the economy and the main flows between them. We can see, for example, how consumers' decisions about how they spend their income, or businesses' decisions about how much to produce, affect each of the other sectors. Following the flows in the model, we can observe how any changes are transmitted from one sector to another, affecting spending, savings, income and so on as they go.

The model gives us an insight into what determines the level of total domestic or national production. It shows that the aggregate expenditure ($C + I + G + X$) from the various sectors plays an important role in determining how much the production sector will be willing to produce. It indicates how the various leakages and injections affect aggregate expenditure on goods and services and, hence, the national product. Like any good economic model, not only does it give us an explanation of what determines the national product, but it also helps us to understand what would happen if certain variables were changed. The model, therefore, also gives us ideas on how the government can attempt to manage total economic activity to achieve what it considers to be desirable economic objectives. These desirable economic objectives will be more fully explored in Chapter 7.

A simple example of the circular flow of income model

To highlight the value of the circular flow model, let us consider a simple example. Suppose there is large-scale unemployment because the production sector has cut back production in the face of a fall in aggregate expenditure. The government can attempt to stimulate production by stimulating aggregate expenditure. Aggregate expenditure, the model tells us, is made up of C , I , G and X . The government, therefore, needs to stimulate one or more of these flows. One strategy or policy would be for the government to increase government expenditure (G). This would inject more expenditure into the flow going to businesses and would probably induce them to produce more and employ more people. Another strategy or policy would be to cut income taxes. This would reduce the leakages from the income flow going to government. It would give the household sector more disposable income to spend and it would encourage more investment. The levels of C and I would rise, with more expenditure flowing to domestic production. Again, the production sector would probably respond to this increase in expenditure by producing more. In order to produce more, it would need to employ more people, pay more



FIGURE 6.4 With increased C and I , more expenditure would flow to domestic production.

iStock.com/RonFullHD

wages and so on. Such actions would thus stimulate the economy, but we should note that either of these things (increasing government expenditure or cutting taxes) would lead to a budget deficit and this may not be desirable in the long term.

While we recognise that a model is a simplification of reality, the circular flow model does give us an insight into how government, by influencing aggregate expenditure ($C + I + G + X$), can manage the economy so that it moves towards the achievement of national economic objectives. While simplified, the circular flow model offers valuable insights into how the Australian economy functions, and serves as a useful foundation for understanding economic management.



iStock.com/Mlenny

FIGURE 6.5 The Australian Government takes policy action to stimulate production in the economy.

CHECK FOR UNDERSTANDING 6.1

- 1 **Recall** the meaning of the following terms:
 - a circular flow of income model
 - b leakage
 - c injection.
- 2 **Describe** what is meant by 'equilibrium' in the economy.
- 3 **Recall** the conditions necessary to achieve equilibrium:
 - a in an economy with three sectors (households, businesses and finance sector).
 - b in an economy with four sectors (households, businesses, finance sector and government).
 - c in the complete model of the economy, including the external sector.
- 4
 - a How are changes in the level of economic activity brought about?
 - b Draw a diagram to show how such changes can be illustrated.
- 5
 - a How well does the circular flow of income model illustrate the interdependence of various sectors of the Australian economy?
 - b How is the model important for policy makers?
 - c What actions could the government take to stimulate production and employment in the economy?
 - d What actions could the government take to cause growth in the economy to slow? Why would it want to do this?
- 6
 - a What is meant by the 'paradox of thrift'?
 - b Why does a planned increase in savings result in lower actual savings and a decrease in production and employment?

6.2 Economic growth

CONCEPTS



Economic growth: a sustained increase in the productive capacity of an economy over a specific period of time (usually one year), generally indicated by the increased availability of goods and services in the economy

Economic policy: a range of priorities and objectives introduced by government to assist in the managing of an economy; economic policy may change over time based on which political party is in power and in response to broader changes in the global economy

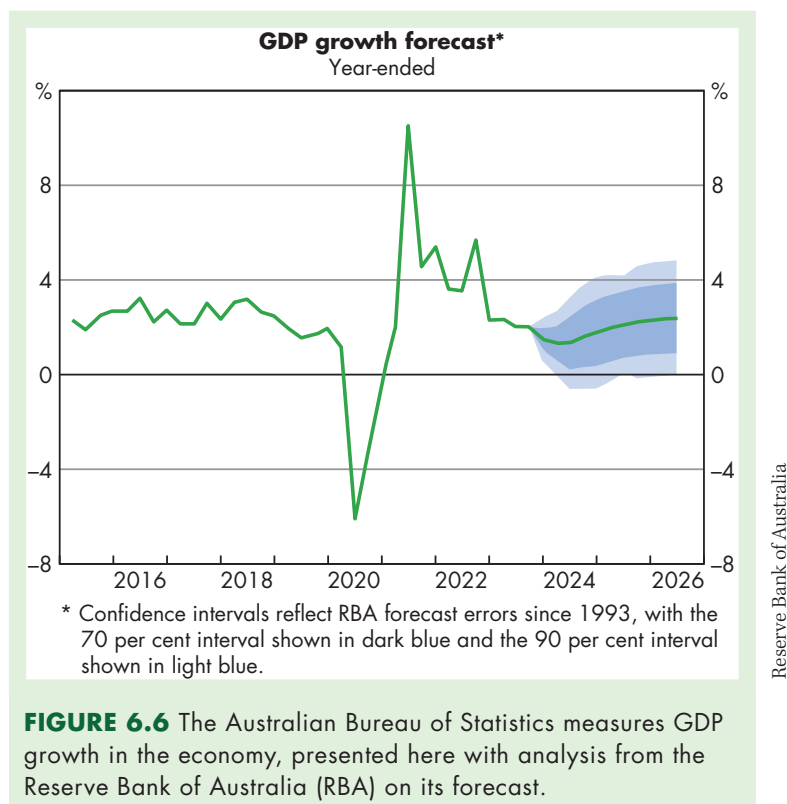
Inflation: the sustained increase in the general level of prices over a period of time (usually one year), measured by an increase in the consumer price index

Nominal GDP: the value of final output of an economy's goods and services expressed in current prevailing prices with no adjustment for the effects of inflation

Real GDP: the value of final output of an economy's goods and services adjusted for the effects of inflation

KEY IDEA

For government to develop policy and effectively manage an economy, it must first accurately and consistently measure economic growth to understand the underlying drivers of the economy. Government's long-held belief is that economic growth allows individuals to increase their consumption and businesses to increase their output, thus creating jobs and thereby raising living standards and national income.



The goal of most nations is to grow their economy. Accordingly, one of the key roles of government is to ensure that as the population multiplies, standards of living continue to improve over time. For this to occur, there must be sufficient goods and services available to satisfy the needs and wants of the growing populace, along with the necessary new jobs and business opportunities. A nation is said to be experiencing **economic growth** when there is a sustained increase in the productive capacity of the economy over a specific period of time (usually one year). The importance of economic growth should not be understated, as the ideal rate of economic growth should be slightly faster than the rate of population growth to ensure that enough jobs are generated to cater for new entrants into the workforce, thus reducing the economic risks associated with rising levels of unemployment. The setting of **economic policy** by government assists in managing the economy (to be discussed in Chapter 7) and actively pursues continual economic growth. However, while recurrent positive economic growth is desirable, it also needs to be sustainable and should not impose costs on future generations and the environment.



Economists will monitor changes in GDP, which represents a nation's output, to assess the nation's ability to satisfy the needs and wants of its population. To assist economists in their analysis, the Australian Bureau of Statistics (ABS) publishes data about changes to Australia's level of production of goods and services every three months: in March, June, September and December. The national accounts measure economic activity in terms of production in the economy.



FIGURE 6.8 Economists will monitor changes in GDP to assess a nation's ability to satisfy the needs and wants of its population.

6.2.1 Three methods of measuring total production (GDP)

The production approach



The production approach calculates the total value of final goods and services produced in the economy during a particular period. This method requires counting only the 'final' goods or the 'value added' at each stage, to avoid overstating GDP. Total values at each stage of production cannot just be added together; otherwise, flour, for example, which is an input to bread production, would be counted twice. This figure is represented by 'O' for output in our equation for the circular flow.

The income approach



The income approach adds together all the income received by owners of productive resources in the economy (that is, wages and salaries, profits, rent and interest). This method is considered the most efficient for measuring GDP because of the completeness of available statistics from taxation and other government records. The resulting figure is represented by 'Y' for income in our equation for the circular flow.

The expenditure approach



The expenditure approach measures the total value of expenditure of income earned on goods and services. This method adds together: private expenditure on consumption goods and services by consumers, and capital or investment goods by businesses; all government or public expenditure; and expenditure by foreigners on our exports of goods and services sold to them. However, an adjustment must be made to subtract expenditure by Australians on imports, because these goods and services were not produced in Australia, and should not be included in our GDP. This method is considered the best measure of aggregate demand in the economy, and, as expenditure determines levels of output and employment, is very important for purposes of economic analysis. This method gives us the 'E' for expenditure in our equation for the circular flow.

Conclusion

While each of the above approaches, conceptually, produces the same estimate of GDP, if the three measures are compiled independently using different data sources, then naturally different estimates of GDP would result. However, the ABS aligns the three approaches so that the estimates of GDP that are publicly reported accurately represent the value of Australia's output. It is important for students to note when deliberating over the latest quarterly GDP results that a clear distinction must be drawn between **nominal GDP** and **real GDP**. While nominal GDP will often make a good newspaper headline, it is the use of real GDP – which values the nation's output adjusting for the effects of **inflation** – that shows whether real economic growth has occurred.

ECONOMICS DATA



As noted on page 174, the ABS completes the hard work of surveying the output of the economy on a quarterly basis to calculate Australia's GDP using the three approaches of production, income and expenditure. The figures calculated in the national accounts provide the government with excellent information to use in comparing the economy over time, and with other countries. The government does this as part of its role in managing the level of economic activity. To calculate economic growth for an economy, the following equation can be used:

$$\text{Economic growth \%} = \frac{\text{Real GDP (current year)} - \text{Real GDP (previous year)}}{\text{Real GDP (previous year)}} \times \frac{100}{1}$$

Now that you have an understanding of the significance of GDP, visit the ABS website and locate its publication *Australian National Accounts: National Income, Expenditure and Product*. Then complete the following activity.



Weblink
Australian Bureau
of Statistics

Source: Australian Bureau of Statistics. Creative Commons
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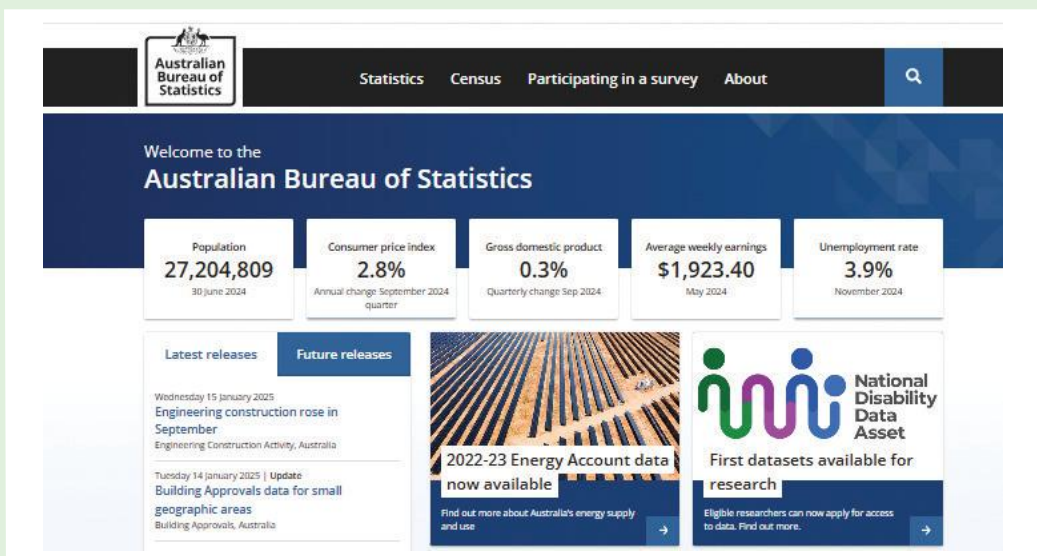


FIGURE 6.9 The ABS home page

Activity

To obtain an initial understanding of the latest GDP results, start your review by reading the ABS media release that accompanies each quarterly publication of data, found at the bottom of the webpage. Then examine the ABS 'Key statistics' to **identify** which sections of the economy have contributed to any recent growth. Finally, conduct some analysis of each of the following sections of the ABS data and discuss the results with others using the questions below to guide your analysis.

Continued

Continued

For an added challenge, you may like to **compare** the ABS GDP results from two consecutive quarters of data or from a previous year.

- 1 Click on 'Expenditure', read the summary comments and discuss the following:
 - What were the largest contributors to final consumption expenditure?
 - What sections of the economy provided an increase in fixed capital formation?
 - Which exports and imports grew for the quarter? For the year?
- 2 Click on 'Income', read the summary comments and discuss the following:
 - Which business sectors experienced wages growth (compensation of employees) for the quarter?
 - Which states experienced public sector wages growth for the quarter?
 - Which business sectors experienced an increase or decrease in profits (gross operating surplus)?
- 3 Click on 'Production', read the summary comments and discuss the following:
 - Which production sectors experienced 'seasonally adjusted' growth?
 - Which production sectors experienced a 'seasonally adjusted' decline?
 - Select an industry that experienced the most significant movement (growth or decline) and attempt to find the reasons for the movement in output.
- 4 Click on 'State and territory final demand', read the summary comments and discuss the following:
 - Which Australian states experienced a growth in their final demand? What were the drivers of demand?
 - Which Australian states experienced a decline in their final demand? What caused the decline?
 - Which states contributed most to the nation's overall GDP position? Examine the reasons why.

6.2.2 The challenges of economic growth

In any study of economic growth, it is important to recognise that while the goal of a nation is to grow its economy, this should always be seen as a means to an end, and not an end in itself. Accordingly, we have a word of caution for those who simply focus on rising quarterly GDP results as the one true indicator of a nation's economic success. We need to remember that GDP is simply a measure of the goods and services produced and consumed in a given period of time. GDP does not necessarily indicate the general wellbeing, social cohesion and levels of happiness within a populace. It is only by dissecting and analysing the GDP results in detail that economists can start to develop a deeper understanding of the true nature of a society and the choices it is making.

For example, what images do you conjure of a society where GDP rises by building more prisons, increasing spending on border security and developing further coal-fired power stations? Now consider a society where GDP rises through increased spending on education, the construction of wind farms and sustainable agriculture production. Clearly, the aim of economic growth is to achieve social objectives that benefit a society. As economists we need to recognise that just pursuing economic growth for its own sake has potential negative consequences.



Akhadian Reppawali/Shutterstock.com

FIGURE 6.10 Consider a society where GDP rises through the construction of wind farms like this one in Albany, Western Australia.

Now consider the following:

- the environment and the impact on society due to pollution, climate change and the depletion of natural resources that result from protecting polluting industries that improve a nation's GDP
- the way income and wealth are distributed within an economy; for example, a rising GDP resulting from a mining boom may well lead to higher incomes for those in the mining sector, but does the age pension necessarily change?
- a rise in economic growth leading to greater employment that can potentially also change the nature of work and the range of jobs that are available, resulting in some workers being made redundant. Coupled with this is the pressure of inflation coming out of an economy running at capacity.

These consequences, in the pursuit of economic growth, will be more thoroughly understood as we explore aggregate demand and supply theory, which will ultimately assist us to recognise and develop positive policies that will allow both improved social outcomes and the necessary national income to fund them.

6.3 Aggregate demand and supply theory

CONCEPTS



Aggregate demand (AD): the level of expenditure on total production or output that is planned at various price levels

Aggregate supply (AS): the level of total production or output that producers plan to supply at various price levels

Autonomous expenditure: those forms of expenditure that are independent of the level of aggregate income; examples include investment expenditure because of technological change, government expenditure (such as a new school due to an election promise) or consumption increases due to demographic changes

Demand-side/supply-side shocks: sudden and unexpected events that cause a significant shift in the demand/supply for goods and services in an economy

Frictional unemployment: unemployment related to time lags involved in the transition between jobs

Keynesian theory: economic theory based on the ideas of John Maynard Keynes,

aimed at analysing and understanding the macroeconomic forces that determine aggregate production, income and employment, and providing ways of managing economic activity during a recession or depression through demand management

Marginal propensity to consume (MPC): the proportion of an increase in income that is spent on consumption

Marginal propensity to save (MPS): the proportion of an increase in income that is saved, rather than spent

Multiplier process: a more than proportional change in the equilibrium level of national income resulting from a change in autonomous expenditure

Structural unemployment: unemployment that occurs when economic needs change, causing jobs themselves to change or disappear

KEY IDEA

The aggregate demand–aggregate supply model refines the work of John Maynard Keynes, and examines the impacts on the general price level, real GDP and employment of various demand-side and supply-side shocks. The model helps government to better understand an economy and develop policies in both the macro- and microeconomic areas to deal with these shocks, to provide stability and economic growth, and to achieve related social and economic objectives.

As economists, we strive to better understand the factors that influence the level of economic activity within an economy, so that we can ultimately shape and construct appropriate policies that will improve economic growth and lead to positive social outcomes. Classical economic theory tells us that the most important factor determining economic growth is the total level of output generated by firms in the production sector. It is the supply of goods and services in a market operating without any government intervention that achieves the best levels of economic growth. However, the Great Depression of the 1930s caused a number of economists to rethink the classical approach.

John Maynard Keynes, in his book *The General Theory of Employment, Interest and Money* (1936), put forward a radical new framework for analysing and understanding the economy. He took economics in a completely new direction from the one it had been following for decades. Keynes tried to put forward practical solutions to the real problems of his day: recession, depression and unemployment. In seeking to deal with the very significant problems of the Great Depression, Keynes believed that one of the key roles of government was to intervene in and manage the macroeconomy. He developed **Keynesian theory**, which stated that the most important driver of economic growth was the total level of expenditure in the economy derived from increasing the level of aggregate demand. Put simply, the value of a nation's output or GDP will vary directly with changes in aggregate demand. Keynes recognised that households would not necessarily spend their earnings just because goods were produced and businesses paid their workforces for production. He found that during the Great Depression, high levels of economic pessimism existed in both households and firms. This meant that consumers who had jobs (and many did not) were hesitant to buy goods and services that were not deemed essential to their daily lives. Likewise, business owners were reluctant to invest in capital goods and hire labour due to the huge downturn in both household and government spending. The combination of these factors, along with a weak global economy, led to a significant fall in aggregate demand, which compounded the existing weak global economic performance with falling production and rising unemployment. Keynes' solution was for government to act in a proactive way to manage the macroeconomy and, where required, to take direct action to influence aggregate demand.

6.3.1 Aggregate demand



FIGURE 6.11 Markets are prone to instability.

It has been clear since the Great Depression that market economies are prone to macroeconomic instability caused by aggregate demand and aggregate supply shocks. Thus, Keynes' model has been further refined, with concentration on both demand and supply management, and the development of new and opposing ideas. These provide governments with policies in both the macro- and microeconomic areas to deal with these shocks, and to provide stability and economic growth and to achieve related social and economic objectives. The aggregate demand–aggregate supply model was one of the first of these developments. It refines the work of Keynes, and examines the impacts on the general price level, real GDP, and employment of various **demand-side and supply-side shocks**.

Aggregate demand is the total quantity of output demanded at alternative price levels in a given time period. It is the inverse (negative) relationship between planned expenditure on real GDP and the general price level, *ceteris paribus* ('all other things being equal'). Aggregate demand can also be expressed as a GDP equation representing the total spending of a nation in a given time period (usually a year) for all the goods and services produced by that nation:

$$AD \text{ or } GDP = C + I + G + (X - M)$$

remembering that:

- C = consumption expenditure
- I = investment expenditure
- G = government expenditure
- X = expenditure on exports
- M = expenditure on imports.

When talking about aggregate demand and prices in the macroeconomy, there are both differences from and similarities to the law of demand you learnt about with respect to the price mechanism. A difference is that aggregate demand is the relationship between the planned aggregate demand for the total domestically produced output (that is, real GDP) and the general price level, not demand and price for one particular product. A similarity is that there is an inverse relationship between these two factors.

This is illustrated in Figure 6.12, where, when the general price level for all goods and services goes up, a movement or slide along the curve indicates a fall in aggregate demand from Y_0 to Y_1 .

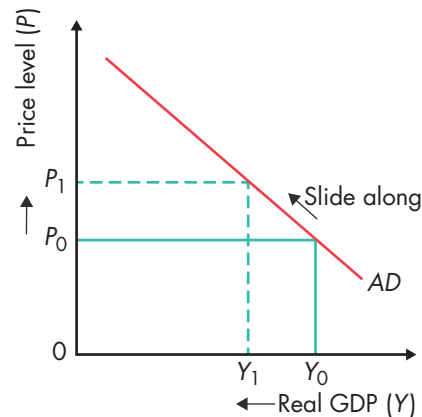


FIGURE 6.12 Aggregate demand: an increase in price

A general rise in prices would be transmitted to AD through effects on wealth (reducing the value of money and bank deposits), interest rates (where the rates go up due to increased demand for money) and foreign demand (where price rises make exports less attractive and imports more attractive). These three effects explain the reason for the inverse relationship between AD and P , and combine to cause a movement along the AD curve as consumption and investment expenditure decrease.

Of course, as with individual products, if any of the factors other than price change, we will get an increase or decrease in demand and a shift in the AD curve. Such a shift, showing an increase in aggregate demand without a change in general prices, is illustrated in Figure 6.13.

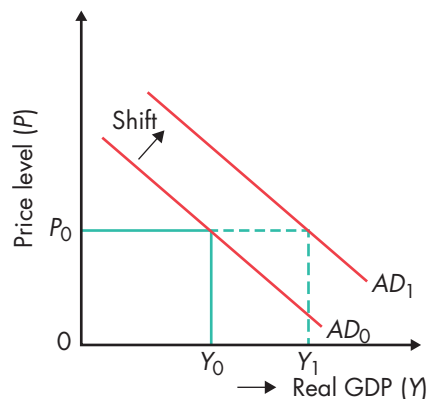


FIGURE 6.13 An increase in aggregate demand

You will recall that aggregate demand (AD) is made up of expenditure components, such as consumption (C), investment (I), government (G) and net exports ($X-M$). Factors that might increase or decrease these expenditures, and thus impact AD , include change in disposable income, wealth, price expectations, income distribution, interest rates, demographic changes, profit expectations, innovations, cost of capital goods, government policy, tariffs or quotas, exchange rates, international price competitiveness and foreign GDPs. By analysing changes in the factors that influence the individual expenditure components, economists can identify the issues that will cause an economy to either expand or contract over time. This allows a better understanding of what policies may be developed to increase levels of economic growth.

The implication of all this is that, to some extent, both general price levels and many of these component factors can be manipulated by government and provide avenues for demand-side policy management. Government expenditure (G) is an obvious example. Interest rates may also be ‘managed’ by monetary authorities (the Reserve Bank of Australia (RBA)) and their effects transmitted to AD . The effect, of course, will not be direct but rather indirect, through transmission mechanisms, which can be shown in a shorthand fashion as in the following examples:

- an increase in the money supply, M_s :
 $\uparrow M_s \rightarrow \downarrow \text{interest rates} \rightarrow \uparrow C, \uparrow I \rightarrow \uparrow AD$
- a cut in income tax, T :
 $\downarrow T \rightarrow \uparrow \text{disposable income} \rightarrow \uparrow C \rightarrow \uparrow AD$

These two changes cause the AD curve to shift. The factor causing the increase in AD was not a change in the domestic price level.

CHECK FOR UNDERSTANDING 6.2

- 1 Define ‘aggregate demand’.
- 2 What are the aggregate expenditure components of aggregate demand?
- 3 **Recall** two reasons why, if the general price level rises, the planned level of aggregate expenditure is expected to fall.
- 4 **Recall** five factors that would cause planned aggregate expenditure to fall even though the general price level has not changed.
- 5 Draw a transmission mechanism illustrating how a cut in tariffs may affect aggregate demand.

ECONOMICS IN ACTION



Components of aggregate demand

Historically in Australia, of the items making up aggregate demand, consumption expenditure is generally by far the largest. In addition to this, Australia’s consumption spending has tended to be relatively stable over time. Despite being smaller in aggregate size, variations in the other more volatile items – such as exports and business investment spending – can still have a significant impact on the rate of our economic growth.

Continued

Continued

Economists find it valuable to monitor the volatility of the individual components of aggregate demand so that appropriate economic policies can be implemented to respond to downturns in economic growth.

Using the table in Figure 6.14 as a template, conduct a 'time study' of changes in Australia's aggregate demand components over the past three, five and ten years. The necessary data to complete your time study can be found using the websites of the ABS, the RBA and the Australian Government's Department of Treasury and Finance. Once you have completed your time study, discuss the possible causes of any changes in demand that you have identified. Then consider, if you were in government, what economic policy responses you would implement to improve demand in a given section of the economy.



Weblinks
 Australian Bureau of
 Statistics
 Reserve Bank of
 Australia
 Australian Treasury

FIGURE 6.14 Chain volumes for 2024

Aggregate demand components	\$b	% of total
Household	1310	50
Government	581	22
Business investment	495	19
Dwelling construction	134	5
Inventories	4	–
Exports	715	28
Imports	(626)	(24)
GDP	2613	100

Source: ABS

6.3.2 Multiplier process

Now that we recognise that changes in aggregate demand will influence a nation's level of economic activity and therefore national income, our attention can shift to understanding the details of how this actually occurs. This is especially important for governments, as their fiscal decisions can significantly influence national income through the multiplier process.

The **multiplier process** is an important concept to understand as it allows economists to calculate the impact of autonomous expenditure on national income levels. In simple terms, the multiplier is a more than proportional change in the equilibrium level of national income resulting from a change in **autonomous expenditure**. Thus it is represented by the number of times the final increase in national income surpasses the initial increase in the original expenditure. Autonomous expenditure refers to those forms of expenditure that are independent of the level of aggregate income. Examples include business investment expenditure because of technological change, government expenditure (such as on new schools, hospitals or infrastructure) due to an election promise, or consumption increases due to demographic changes (such as an increase in national migration). If autonomous expenditure increases, national income will also increase.

Observe our hypothetical example of a simple three-sector economy where a consumption function diagram (Figure 6.15), includes national income (Y) derived from consumption (C) and investment (I) less savings (S). You can see that the increase in autonomous expenditure would show as a shift to a parallel higher level. Keynes noted that a key line is the 45° line, drawn from the origin to the top right-hand corner. This line indicates all of those points where output (or supply) would equate with aggregate expenditure (or demand). So equilibrium is attained where aggregate output or income is equal to aggregate expenditure. The equilibrium level is thus where the $C + I$ line cuts this 45° line.

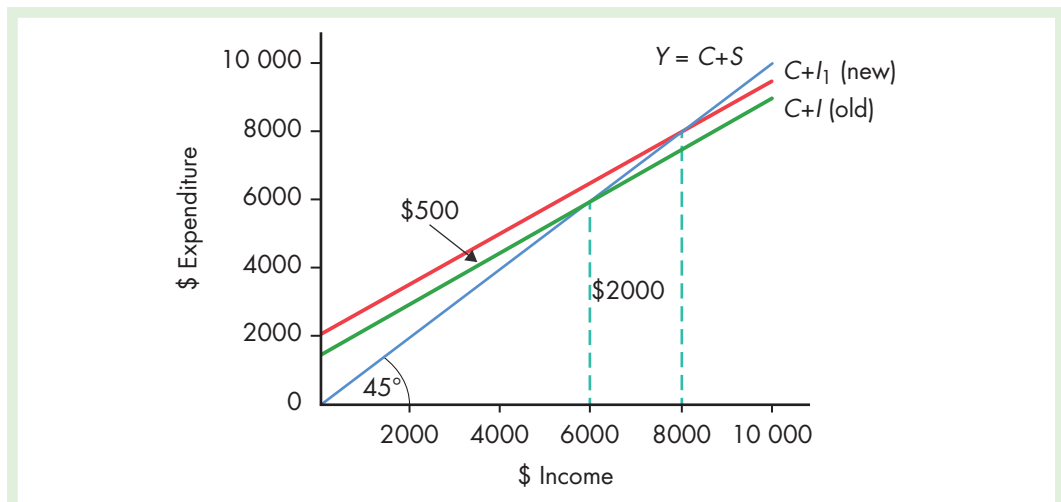


FIGURE 6.15 The multiplier impact

In Figure 6.15 you will note that changes in autonomous expenditure cause even larger changes in the level of national income or GDP. For example, in the case shown, if autonomous investment increased by \$500, this would result in an increase in the equilibrium level of income by the far greater amount of \$2,000, the difference of moving from the income point of \$6,000 to \$8,000. The relationship between the change in autonomous expenditure and this change in income is known as the multiplier.

The multiplier process begins with the increase in autonomous investment. This results in an increase of the same amount in production and income (increasing aggregate demand). It logically follows that some of this extra income will be spent on consumption goods; this is characterised as the **marginal propensity to consume (MPC)**, and is the proportion of any small increase in income that is spent on consumption. Likewise, some of the extra income will be saved and is identified as the **marginal propensity to save (MPS)**, which is defined as the proportion of any small increase in income that is saved. The induced increase in consumption spending resulting from the initial autonomous investment will effect a further increase in aggregate demand, production and income, still further consumption, and so on. It also logically holds that for every extra dollar of income



FIGURE 6.16 Income saved is identified as the marginal propensity to save.

generated, a proportion of it must be spent and the remaining amount saved. Consequently, in any economy, $MPC + MPS = 1$. What will vary across different national economies and at different stages of economic development is the ratio of MPC to MPS. Let us now revisit Figure 6.15 and explain our graph numerically.

A multiplier example walkthrough

We start with our assumption that for our hypothetical economy, $MPC = 0.75$; then according to our above rule, MPS must $= 0.25$. With an MPC of 0.75, and an original increase in expenditure of \$500, income would increase by \$500. Then consumption would increase by $\$500 \times 0.75 = \$375$ and savings would increase by $\$500 \times 0.25 = \$125$. The increase in consumption would result in a further increase in income of \$375, of which 0.75 ($\$375 \times 0.75 = \$281.25$) will be spent on consumption, and 0.25 ($\$375 \times 0.25 = \$93.75$) would be saved, and this process would continue on through a number of stages. The eventual total increase in income would be \$2000.

The first stages of the process and the eventual outcome are shown below, and you will notice that as the multiplier process continues, the amount of additional consumption spending declines over time, until it eventually becomes inconsequential:

$$\text{Increase in } Y = \$500 + \$375 + \$281.25 + \$210.94 + \$158.20 + \$118.65 + \$88.99 + \$66.74 \dots = \$2000$$

We do not have to go through these extended additions or redraw our graphs. A simple formula allows us to calculate this easily. The multiplier for a three-sector economy is calculated by the formula:

$$\text{Multiplier } (k) = \frac{1}{1 - MPC}$$

Applying this, we can find what our increase in income will be:

$$\text{Increase in } Y = \$500 \times \frac{1}{1 - MPC} = \$500 \times \frac{1}{0.25} = \$500 \times 4 = \$2000$$

Of course, once we add in the government and foreign sectors, the formula for the multiplier becomes more complicated, because we must take into account the marginal rate of taxation (MRT) and the marginal propensity to import (MPM), but the principle is still the same. In fact, the introduction of the leakages of taxes and imports actually reduces the size of the multiplier a little, but any increase in autonomous expenditure will still result in a more than proportional increase in national income.

The full formula for the multiplier would be:

$$k = \frac{1}{1 - MPC + (MPC \times MRT) + MPM}$$

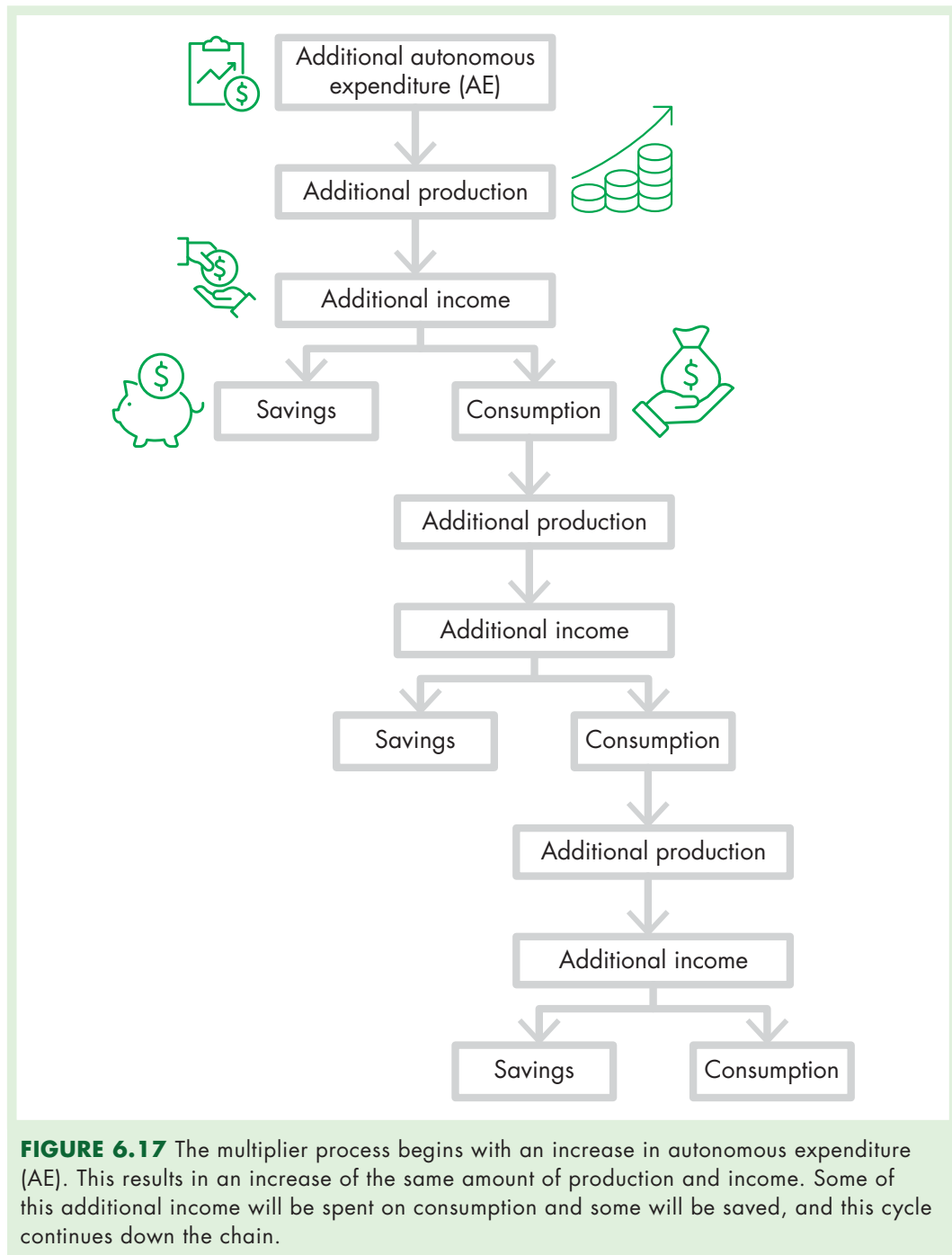
This calculation involves several assumptions, such as the treatment of taxation and spending, and can be expressed in alternative forms (for example, using MPS instead of $1 - MPC$). These assumptions and differences do not change the general principle.

A further example may help. Using an MRT of 0.3, an MPM of 0.1 and an MPC of 0.75, the value of the multiplier would be:

$$\text{Multiplier } (k) = \frac{1}{1 - 0.75 + (0.75 \times 0.3) + 0.1} = \frac{1}{0.25 + 0.225 + 0.1} = \frac{1}{0.575} = 1.74$$

Thus, any increase in autonomous expenditure would result overall in an increase 1.74 times that size in income. If we apply this new multiplier to our original hypothetical economy from above, you can see how the increase in national income has now been reduced from \$2000 to \$870 due to the impacts of taxation and imports:

- the simple three-sector national economy: increase in $Y = \$500 \times 4 = \$2000$
- the full five-sector national economy: increase in $Y = \$500 \times 1.74 = \$870$



You can see from the preceding examples how useful the multiplier process would be to a government in its management of economic activity. However, it is important to note that the multiplier also works in reverse. If there is a fall in autonomous expenditure, the equilibrium level of income will fall through a number of stages by an amount equal to the product of the multiplier and the fall in spending. In most circumstances, a government would not want this to happen. Generally, a government would prefer income (and demand and production) to rise, and the objectives to achieve this will be discussed in Chapter 7.

CHECK FOR UNDERSTANDING 6.3

- 1 **Recall** the multiplier process.
- 2 **Describe** why it is useful to know the value of the multiplier.
- 3 How is the multiplier calculated in a three-sector economy?
- 4 How is the multiplier calculated in the full, five-sector open economy model?
- 5 Is the value of the multiplier larger in a three-sector economy or the full, open economy? Why?

6.3.3 Aggregate supply

Aggregate supply is the total quantity of output produced at alternative price levels in a given time period. It is the direct (positive) relationship between planned production and the general price level, *ceteris paribus*. But the *AS* curve, unlike the normal market supply curve, has two sections: the first is an upward-sloping section and the second is a vertical section.

The *AS* curve is illustrated in Figure 6.18. The first section represents a short-run positive relationship, which is explained in terms of the diminishing marginal productivity of labour. To expand production from Y_0 to Y_1 , more labour (a variable factor of production) is used to work the (fixed) capital more intensively, eventually forcing productivity down and costs up. Thus, production increases on this part of the curve are accompanied by general price level increases. The second, vertical section is a result of the physical limits of production being reached, so this point at Y_p represents the maximum production possible. The full employment level, where unemployment is down to its natural rate – with only **frictional** and **structural unemployment** – is just to the left of this maximum position at Y_f . This full employment level would be a desirable situation in terms of the employment objective for macro-policy makers, as only those willingly out of work are unemployed.

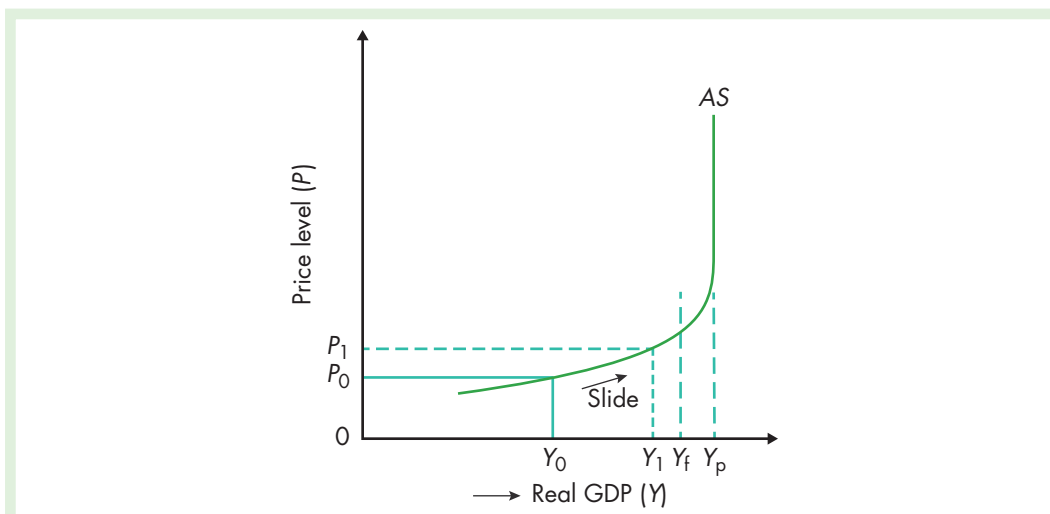


FIGURE 6.18 Aggregate supply

As with demand, a distinction needs to be made between the causes of a slide or movement along a curve (that is, due to a change in the general price level) and a shift in the curve (that is, due to a change in a *ceteris paribus* condition). Factors that cause the AS to shift are those that affect the costs per unit of production. If an increase in AS is the result of a decrease in the price of an input, such as wages or imported fuel, the AS curve shifts to the right, but the vertical section does not shift. This is illustrated in Figure 6.19(a). However, if the increase in AS is due to a change in productivity, such as improved technology, then the whole curve shifts down and to the right, as shown in Figure 6.19(b). In this case, the production possibilities frontier has shifted outwards.

Obviously, an increase in national production without an increase in prices, as shown in Figure 6.19, is a desirable economic objective. To achieve this, the government must try to manipulate supply-side economic variables to reduce unit costs of production. One example of such a policy would be a cut in tariffs. The transmission process may work as follows:

↓ tariffs → ↓ price of imported inputs → ↓ unit costs → ↑ AS (shift)

and:

↓ tariffs → ↑ competition → ↑ efficiency → ↓ unit costs → ↑ AS (shift)

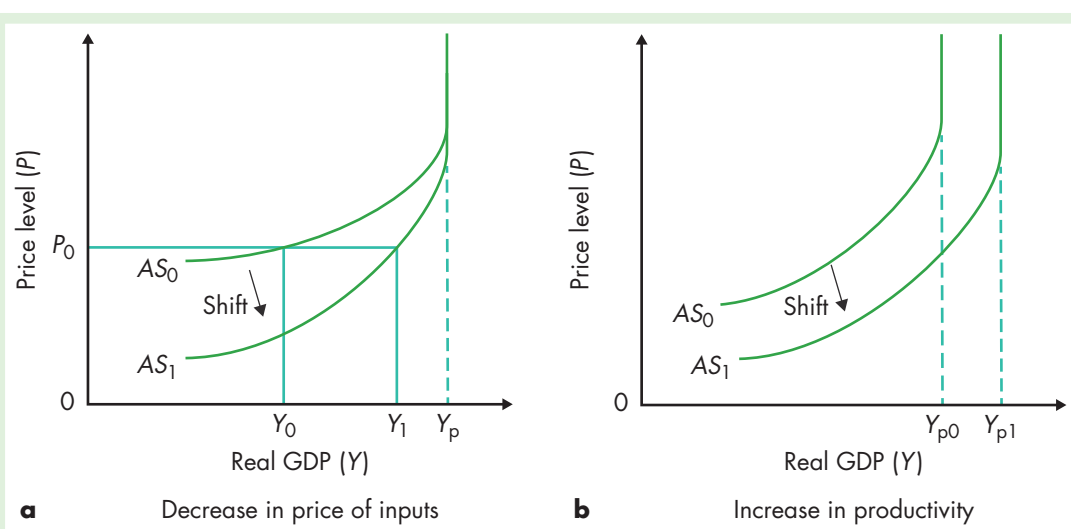


FIGURE 6.19 Increases in aggregate supply

CHECK FOR UNDERSTANDING 6.4

- 1 Define 'aggregate supply'.
- 2 Draw a typical AS curve.
- 3 Why is the cost of each unit of extra production expected to rise as production increases?
- 4 Why does the AS curve become very steep as planned production moves beyond the full employment level of production?

Continued

Continued

- 5 What factors may cause an increase in aggregate supply even though the general price level has not changed? Show this graphically.
- 6 What economic variable may the government attempt to change in order to cause an increase in AS? Illustrate the effect using a transmission mechanism.

6.3.4 Equilibrium using aggregate demand and supply theory

CONCEPTS



Deflationary gap: the amount by which the equilibrium level of production and income falls short of the full employment level

Inflationary gap: the amount by which the equilibrium level of production and income exceeds the full employment level

Using aggregate demand and supply theory, we can put the AD and the AS curves together to predict the production and price levels for the macroeconomy. When planned aggregate demand equals planned aggregate supply, the macroeconomy will be in equilibrium.

If the economy is not operating at this equilibrium level, market forces will begin to work, pushing production towards the equilibrium level. If, for example, planned aggregate supply is greater than planned aggregate demand, a surplus of inventory will build up, forcing prices and production back down to the equilibrium level, as in Figure 6.20. If prices and production are below the equilibrium, a shortage will result. Then producers would push prices up and expand production to the equilibrium level.

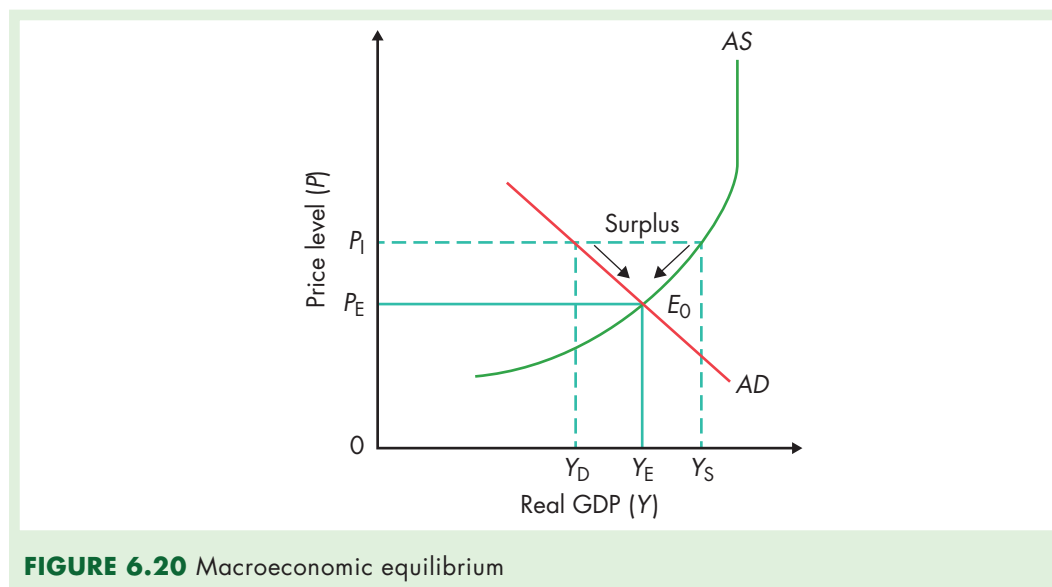
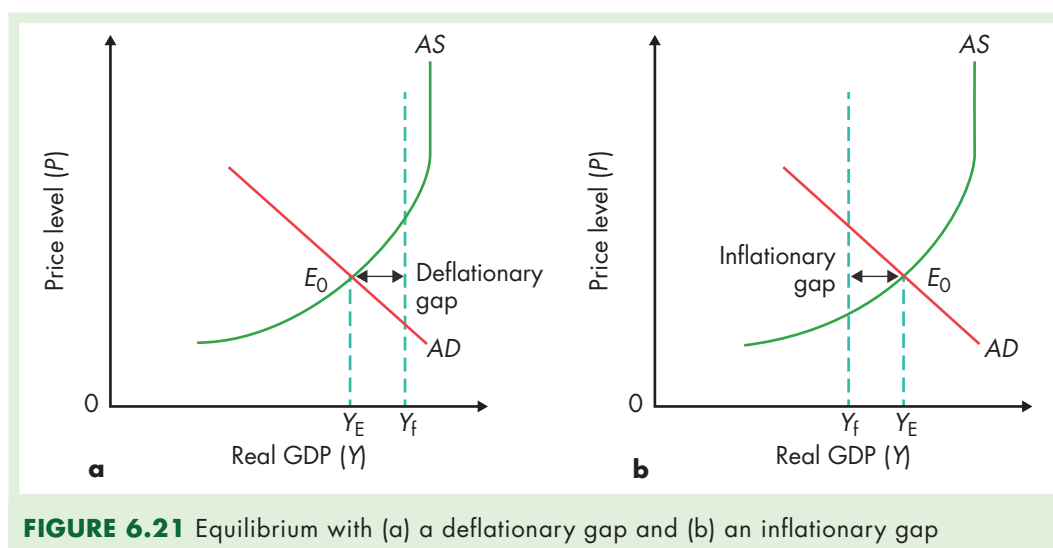


FIGURE 6.20 Macroeconomic equilibrium

Economists have long recognised that just because the economy is in equilibrium, this does not mean it is operating at full employment. Figure 6.21 shows two equilibrium situations where it does not.

- A **deflationary gap** occurs when the equilibrium production is less than the full employment GDP (that is, the economy would be experiencing unemployment above the natural level, which may result in downward pressure in prices).
- An **inflationary gap** occurs when the equilibrium production is greater than the full employment GDP (and attempts to expand production cause upward pressure on labour costs and prices).



6.3.5 Factors affecting aggregate demand and supply

The aggregate demand–aggregate supply model provides an analysis of the effects on the general price level and national product of changes to aggregate demand and supply. These changes or shocks cause the AD or AS curve to shift. The underlying cause of these shocks may come from many sources: economic, technological, foreign or political sources, or government-initiated policy. Coupled with these causes are the broader economic factors that interplay with aggregate demand and supply. These include changes in interest rates, movements in exchange rates, changes in consumer and business confidence, variations in the distribution of income and wealth across the population, variations in a nation's productivity and international competitiveness, to name but a few. Below are examples of inflationary and deflationary shocks and the factors that will affect both short- and long-run aggregate demand and supply.

Examples of inflationary and deflationary demand shocks

- Inflationary demand shocks cause AD to increase through a shift in the curve (and a slide up along the AS curve), which in turn causes the price level and real GDP to increase and unemployment to decrease. Examples include falls in interest rates, increases in money supply, increases in profit expectations, decreases in exchange rates, increases in government spending, cuts in income taxes and increases in foreign income.
- Deflationary demand shocks cause AD to decrease through a shift in the curve (and a slide down along the AS curve), which in turn causes the price level and real GDP to decrease and unemployment to increase. Examples include rises in interest rates, decreases in wealth, decreases in international competitiveness, cuts in government spending, expectations of a fall in the general price level, pessimistic profit expectations and rises in income taxes.

Examples of inflationary and deflationary supply shocks

- Inflationary supply shocks cause *AS* to decrease through a shift in the curve (and a slide up along the *AD* curve), which in turn causes the price level and unemployment to increase and real GDP to decrease. Examples include increases in money wages, increases in input prices, declines in productivity, reductions in the availability of raw materials, increases in business regulations and red tape, declines in the exchange rate and increases in the price of imported inputs.
- Deflationary supply shocks cause *AS* to increase through a shift in the curve (and a slide down along the *AD* curve), which in turn causes the price level and unemployment to decrease and real GDP to increase. Examples include decreases in money wages, decreases in input prices, increases in productivity, increases in availability of raw materials, deregulation, improvements in the exchange rate and decreases in the price of imported inputs.

Sometimes inflationary and deflationary gaps will close automatically. For example, in the long run, it is possible that a deflationary gap will automatically close as money wages begin to drop because of persistent unemployment. But, if wages are stuck in a downward direction, it may be politically necessary for active government economic policy intervention to reduce unemployment. Intervention could affect any of those factors listed previously by using either demand or supply management policies. Fiscal policy and monetary policy are the main aggregate demand management policies that are used, and these will be discussed in depth in Chapter 7 and Chapter 9 respectively, while supply management policies – which include microeconomic policy reforms such as industry productivity improvements, market deregulation and labour market reforms – will be discussed further in Chapter 11.

6.3.6 The economic cycle and macroeconomic objectives

Economies move through four key phases known as the economic cycle: boom, downturn, trough and recovery. These phases help to explain fluctuations in economic activity, and are closely linked to the government's macroeconomic objectives of stable growth, low unemployment and low inflation.

- **Boom:** GDP is growing strongly, unemployment is low and inflationary pressure may rise.
- **Downturn:** Growth slows, business confidence declines and unemployment may rise.
- **Trough:** Growth is at its lowest point, often with high unemployment and low inflation.
- **Recovery:** Economic activity begins to increase, supported by rising consumption, investment and government policy.

Policy makers use tools such as fiscal policy (see Chapter 7) and monetary policy (see Chapter 9) to smooth out the economic cycle and keep the economy close to its potential output.

CHECK FOR UNDERSTANDING 6.5

- 1 Define 'macroeconomic equilibrium', using aggregate demand–aggregate supply analysis.
- 2 What economic forces are at work when the general price level is above the general equilibrium level? Use graphs to explain your answer.
- 3 **Distinguish** between a deflationary gap with an inflationary gap. **Explain** how a change in *AD* or *AS* may remove a deflationary gap. What actions could the government take to remove a deflationary gap?

6.4 Global effects on macroeconomic issues

KEY IDEA

Contemporary macroeconomic issues should be considered in terms of Australia having an open economy subject to global economic forces.

Not all economic activity relevant to a country occurs within its own domestic markets. You will recall from earlier chapters the dynamic nature of the global economy and the extent to which Australia plays its part in international trade. Clearly, the economic interconnections between nations have a profound impact on an individual country's economic growth and prosperity. Events in markets overseas have a great influence on activity and growth in our own economy, and on our government's efforts to manage the economy.

Australia relies very heavily on its overseas trade (imports and exports) and capital investment and borrowing for continued economic growth. Thus, if the world price of wheat or coal or iron ore goes down, it can affect Australia greatly. If share prices on the New York Stock Exchange rise, then Australia's stock exchanges will almost certainly follow. Australia and Australian businesses are small players on the world scene. On the other hand, countries such as the USA, China and Japan have tremendous economic influence. Combined with this is the growing economic power of multinational corporations, many of which have incomes and asset bases larger than the GDPs of smaller countries. Consider the economic muscle of multinationals such as Apple, Google, Toyota and Microsoft, to name but a few, as they shift production, resources, capital and personnel around the globe with relative ease, based on changing markets and tax regimes.

6.4.1 External sector policy

Our government can have little control over overseas events, but, as we saw in earlier chapters, it does try to supervise and regulate overseas markets in various ways to influence our balance of payments and benefit our domestic economy. It does this through:

- tariffs, quotas, and administrative regulations to promote or restrict trade
- bilateral and multilateral trade agreements with other countries
- membership of international institutions such as the World Bank, the Asia-Pacific Economic Cooperation (APEC) forum or the World Trade Organization (WTO) to promote regional development or world trade
- assistance to encourage overseas investment or the establishment of import-replacement industries
- influencing the exchange rate to affect the value of our currency, trade patterns, capital movements and effects on our economy.

In both the fiscal (government spending and taxation) and monetary (interest rates and money supply) policy areas, decisions by our government and the RBA can be influenced by, or even overturned by, overseas events. For example, if the Federal Reserve Bank in the USA increases interest rates, the RBA will have to at least consider a similar move here. Likewise, if a major economy reduces its corporate tax rate (as the USA did at the end of 2017, with a reduction from 35% to 20%), then political pressure on the Australian Government from our

production sector will occur, as businesses lobby for their own corporate tax cuts in order to stay internationally competitive and attract foreign investment. These examples would clearly influence government decision making and, more broadly, the economic growth of the nation.

Policy in practice

Let us consider the impact of the RBA deciding to raise interest rates due, in part, to a rate rise by its US counterpart. For many years, government budget deficits were partly financed by overseas borrowing. Large amounts of private borrowing are also necessary because our propensity to save is relatively low. Unfortunately, foreign debt is now of considerable concern for Australia, as it has grown to represent a relatively high percentage of our GDP, and an interest rate rise would only add to this concern due to the higher cost of borrowings. It is particularly in the areas of foreign capital inflow, monetary policy and the exchange rate that problems can occur.

The Australian financial market is now very much integrated with world financial markets. As you have learnt, international capital is highly mobile. With improved information and communications technology and the lifting of restrictions on international money flows, large volumes of money readily flow across international borders. With the deregulation of the financial sector from the 1970s, foreign banks are now an integral part of the Australian banking scene. Australians can borrow overseas and buy overseas assets and financial securities, just as foreigners can do in Australia.



Boy Wirat

FIGURE 6.22 By raising cash rates, the RBA influences interest rates.

Whenever yields on Australian financial assets (that is, domestic interest rates: i_d) are higher than interest rates in the rest of the world (i_w), foreigners will wish to lend into Australia, as Australians will wish to borrow overseas to gain the benefit of lower interest rates, all other things being equal. The result of both of these transactions is a foreign capital inflow, F , into Australia. This can be summarised as:

$$\uparrow(i_d - i_w) \rightarrow \uparrow F$$

Such mobile foreign capital inflows can reduce the effectiveness of domestic monetary policy.

The effect of the capital inflow will actually depend on the exchange rate system in

operation. If a floating exchange rate system is in operation (as in Australia), the result will differ. Again, the foreign capital inflow needs to be converted to dollars. But this time, the increased demand for dollars will create a shortage, and force the exchange rate up. Extra dollars will be provided and the market will come back to balance at the higher exchange rate. There is no effect on the domestic money supply and no need for RBA intervention.

Unfortunately, the effectiveness of monetary policy can be hindered in another way. If the RBA conducts a tightening of monetary policy, higher interest rates result. This leads, as we have seen, to foreign capital inflow and an appreciation of the dollar. As the dollar (the exchange rate, or ER) appreciates, exports fall and imports rise. The current account balance deteriorates and our current account deficit (CAD) increases. The attempt to achieve a domestic economic goal has led to the foregoing of another – an external balance. The effects may be summarised as:

$$\downarrow Ms \rightarrow \uparrow i_d \rightarrow \downarrow I \rightarrow \downarrow AD \rightarrow \downarrow Y$$

but, in addition:

$$\downarrow Ms \rightarrow \uparrow i_d \rightarrow \uparrow F \rightarrow \uparrow ER \rightarrow \downarrow (X - M) \rightarrow \uparrow CAD$$

If you wish to delve further into the effects of the external sector and globalisation on our economy, you might like to revisit the earlier chapters in this book. The above is sufficient, however, for you to see how contemporary macroeconomic issues and policies should be considered in terms of Australia being an open economy subject to global economic forces, which must be taken into account by any government hoping to manage the economy successfully.

In the following chapters, we will examine more specifically the role of government in managing economic growth to achieve a number of key macroeconomic objectives through the use of fiscal, monetary and microeconomic reform policies.

CHECK FOR UNDERSTANDING 6.6

- 1
 - a **Recall** examples of how events in overseas markets influence our economy.
 - b **Recall** four ways in which Australia tries to regulate trade and overseas markets to protect its economy from overseas shocks.
 - c How serious is Australia's overseas debt? Has this position changed over recent years?
- 2
 - a **Describe** the link between domestic interest rates and foreign capital inflow.
 - b Under an exchange rate system in which the central bank wishes to manage the exchange rate, how is the money supply affected by a net foreign capital inflow?
- 3
 - a **Identify** the current phase of the Australian economic cycle using recent GDP and unemployment data.
 - b **Evaluate** how well recent government policy supports macroeconomic objectives at this phase.

R 6.1 Terminology

Select the correct term from the list below that describes each statement.

A Economic growth	F Keynesian theory
B Autonomous expenditure	G Equilibrium
C Multiplier process	H Deflationary gap
D Nominal GDP	I Aggregate demand (AD)
E Marginal propensity to consume (MPC)	J Inflationary gap
- 1** Economic theory based on the ideas of John Maynard Keynes, aimed at analysing and understanding the macroeconomic forces that determine aggregate production, income and employment, and providing ways of managing economic activity during a recession or depression through demand management
 - 2** The level of expenditure on total production or output that is planned at various price levels
 - 3** A balanced situation from which there is no tendency to change; for example, the level of output or income brought about by conditions in an economy
 - 4** A more than proportional change in the equilibrium level of national income resulting from a change in autonomous expenditure
 - 5** The proportion of an increase in income that is spent on consumption
 - 6** A sustained increase in the productive capacity of an economy over a specific period of time (usually one year), generally indicated by the increased availability of goods and services in the economy
 - 7** The value of final output of an economy's goods and services expressed in current prevailing prices with no adjustment for the effects of inflation
 - 8** The amount by which the equilibrium level of production and income falls short of the full employment level
 - 9** Those forms of expenditure that are independent of the levels of aggregate production or income; examples include investment expenditure because of technological change, government expenditure (such as a new school due to an election promise) or consumption increases due to demographic changes
 - 10** The amount by which the equilibrium level of production and income exceeds the full employment level

R 6.2 Multiple-choice questions

Select the correct response to each of the following:

- 1** Which of the following represents a leakage from the circular flow of income?
 - A** export payments
 - B** savings
 - C** investment expenditure
 - D** subsidies

Review of Chapter 6

- 2 Given the multiplier function below and a marginal propensity to consume of 0.8, **calculate** the increase in the equilibrium level of income for a hypothetical economy, if autonomous investment increased by \$50 million.

$$\text{Multiplier } (k) = \frac{1}{1 - \text{MPC}}$$

- A \$62.5 million
 - B \$625 million
 - C \$25 million
 - D \$250 million
- 3 Which equation describes the full, open economy version of the circular flow of income model?
- A $I + S + T = G + X + M$
 - B $I + G + M = S + T + X$
 - C $I + G + X = S + T + M$
 - D $S + M + X = I + G + T$
- 4 In calculating real GDP, the value of an economy's goods and services are:
- A expressed in current prevailing prices.
 - B expressed in current prevailing prices with adjustments for the effect of currency exchange rates.
 - C expressed in current prevailing prices with adjustments for the effects of inflation.
 - D expressed in current prevailing prices with adjustments for the effects of market interest rates.
- 5 A deflationary gap is said to exist when:
- A the full employment level of GDP equals the equilibrium level of GDP.
 - B the full employment level of GDP exceeds the equilibrium level of GDP.
 - C the full employment level of GDP is less than the equilibrium level of GDP.
 - D the full employment and equilibrium levels of GDP are both decreasing.
- 6 In graphical terms, which of the following would cause the aggregate expenditure line to shift upwards?
- A an increase in income
 - B an increase in exports
 - C an increase in taxes
 - D an increase in interest rates
- 7 Which of the following will cause a slide along the aggregate demand curve?
- A an increase in the stock of capital
 - B an increase in money supply
 - C a decrease in wages
 - D an increase in the price of exportables
- 8 If higher interest rates are to affect aggregate demand, they are most likely to do so through changes to:
- A consumption spending on non-durables.
 - B government spending.
 - C investment spending.
 - D export spending.

- 9 Which of the following is a supply-side factor of economic growth?
 - A decrease in interest rates
 - B increase in government spending
 - C increase in labour market productivity
 - D increase in interest rates
- 10 Which of the following is a demand-side factor of economic growth?
 - A increase in the number of foreign tourists
 - B improvements in skills of the labour force
 - C economies of scale
 - D discovery of a cost-efficient way of using solar energy
- 11 According to Keynesian economists, the most important factor determining the level of national income is:
 - A aggregate supply.
 - B aggregate demand.
 - C the money supply.
 - D the rate of interest.
- 12 Examples of deflationary demand shocks, which cause real GDP to decrease and unemployment to increase, include:
 - A rises in interest rates, decreases in wealth and cuts in government spending.
 - B falling interest rates, increases in wealth and boosting government spending.
 - C decrease in wages, falling interest rates and cuts in government spending.
 - D increase in wages, rises in interest rates and boosting government spending.
- 13 One supply-side mechanism that the government can use to stimulate economic growth is:
 - A increasing tariffs.
 - B reducing tariffs.
 - C increasing aggregate demand.
 - D decreasing aggregate demand.
- 14 The national accounts measure economic activity in terms of production in the economy. What are the three different approaches for measuring GDP?
 - A investment, consumption and production
 - B production, expenditure and investment
 - C income, production and consumption
 - D production, income and expenditure
- 15 The multiplier concept is important in macroeconomics because it shows that changes in investment:
 - A generate smaller changes in income and consumption.
 - B can lead to the creation of widespread unemployment.
 - C generate substantially greater changes in income and consumption.
 - D lead to increases in the amount of taxation collected by governments.

R 6.3 Activities

- 1 Figure 6.23 is a circular flow of income model showing a closed economy (that is, with no external sector) and some of the markets in which economic decisions are made. Note that the government sector has a budget deficit, even though the economy as a whole is in equilibrium. Complete the diagram by correctly labelling each of the money flows, numbered 1 to 8. Flows 7 and 8 have been added already.

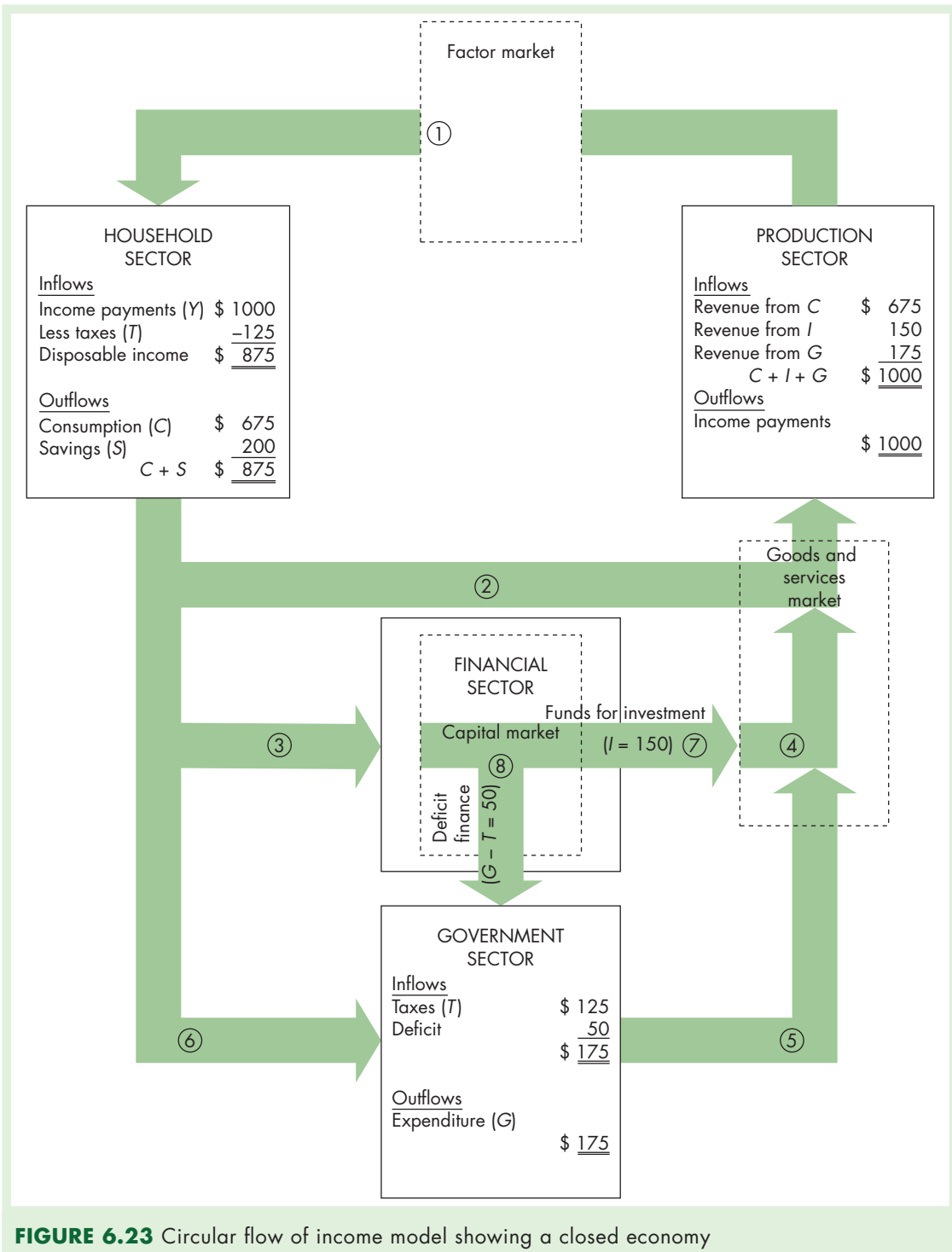


FIGURE 6.23 Circular flow of income model showing a closed economy

- 2 The mythical economy of 'Idealand':** Use the following figures to determine the equilibrium level of income within 'Idealand'.
- $C = 2000$
 - $I = 460$
 - $S = 400$
 - $X = 200$
 - $G = 200$
 - $M = 220$
 - $T = 240$
- 3 Aggregate demand in 'Econostan':** Examine the table in Figure 6.24. It shows the rate of spending by households on consumption (C) and investment spending by firms (I) at different levels of income (Y) in the nation of Econostan.
- a Complete the savings column and the aggregate demand column.
 - b Draw a graph showing these figures. Plot consumption on the vertical axis and income on the horizontal axis. Then superimpose an aggregate demand curve ($C + I$) onto your graph.
 - c In the table, when income rises by \$100, by how much does consumption increase? Hence, what is the marginal propensity to consume (MPC)?
Hint: MPC = Change in consumption divided by change in income.
 - d What is the value of the marginal propensity to save (MPS)?
Hint: Remember the rule $MPC + MPS = 1$
 - e At what level of income is there equilibrium in the level of spending and investment in Econostan?

FIGURE 6.24

Income (Y)	Consumption (C)	Investment (I)	Savings (S) ($Y - C$)	Aggregate demand ($C + I$)
\$	\$	\$	\$	\$
200	300	200		
300	350	200		
400	400	200		
500	450	200		
600	500	200		
700	550	200		
800	600	200		
900	650	200		
1000	700	200		
1100	750	200		

- 4 **Expenditure on real GDP for 'Mytopia':** The incomplete table in Figure 6.25 shows some of the data from the past five years of expenditure on real GDP for the fabled nation of Mytopia. You have been recently appointed as an economist to Mytopia's treasury.
- a Complete the missing table of data using your knowledge of how GDP is calculated.

FIGURE 6.25

Mytopia real expenditure on GDP (\$m)							
	Consumption	Investment	Government	Exports	Imports		
Year	C	I	G	X	M	GDP	GDP growth %
1	842	350	288	283	308	1455	3.42
2	856	361	337	295		1507	
3	878	355		331	338		5.04
4	901		358	353	339	1620	
5		329	365	379	334	1667	

- b Having completed the data table, **identify** the year with the greatest GDP growth and the year with the lowest GDP growth. Now, by examining and comparing the components of GDP for each of those years, suggest reasons for the changes in growth levels.

R 6.4 Investigation – research topics

- The Australian Government in 2020–21 took a Keynesian approach in its response to the COVID-19 pandemic with significant government spending policies focused on stimulating the economy. Conduct a research investigation into the Australian response using the following as a guide.
 - Identify** and **explain** the underlying causes of the COVID-19 stimulus package and why the government felt it needed to 'stimulate' the economy.
 - Identify**, explore and examine the Australian Government's response to COVID-19. What policies did it enact?
 - Identify**, explore and examine the Reserve Bank of Australia's response to the COVID-19 pandemic. What monetary policy measures did it enact?
 - Evaluate** the overall success of the government's response and the Reserve Bank of Australia's response. Were there any negative consequences? By what criteria should we judge the success of the each response?
- At the writing of this textbook, Australia and Canada had both experienced over two decades of uninterrupted economic growth. Conduct an investigation into both nations, comparing and contrasting the relative GDP components of their respective economies. In examining the strengths and weaknesses of both economies, reach a conclusion on which nation would be better positioned to weather a major downturn in the global economy. **Explain** how you arrived at your conclusion.

- 3 Using the concepts of leakages, injections and the multiplier process, **evaluate** the proposition that a recession in Australia could be overcome by an export-led recovery. What other demand management techniques could be utilised to avoid a downturn in economic growth?
- 4 Using data from the ABS and other online sources, **analyse** Australia's GDP growth trends over the past three decades. To what extent does Keynesian demand management explain the fluctuation of economic activity in Australia; or is it more the impact of global forces and trade agreements that have consistently secured our nation's strong economic growth?
- 5 The aim of economic growth is to achieve social objectives that benefit a society. As economists, we recognise that just pursuing economic growth for its own sake has potential negative consequences. Using online sources, investigate and **evaluate** the current Australian Government's approach to economic growth. Reach a conclusion on whether you think the government is pursuing economic growth as an end in itself, or as a means to achieving better social outcomes. In identifying the priorities of the government and its approach to future economic growth, you may like to consider:
 - what business industries are actively being supported
 - the current national energy policy
 - the current policy on climate change
 - the current trade priorities of the nation
 - the government policy approach to education and training
 - the current tax regime and its impact on the distribution of income and wealth.
- 6 **Analyse** how a recent change in government infrastructure spending affected aggregate demand and national income. **Evaluate** the extent to which this spending aligns with Keynesian multiplier theory.

Economics Challenge worksheets:

6.1 Economics Challenge

 Nelson MindTap

To access resources above, visit
cengage.com.au/nelsonmindtap





Song_about_summer/Adobe Stock Photos

7

Macroeconomic objectives

The Australian Government seeks to effectively manage the economy by adhering to a set of core economic objectives.

Focus questions and inquiries

- What are the government's main objectives in managing the Australian economy? How successful has it been in achieving these objectives over the past ten years?
- Why does the government have difficulty achieving all of its economic objectives at the same time?
- How do external events or the economic decisions made by other countries influence the government's management of the Australian economy?
- What policies does the government have available to use in changing economic, political and social conditions? How are the various stakeholders in an economy impacted by these changing policies?
- How can government management of the economy be evaluated?

This chapter will examine:

- major economic objectives of the federal government
- recent Australian federal budget outcomes and achievement of its macroeconomic objectives
- the economic cycle, and its features and phases
- key indicators of economic activity
- macroeconomic policies that are used to correct economic instability
- challenges encountered by economic policy makers in achieving all economic objectives simultaneously
- the role of automatic stabilisers in fiscal policy, and the role of discretionary spending in influencing aggregate demand and stabilising the economic cycle.

7.1 Managing the economy

CONCEPTS



Economic model: the simplification of a complex situation in the real world, usually represented in the form of a diagram; for example, the circular flow of income model, a graph or a mathematical equation

Economic problem: the problem of deciding or choosing how to satisfy unlimited wants with limited resources

KEY IDEA

The role of a democratically elected government is to serve the interests of the nation. A key role of government is managing the economy to achieve agreed objectives and promote sustained improvements in living standards.

As economists, we are always seeking to address the **economic problem** of scarcity. As a society, we recognise the importance of striving for a productive and sustainable use of scarce resources to ensure the long-term survival of humans and the planet. Therefore, an important question naturally follows for our elected government: ‘Is our economy making the best use of its limited resources?’ Associated with this are other questions, such as: ‘What is the total level of economic activity and how does the level of aggregate production compare with potential production?’ Revisiting the **economic model** of production possibility and the concept of opportunity cost from Units 1 and 2 may help the discussion.

Consider the production-possibilities curve shown in Figure 7.1. Assume an economy produces only two goods: mangoes and mobile phones. Each point on the curve represents a maximum combination of mangoes and mobile phones that the economy may choose to produce, using all of its economic resources. This could be 80 000 mangoes and 3000 mobile phones, as at point *A* on the curve, or 60 000 mangoes and 4500 mobile phones (point *B*), or

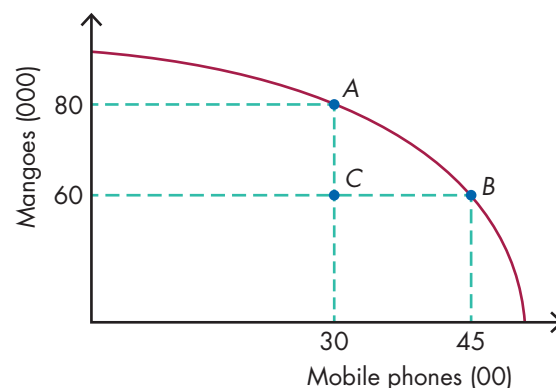


FIGURE 7.1 A production-possibilities curve: mangoes or mobile phones?

any other combination indicated on the curve. Combination *C* could also be produced, but that would leave some economic resources unused; this would be an inefficient allocation of resources and therefore an inferior economic choice compared to production at points *A* or *B*. The opportunity cost of producing mangoes at point *A* instead of point *B* is 1500 mobile phones; conversely, the opportunity cost of producing an extra 1500 mobile phones (point *B*) is 20 000 mangoes.

While this model provides a simple explanation of opportunity cost, governments and markets must consider the more complex problem of managing an economy with a multitude of goods and services.

In addition, the historical economic evidence suggests that all market economies are prone to macroeconomic instability. They regularly exhibit unacceptable levels of inflation and unemployment, and slow rates of economic growth. Because market economies cannot always self-correct, governments must actively monitor and intervene in the economy where necessary. This would help ensure that the objectives of macroeconomic stability and growth are achieved.

Recall that Figure 1.1 in Chapter 1 shows the flows within the circular flow of income. For the economy to be stable, each of the flows of income must be stable and the government, in managing the economy, must manage these flows when regulating the economy.

7.2 Economic objectives

CONCEPTS



Economic objectives: the most important goals of government economic policy

KEY IDEA

The federal government establishes and prioritises a number of economic objectives to achieve its goal of improving living standards and maintaining economic prosperity. Evaluating the Australian economy requires selecting key objectives, which may shift in priority depending on the political and economic context. A range of economic policy options exists to assist government in achieving the set objectives.

All economic activity has a purpose, whether at the individual level or the national level. Governments, as the elected representatives of the people, are responsible for determining and pursuing the economic and social objectives of the nation.

To evaluate the performance of the Australian economy, we must select a set of **economic objectives** or criteria. This immediately presents us with two problems. First, people are unlikely to agree on the appropriate criteria for evaluation, since what each of us considers important is often personal and subjective. Consequently, many people will devise their own different sets of criteria.

Second, even if we do come up with a set of criteria that most of us agree on, how do we form a general conclusion? If the economy performs well on one criterion, poorly on another and just satisfactorily on the rest, how do we judge the overall performance of the economy? Each criterion is unlikely to be considered of equal importance or value to all stakeholders, so we cannot simply average the results to get a single figure. However, if we could agree on the values or weights to allocate to each criterion, then we could use a weighted sum of the criteria to get a single indicator of the performance level of the economy.

7.2.1 Economic objectives

An individual perspective

If you were asked to assess the performance of the Australian economy, you might consider some of the following:

- What are my chances of getting a job? What are my chances of getting a job with good pay and prospects?
- Am I paying reasonable prices for the goods and services that I buy? Are prices rising faster than my income? Can I afford to participate in the housing market? Are interest rates and repayments on loans affordable?
- Can I buy good-quality, reasonably priced, Australian-made products? Do I prefer foreign-made alternatives?
- Will my superannuation be enough to retire on when I have finished working?
- How does my income and standard of living compare with those of others in Australia or overseas?

These questions might be asked from an individual's point of view.

A collective perspective

You might also question the performance of the economy in terms of the collective point of view; that is, from the point of view of the nation as a whole. Some questions might be:

- As people become disenchanted with an economic system that denies them education or job opportunities, will social problems such as drug-taking and crime increase?
- If people are left out of the economic system and become more alienated, more anti-social, and more upset with the poverty they experience or the inequities they observe, how safe a place will Australia be to live in the future?
- Will the loss of the resources and talents of the unemployed damage Australia's long-term economic growth prospects?
- Are we becoming too dependent on multinational corporations, and foreign capital, technology, ideas and culture?
- Are Australian producers and workers efficient, and is the quality of our goods high enough to compete in world markets?
- What impact is our economy having on the natural environment and future generations of Australians?

Criteria to assess the performance of the Australian economy

We judge the economy in terms of outcomes. Individually and collectively, we expect the economic system – our national economy – to achieve certain objectives. Economists have, over time, selected the objectives set out in Figure 7.2 on the following page as criteria to assess the performance of the Australian economy and the ways in which we can attempt to judge its performance.

Although the selection of goals is subjective, government institutions, different stakeholders and interest groups have identified these as desirable objectives.

FIGURE 7.2 Economic objectives and their measures

Economic objective	Definition	Measure in Australia
Sustainable economic growth	A sustained increase in the productive capacity of an economy over a specific period of time (usually one year), generally indicated by the increased availability of goods and services in the economy	• No fixed target • GDP growth
Internal stability (full employment and price stability)	A state of the economy in which there is full employment and acceptable levels of inflation; stable prices of goods and services are maintained	• Inflation target of 2–3% • Now considered by the Reserve Bank of Australia to be the situation where everyone who wants a job, has a job
External stability	The situation in which there are no unwanted movements of foreign reserves in the balance of payments, helping to ensure that Australia meets its financial obligations with the rest of the world	• Level of net external debt at a sustainable rate in relation to the nation's growth in GDP • Exchange rate • Trade balance
Improved standard of living	Improved lifestyle standards based on material and quantitative indicators, such as possessions, income, and education, health (including food and nutrition) and housing standards; includes job quality and conditions, and levels of happiness	• GDP per capita
Equitable distribution of income and wealth	A fair (not necessarily equal) final distribution of personal income, so that all can access basic goods and services	• Income inequality data
Sustainable development	Intervention to manage natural resources, such as in relation to forests, minerals, fisheries, agriculture and others	• Sustainable Development Goal (SDG) ranking

In the examination of each of the objectives we have identified that follows at 7.2.2–7.2.7, we will indicate some basic ways of measuring economic outcomes in order to assess the extent to which the objectives are being achieved. We will explore the relationships between various objectives, and at 7.2.8 we will consider the possible conflicts that can occur.

CHECK FOR UNDERSTANDING 7.1

- 1 Design and justify your own set of economic objectives from the point of view of:
 - a a university student
 - b a 72-year-old retiree
 - c an owner of a small manufacturing business
 - d a farmer.
- 2 How might priorities for the economic objectives of Australia change under the following circumstances?
 - a Global warming and climate change have a significant impact on weather patterns and sea levels.
 - b The opposition party of the day wins a federal election.
 - c Our major trading partner's economy enters recession.
- 3 How is the production-possibilities model relevant to the issue of Australia efficiently using its resources?
- 4 Refer back to Figure 1.1 in Chapter 1. How difficult is it for the government to keep the circular flow of income in balance all the time?

ECONOMICS DATA



As economists, we make sense of the world through the analysis of data. To assist you in your study of economic objectives, create a table or spreadsheet of the following economic data for Australia using the sites listed. Discuss your findings, and **identify** any trends and relationships that may exist between the various economic indicators.

FIGURE 7.3 Economic data for Australia

Economic indicator	Current year	Last year	Two years ago	Five years ago
Population				
Real GDP				
Consumer price index (CPI)				
Unemployment rate				
Labour participation rate				
Current account balance				
Reserve Bank of Australia cash rate				
Net foreign debt				
Company tax rate				
Australian Government budget surplus/deficit				



Weblinks
Reserve Bank of Australia
Australian Bureau of Statistics
Australian Taxation Office
Australian Treasury



Worksheet
7.1 Economics Data

7.2.2 Sustainable economic growth

CONCEPTS



Economic growth: a sustained increase in the productive capacity of an economy over a specific period of time (usually one year), generally indicated by the increased availability of goods and services in the economy

Nominal GDP: the value of final output of an economy's goods and services expressed in current prevailing prices with no adjustment for the effects of inflation

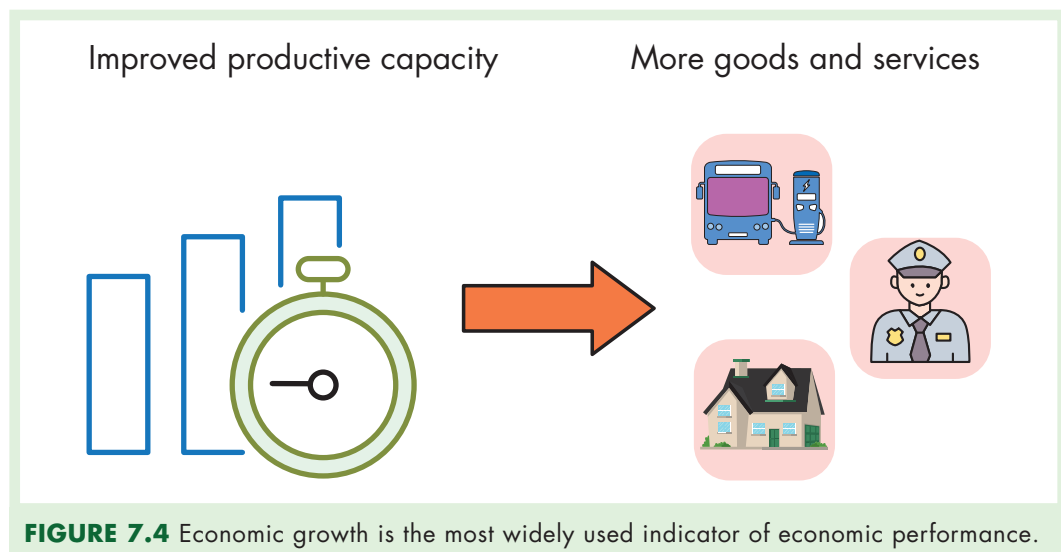
Real GDP: the value of final output of an economy's goods and services adjusted for the effects of inflation

Sustainable economic growth: a rate of growth that, if maintained correctly, should not create any significant economic problems for future generations; it sustains a nation's natural resources and the environment

KEY IDEA

Sustainable economic growth allows individuals to increase their consumption, and businesses to increase their output, thus creating jobs and thereby raising living standards and national income. The goal for government is to achieve and manage a rate of economic growth that will not produce significant economic problems for future generations.

As noted in Chapter 6, **economic growth** is one of the most commonly used indicators of economic performance. It is said to exist when an economy improves its productive capacity and, as a result, is able to supply its citizens with more goods and services. Economic growth is important because it helps to ensure that there is a balance between output of the economy and growth of the labour force, so that there will be neither a shortage nor a surplus of labour. As well, economic growth can significantly contribute to the standard of living of society.



Historically, the Australian Government has not consistently set a specific, explicit annual GDP growth target in the same way that some other countries do, but our economic policy has been shaped by general growth expectations to maintain healthy employment levels and improve living standards.

Sustainable economic growth

Governments around the world have started to realise the importance of **sustainable economic growth**, which identifies the trade-offs between fast economic growth today and the rate of future growth. Many economists and environmental advocates have long recognised that economies should aim for a rate of growth that does not create any significant economic problems or burdens for future generations. Accordingly, one of the keys is to sustain a nation's natural resources so that future growth is not jeopardised by the environmental impacts of resource depletion, pollution and climate change.

Changes in GDP

Changes in GDP help indicate the rate of economic growth, and allow the government to identify and forecast periods of boom, recession or stagnation. The government can then apply the appropriate stabilisation policy. The conventional measure of economic growth is the annual rate of change of GDP (see Figure 7.5). For a more meaningful measure, the effects of changing market prices must be eliminated by expressing the value of goods at constant or real prices; that is, **real GDP**. This is done by adjusting GDP by the rate of inflation. An alternative or 'raw' measure of GDP is **nominal GDP**, which is not adjusted for the effect of prices.

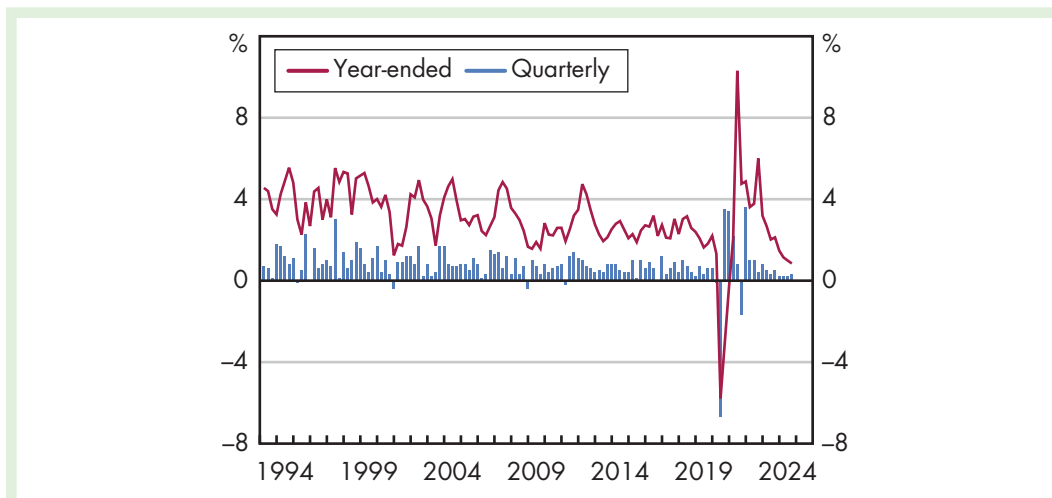


FIGURE 7.5 Australian GDP growth, 1994–2024

Source: The Australian Economy and Financial Markets, RBA Chart Pack, February 2025. © Reserve Bank of Australia. Licensed under CC BY 4.0.

Limitations to GDP as a measure of growth

There are limitations to the usefulness of GDP as the basis of a measure of sustainable economic growth, including the following:

- Some types of non-market production are not included; for example, vegetables grown in the home garden or accounts paid in 'cash' are not included in accounts (sometimes referred to as the 'black market').

- Changes in the quality of goods may not be measured; for example, when airline tickets are cheaper and flight quality is improved at the same time.
- GDP does not reflect how income or wealth is distributed; for example, it does not show whether growth benefits all citizens or primarily the wealthy.
- The actual cost of all production is not included; for example, the cost of an owner using their home as opposed to renting a house is not measured.
- Environmental and social impacts are not fully measured by GDP; for example, the building of more prisons and coal-fired power stations will add to the nation's GDP, but both have implications for future generations.

Alternatives to GDP as a measure of growth

An alternative to GDP as the basis of a measure of sustainable economic growth is to use more specific measures that indicate that a greater volume of material goods and services is being produced and consumed. Such indicators could include:

- steel consumption
- energy consumption
- housing approvals
- retail sales
- new motor vehicle registrations
- consumer credit.

Rapid growth, while sometimes desirable, places pressure on resources, prices and sustainable trade. Slow economic growth means employment may be threatened and businesses may not maximise profits.

CHECK FOR UNDERSTANDING 7.2

- 1 Research the current level of GDP for Australia and draw a graph with annotations indicating major economic events that may have influenced economic growth.
- 2 How useful might a change in energy consumption or housing approvals be as an alternative measure to changes in production of all goods and services?

7.2.3 Internal stability

CONCEPTS



Average propensity to consume:

measures the proportion of total income that households spend on consumption rather than saving; it is calculated using this formula: $\text{total consumption (C) / total income (Y)}$

Average propensity to save: measures the proportion of total income that households save rather than spending on consumption; it is calculated using this formula: $\text{total savings (S) / total income (Y)}$

Consumer price index (CPI): a measure of the average change in the price of a selected range (basket) of consumer goods and services

Cyclical unemployment: unemployment due to a downturn in the economic cycle

Frictional unemployment: unemployment related to time lags involved in the transition between jobs

Continued

Continued

Full employment: where everyone who wants a job has a job; note, however, that there will always be some level of unemployment

Inflation: the sustained increase in the general level of prices over a period of time (usually one year), measured by the increase in the consumer price index

Internal stability: a state of the economy in which there is full employment and acceptable levels of inflation

Natural unemployment rate: the rate of unemployment when the labour market is in equilibrium; it includes frictional and structural unemployment

Percentage change: measures the degree of change over time relative to an initial value and is calculated as follows: $((\text{new value} - \text{initial value}) / \text{initial value}) \times 100$

Price stability: a state of the economy in which there is little variation in prices; that is, there is low inflation

Seasonal unemployment: unemployment that occurs when jobs are only available during certain times of the year due to seasonal demand, such as in agriculture, tourism or retail during peak seasons

Structural unemployment: unemployment that occurs when economic needs change, causing jobs themselves to change or disappear

Underemployment: state of being underemployed; being in either a full-time or part-time job but on reduced work hours due to economic reasons; or being employed in a job that is inadequate with respect to the individual's current qualifications, skills or training

Unemployment: state of being unemployed or not having a job

KEY IDEA

The economic objective of **internal stability** refers to government policy measures that seek to maintain stable prices of goods and services while achieving full employment within an economy.

Price stability

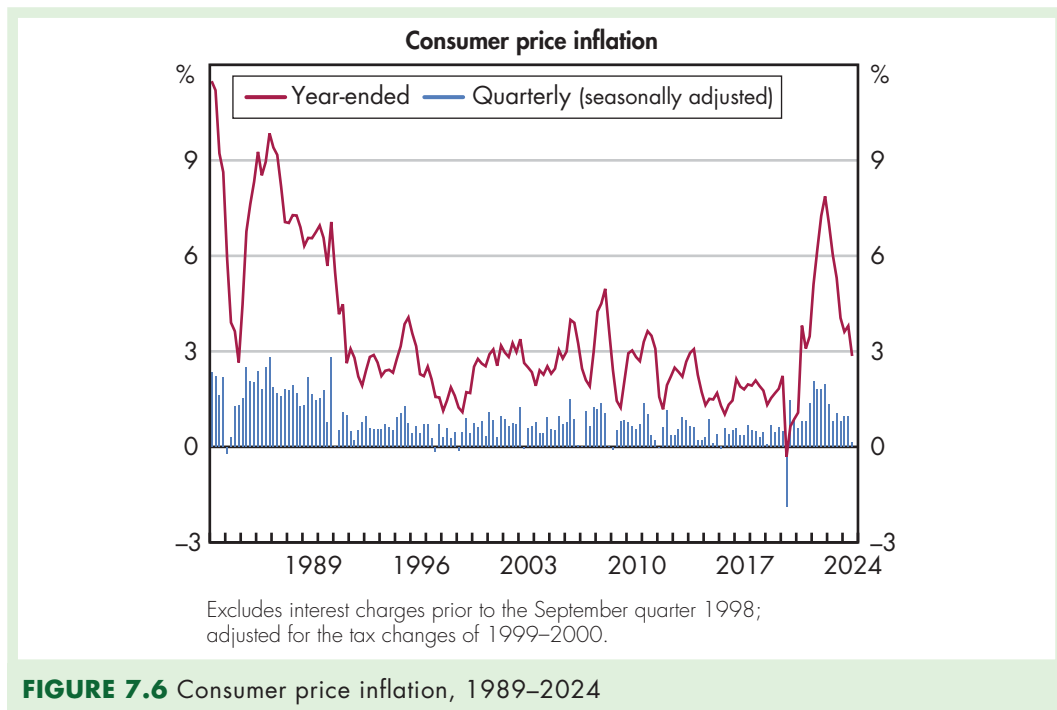
Price stability – or, rather, the avoidance of price instability, particularly in the form of excessive **inflation** – is a desirable economic objective from the point of view of individuals, businesses and the nation. Inflation can sometimes be caused when the **average propensity to consume** is too high. When this is the case, excessive demand may push up prices, causing inflation. Conversely, when the **average propensity to save** is too high, this can reduce spending, which can help lower inflation but may also slow economic activity.

The most widely cited and used measure of the change in general prices is the **consumer price index (CPI)**. The rate of inflation is measured as a **percentage change** in the CPI. The CPI is a weighted average of the prices of a representative 'basket' of goods and services that average householders would buy in the course of their day-to-day living. The weights reflect the importance of an item in a householder's budget. Because of the way the CPI is

calculated, changes in the CPI are usually interpreted as changes in the cost of living. It is also the reason that CPI changes are used extensively in the setting of salaries and wages. Later in this chapter, you will learn more about how inflation is measured and its effects on the economy (see Section 7.3).

Figure 7.6 illustrates how much prices have changed in recent years. Controlling inflation is essential because rising prices can lead to higher interest rates, reduce purchasing power for individuals and businesses, and harm international competitiveness. The government sees the control of inflation as one of its most crucial economic objectives, and accordingly the Reserve Bank of Australia (RBA) has been charged with the task of managing inflation. Currently the RBA has set an inflation target for the nation of 2–3 per cent annually.

Source: The Australian Economy and Financial Markets, RBA Chart Pack, February 2025. © Reserve Bank of Australia. Licensed under CC BY 4.0.



Full employment

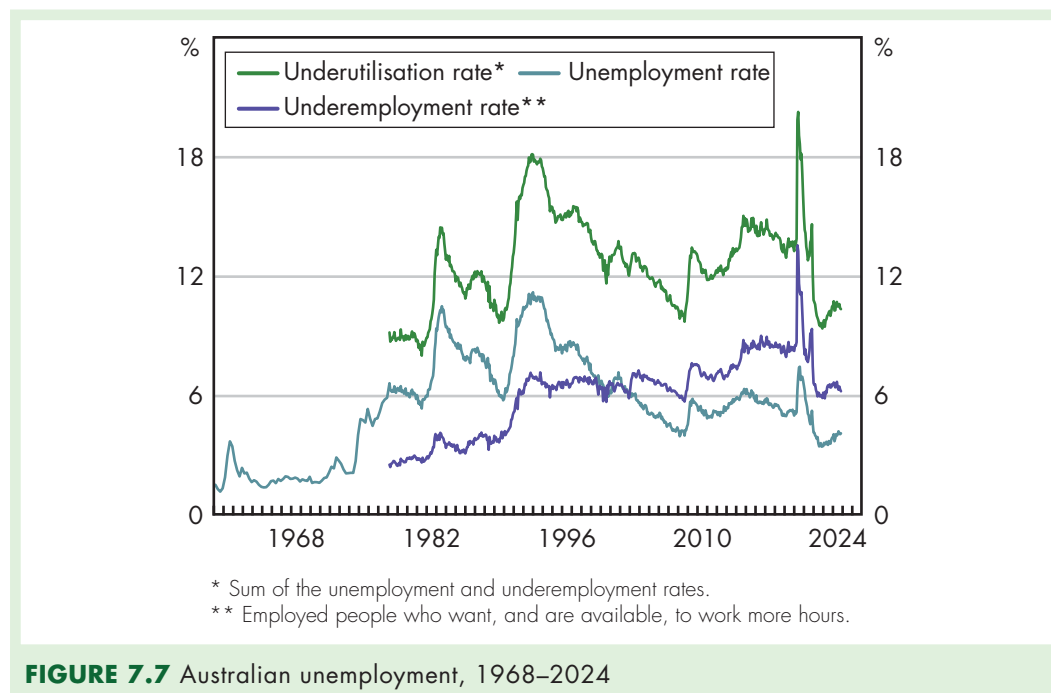
Full employment is usually taken to mean the maintenance of a socially acceptable rate of **unemployment**. In a modern economy, zero unemployment is not only unlikely but also undesirable. You can imagine the pressure on wages growth and the flow-on effects for inflation in an economy with zero unemployment.

Unemployment is undesirable for the individual and for the nation as a whole. For the individual, it means a loss of income and all the personal hardships that ensue. Some of the effects are long term. If unemployment continues for any length of time, it leads to the loss of relevant job skills, reduces the opportunities to develop new skills and has a negative psychological impact on the individual. For the nation, it means we are not using our human labour efficiently and suggests there is spare capacity in the economy.

Unemployment is measured as a percentage of the labour force. The difficult part of this measure is defining ‘unemployed’ and ‘labour force’. There are many situations in which it seems that people are not working, but they are not classified as being unemployed according to the official definition. In an ever-changing, flexible, market-driven economy, there will always exist a certain level of unemployment. This is the **natural unemployment rate**, which has two main components: **frictional unemployment**, where a person has left one job but not yet started another; and **structural unemployment**, where economic needs change and, along with that, jobs themselves change or disappear, displacing the workers who had previously been employed. In addition, there is **cyclical unemployment** (that is, unemployment due to a downturn in the economic cycle) and **seasonal unemployment** (which occurs when jobs are only available during certain times of the year, due to seasonal demand).

It is desirable to rid the economy of as much unemployment as is feasible, particularly cyclical unemployment. If a nation could remove cyclical unemployment and get the unemployment rate down to the natural rate, this would be acceptable. In other words, full employment does not mean zero unemployment. You will read more about unemployment in Section 7.4.

Unemployment and **underemployment** mean that an economy will experience lower levels of aggregate demand (consumption) and business confidence. In the case of high unemployment, government will experience an increase in welfare payments paid from taxation revenue. An increase in welfare payments has its own opportunity cost; for instance, a reduction in the pool of funds available for spending on education and health. Underemployment also presents a problem for communities and governments, as it leads to an underutilisation of labour resources, which means the economy is not producing to its full potential.



Source: The Australian Economy and Financial Markets, RBA Chart Pack, February 2025. © Reserve Bank of Australia. Licensed under CC BY 4.0.

7.2.4 External stability

CONCEPTS



Balance of payments: the summary of a nation's payments to, and receipts from, the rest of the world over a year

Capital and financial account: the record of the movement of capital funds between a nation and the rest of the world; made up of two sub-accounts: the capital account and the financial account

Capital and financial account items: inflows and outflows of money resulting from foreign investment, foreign lending and borrowing in the international financial markets

Current account: the record of day-to-day financial transactions involving the trade of goods and services between a nation and the rest of the world

Current account items: inflows and outflows of money resulting from buying and selling goods and services, and from earning income in the international marketplace

Deficit/surplus balances: differences between international receipts and payments

External stability: the situation in which there are no unwanted movements of foreign reserves in the balance of payments

Internal stability: a state of the economy in which there is full employment and acceptable levels of inflation

KEY IDEA

External stability refers to policies that help Australia meet its financial obligations to the rest of the world. The key focus of this economic objective is that Australia's net external debt position remains at a sustainable rate in relation to the nation's growth in GDP.

Australia has always been an open economy. International trade and finance make a significant contribution to the economic wellbeing of our citizens. With what we earn from export sales, we can purchase a variety of imported goods and services at a price and quality that would be difficult for us to achieve domestically. Furthermore, with international trade comes competition, which keeps our domestic producers in constant search for new products and more efficient production methods. If businesses or governments wish to carry out a number of investment projects and there are insufficient savings in Australia, or the cost of funds is too high, investors can borrow from overseas or attract foreign ownership to get the projects under way. International trade and finance provide a country with the choice of products and the capital resources that enrich the economic wellbeing of its people. With our economic prosperity at stake, government must be mindful, and must consider the question of whether Australia is paying its way internationally.

A key measure of whether a nation is 'paying its way' internationally is the **balance of payments**, which records all transactions with the rest of the world over a year. It records all the payments made to other nations, as well as all the payments received from other nations over the year. You will recall from Chapter 3 that foreign payments and receipts are recorded in two broad categories: **current account items** and **capital and financial account items**.

Major payments and receipts recorded in the **current account** include merchandise exports and imports, the export and import of services, and income from foreign investments. If Australia is paying out more foreign currency for these current account items than it receives from other nations, the balance on the current account is in deficit and a negative amount is recorded. If receipts exceed payments, the current account is in surplus and a positive amount is noted. As you can see from Figure 7.9, Australia has consistently run a current account deficit.



iStock.com/Narvikk

FIGURE 7.8 Exports and imports are paid with foreign currency.

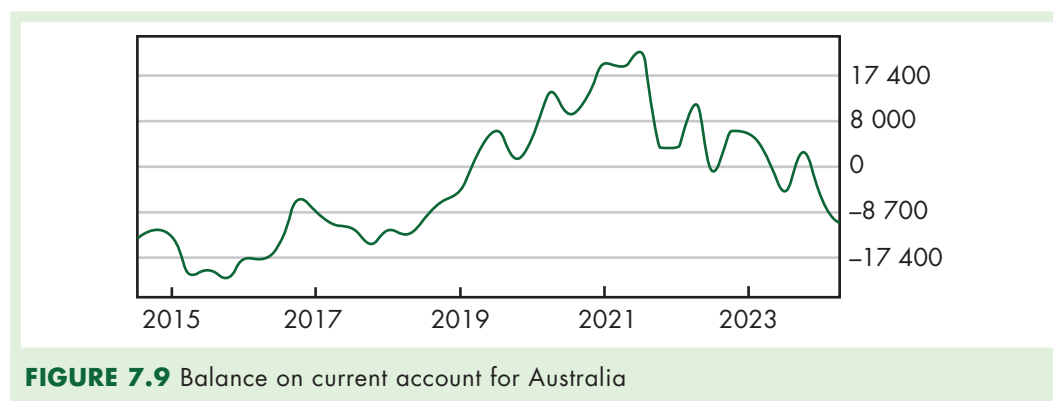


FIGURE 7.9 Balance on current account for Australia

The inflows and outflows of foreign currency that represent foreign investment, foreign loans and adjustments of reserve currency holdings are major items of the **capital and financial account**. The difference between inflows and outflows of investing and lending is the balance on capital and financial account. This difference may be a **deficit or surplus balance**.

Imbalances in the current account

Significant and persistent imbalances in a nation's current account can threaten the economic welfare of its citizens. A large surplus on the current account could mean that the nation's scarce resources have been used up to produce export sales, but very few real goods and services have been imported for the benefit of its citizens. This could mean that, instead of being turned into real goods and services, real resources have merely been converted into money credits in foreign banks. If a large foreign debt existed, a benefit of the surplus could, of course, be to use these credits to reduce that debt.

Another problem of a large current account surplus is the possible reaction of other trading nations. One nation's surplus is another's deficit, and deficit nations may react by imposing trade restrictions on the exports of goods and services of surplus nations, denying those nations the benefits of trade. An example of this exists when you examine the relationship between the USA and China. The USA has consistently run a current account deficit, while its largest trading partner, China, has consistently achieved a current account surplus. The result of this imbalance led the USA under President Donald Trump to impose restrictions and tariffs on Chinese goods to reduce the disparity in their trade relationship.

Large and persistent current account deficits force a nation to rely on capital and financial account surpluses to balance its international payments. If this means more loans from foreigners, it means more foreign debt. If it means a greater inflow of foreign capital, it means more foreign control of a nation's resources. To reduce these deficits, a nation's consumers, businesses and government may be forced to spend less and save more, to take a cut in income, to postpone investment projects and to slow economic growth. In other words, general economic wellbeing will fall, impacting the standard of living for a nation's citizens.

Figure 7.10 highlights the changing nature of Australia's net foreign debt both in real terms and as a percentage of GDP. Clearly, one of the roles of government is to monitor the nation's debt levels and manage external trade policies, thus ensuring external stability.

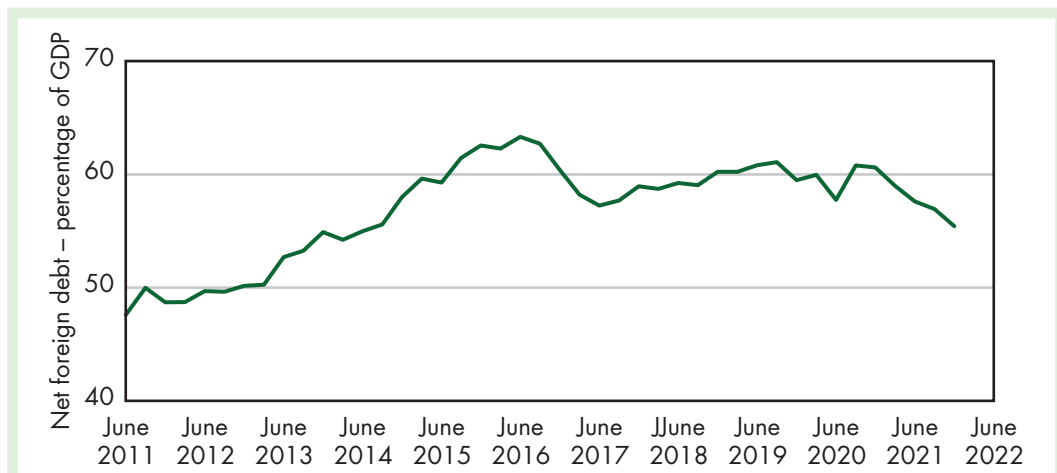


FIGURE 7.10 Australia's net foreign debt

CHECK FOR UNDERSTANDING 7.3

- 1 Explain** why full employment does not mean zero unemployment.
- 2** Outline the difficulties in accurately defining 'unemployment'.
- 3** Research the current levels of unemployment in Australia and Queensland. Why might the rates differ?
- 4 Recall** the benefits of international trade. **Recall** some of the costs of international trade.
- 5 Describe** the advantages and disadvantages of Australians spending less and saving more (ensure that you refer to the various sectors of the economy and the money flows between them in your answer).
- 6** Using Figures 7.9 and 7.10 as a starting point, conduct some online research to update the statistics for the current year. Then **analyse** the balance on current account and Australia's net foreign debt position. **Describe** and account for any trends you have identified.

7.2.5 Improved standard of living

CONCEPTS



Quality of life: the overall wellbeing of individuals according to their material living standards and a range of other considerations, such as health standards, education levels and happiness

Standard of living: a measure of lifestyle standards based on material and quantitative indicators, such as possessions, income, and education, health and housing standards

KEY IDEA

Standard of living is the means by which an economy of a nation as a whole aims to maximise the overall wellbeing of its people. It represents both quantitative and qualitative aspects of Australia's economic outcomes, relating specifically to a number of quality of life measures.

The term **standard of living** is one that frequently occurs in discussions, despite the fact that most people have some difficulty in defining the term explicitly. Definitions often include a mix of quantitative and qualitative measures. To some individuals, standard of living is measured by the size of a person's income and by the number and type of material goods that they own. To such people, a person who earns \$5000 a week and owns a 30-room mansion, a prestige car and a 20-metre yacht has a high standard of living. To other people, the term embraces non-material things such as freedom, self-esteem, health, a clean environment, equity and the availability of cultural facilities; for them, the **quality of life** is more important than the quantity of material things.

It is clear that there is some difficulty in making comparisons. Nevertheless, as a democratic nation we have a political process through which a majority opinion can be expressed on behalf of all citizens. Through our process of government, we have been able to mould the type of social structure and economy that appeals to most Australians.

As noted above, standards of living have both qualitative and quantitative outcomes, which include a number of quality of life measures, such as:

- standards of health
- food consumption and nutrition levels
- education and literacy
- job quality and conditions of work
- levels of happiness.

Standards of health



Health, nutrition and education are important qualities in a population. An unhealthy population incurs tremendous private and social costs; individuals and families all suffer. As a nation, it is in the interests of all to eradicate disease and sickness. Clearly, a healthy population can provide an economy with a productive workforce that assists in economic growth.

The availability of resources to provide medical facilities and to maintain high health standards is a reflection of the standard of living. A nation’s health standard is illustrated by such factors as the incidence of communicable diseases, death rate, infant mortality rate and life expectancy. A 2024 report conducted by the US-based Commonwealth Fund compared the health-care systems of ten high-income countries, focusing on issues of access to care, care process, administrative efficiency, equity and health outcomes. Figure 7.11 highlights Australia’s standing across the criteria.

FIGURE 7.11 National health-care systems

Ranking	Overall	Access to care	Care process	Administrative efficiency	Equity	Health outcomes
1	Australia	Netherlands	New Zealand	UK	Australia	Australia
2	Netherlands	UK	USA	Australia	Germany	Switzerland
3	UK	Germany	Netherlands	New Zealand	Netherlands	New Zealand
4	New Zealand	Sweden	Canada	France	Switzerland	Canada
5	France	New Zealand	Australia	Canada	UK	France
6	Sweden	France	Switzerland	Netherlands	France	Sweden
7	Canada	Canada	France	Sweden	Canada	Netherlands
8	Switzerland	Switzerland	UK	Germany	New Zealand	UK
9	Germany	Australia	Germany	USA	USA	Germany
10	USA	USA	Sweden	Switzerland	–	USA

Data from Commonwealth Fund. Source: <https://infoqram.com/mirror-mirror-2024-exhibit-1-1hnq41o95mxzk23>

Food consumption and nutrition levels



Related to health are the levels of food consumption and quality of nutrition. In Australia, much public attention is focused on the links between health and diet, exercise and stress. Of particular interest in recent years are the increasing levels of obesity across populations and the associated health implications of diabetes and heart disease. In 2024, Australia was ranked 46th in the world for obesity per capita. The worldwide prevalence of obesity has more than tripled between 1975 and 2022. Obesity is now recognised as one of the most important public health problems facing the world today. The trend toward highly processed diets and sedentary lifestyles is likely to have long-term economic impacts, reducing productivity and increasing health-care costs.

Education and literacy



Education and literacy levels are key components in the determination of living standards in any economy. For a country to be able to use modern technologies and to compete successfully in the international markets, it must have an educated labour force. An educated, literate population unearths potential entrepreneurial talent and assures occupational flexibility. It also provides social cohesion and fosters democratic processes. A literate person is able to participate in economic and political decision making. In 2017 the Organisation for Economic Co-operation and Development (OECD) published a report on the total level of expenditure by nations on their respective education systems, as a percentage of their GDP. Australia spends 5.8 per cent of GDP on educational institutions from primary to tertiary levels (including research and development). This is more than the OECD average of 4.9 per cent of GDP.

Job quality and conditions of work



Another significant contributor to improving standards of living relates to the quality of jobs and conditions of work on offer within a society. On average, Australians work a 38-hour week. Having a job matters for financial and personal wellbeing, but it is the quality of the job that impacts individual lives by providing a sense of fulfilment and belonging. Sociologists have long advocated that people who hold quality jobs tend to be healthier and more productive. This in turn helps business performance and ultimately impacts a nation's economic growth.

A framework to measure the quality of jobs should consider the three dimensions of earnings, which are quality, labour market security and work conditions:

- Earnings quality relates to the average earnings of the job in comparison with other jobs across the economy.
- Labour market security examines the risk of job loss and its economic impact on the individual.
- Work conditions scrutinise the non-economic aspects of jobs, including the nature of the work performed, working-time arrangements, and workplace health and safety measures.

Job quality is closely correlated with high levels of education within an economy. Since the 1980s, Australian governments from both sides of politics have advocated on the issue of job quality and continue to make it a workplace priority.

Levels of happiness



In 2012 the United Nations began an ambitious program to measure happiness within nations. It commissioned a Gallup World Poll to survey 155 countries on the level of happiness that exists within a sample of their respective populations. The reasoning behind such a survey was to provide data to assist governments and policy makers in the areas of societal wellbeing and sustainable development. As economists, it is not unreasonable to infer that countries that prosper economically and socially have happier populations than nations with struggling economies. Happier populations tend to be healthier and more productive, further contributing to national prosperity. Thus a self-perpetuating system evolves.

There have been 12 *World Happiness Reports* commissioned to date, and the most recent – in 2024 – used six criteria to measure happiness. Respondents to the survey were asked to evaluate their lives across the key indicators of economic wealth, social support, healthy life expectancy, freedom to make life choices, generosity and perceptions of corruption. Figure 7.12 highlights the top ten happiest nations, along with the bottom six.

FIGURE 7.12 World happiness scores, 2024

Rank	Country	Happiness score
1	Finland	7.741
2	Denmark	7.583
3	Iceland	7.525
4	Sweden	7.344
5	Israel	7.341
6	Netherlands	7.319
7	Norway	7.302
8	Luxembourg	7.122
9	Switzerland	7.060
10	Australia	7.057
138	Zimbabwe	3.341
139	Congo (Kinshasa)	3.295
140	Sierra Leone	3.245
141	Lesotho	3.186
142	Lebanon	2.707
143	Afghanistan	1.721

Source: *World Happiness Report 2024*

7.2.6 Equitable distribution of income and wealth

CONCEPTS



Distribution of income: the way that a country's income is spread among individuals within various socioeconomic groups

Equitable distribution of income and wealth: a fair (not necessarily equal) final distribution of personal income, so that all can access basic goods and services

Gini index (or Gini coefficient): a measure of income inequality within a population, ranging from 0 (perfect equality) to 1 (perfect inequality), where higher values indicate greater income disparity

You will recall a unit of study on income and wealth inequality in Units 1 and 2. The existence of poverty and inequities in the **distribution of income** and wealth mean that not all people enjoy the benefits of economic growth. Inequalities of wealth and income tend to be closely related to the level of attainment of the other measures of the standard of living. A nation may be economically rich – that is, have high and rising GDP per capita – but it would be difficult to conclude that all of its people enjoy the same high standard of living if there are significant pockets of poverty. The World Bank's most recent data on income inequality, measured by the **Gini index**, placed Australia with a score of 33.2 as at 2021. This indicates a moderate level of inequality. While the exact ranking in comparison to other countries was not highlighted, Australia's Gini index reflects relatively higher equality compared to countries with severe inequality. Governments have various policies (taxation, social security and welfare payments) to improve equity, although it is not reasonable or possible to achieve a completely **equitable distribution of income and wealth**.

Economists argue that there can be costs and benefits of inequality of income.

Costs

Essentially, the costs relate to how inequality in income and wealth tends to divide the population into distinctive social classes and place some people in a situation of poverty, with all of its associated difficulties. Poor families are disproportionately affected by social isolation, homelessness, drug dependency, domestic violence, health problems, illiteracy, unemployment and low educational attainment. Members of poor families are more likely to commit crimes, and more likely to be victims of crimes. The poor are often helpless against those who control economic power and the stigma associated with being dependent on welfare services.

Another cost to the economy, due to high income inequality in a community, is the fact that there will be less income available for consumption, and so aggregate demand would decrease. Reduced demand could lead to a slowing of economic activity and a reduction in employment. Falling income equality would place higher demands on the welfare component of the federal budget. So, a smaller pool of funds would be available for other government expenditure such as health, education and industry development.

There is, however, an alternative view.

Benefits

The effects of inequality of income can be seen as a benefit to the community in terms of market economics. The opportunity to achieve greater rewards for developing skills, taking on added responsibility and working longer hours serves as an incentive for workers to achieve

their needs and wants through their work. In addition, higher wages can be an incentive that will encourage workers to move to new work locations where and when they are needed. This can result in more efficient allocation of resources, increased competitiveness and economic growth, so improving the community's overall standard of living.

Income inequality can also encourage entrepreneurs to take risks. Removing the incentive of high income for successful decisions will result in fewer entrepreneurs. This would result in lower production levels, a loss in the innovation and creation of new products, fewer jobs and a lower rate of economic growth. Also, higher-income earners tend to save a higher proportion of their wages and salaries. Such savings are an important source of investment in the economy, as they increase the capacity of the economy to produce goods and services. For more on this topic, review Chapter 10 of *Economics for the Real World Units 1 & 2*.

CHECK FOR UNDERSTANDING 7.4

- 1 How might a country be economically rich but still provide a low standard of living for its population?
- 2 What issues determine your standard of living as a school student? **Compare** the top five criteria for your class with those provided in this chapter.
- 3 In what ways can seeking to improve the standard of living for Australia be at odds with conserving the environment? How can this be resolved?

ECONOMICS CHALLENGE



Figure 7.13 shows the 2022–23 rankings of Australia against other nations by the OECD, the World Health Organization (WHO), the World Bank and the United Nations on a number of key indicators. Conduct some online research to establish where Australia is ranked this current year, across the same indicators. Then discuss whether you think Australia's general standard of living has improved or declined since 2022–23, making sure you support your position with evidence from your research.

FIGURE 7.13 Australia's rankings, 2022–23

Standard of living indicator	Rank	Number of nations in study
Expenditure on health as a percentage of GDP	9th	45
Average life expectancy for population (85.4 for females and 81.3 for males)	3rd	45
Obesity per capita	5th	65
Literacy	18th	50
Expenditure on education per student	14th	40
Expenditure on education as a percentage of GDP	9th	40
Job earnings quality	10th	35
Labour market security	20th	35
Favourable working conditions	8th	35
Happiness world ranking	12th	155
Lowest income inequality (Gini coefficient)	96th	118
Gender pay gap	26th	35

Source: OECD, WHO, World Bank and United Nations

7.2.7 Sustainable development

CONCEPTS



Capital productivity: a focus on the relationship between the capital resources used in a production process and the output achieved, with the goal of seeking to maximise output per capital goods hour

Labour productivity: a focus on the relationship between the labour resources used in a production process and the output achieved, with the goal of seeking to maximise output per labour hour

KEY IDEA

An essential economic objective for any modern government must be to account for environmental and conservation concerns. Environmentalists have long argued that it is pointless surrounding ourselves with the modern goods and services that economic growth has provided if we destroy our environment in doing so and create hardship for future generations.

Governments must aim to achieve efficiency in resource allocation to minimise economic waste and maximise the efficiency with which a country uses its natural resources. Efficiency is achieved when the productive inputs are used to maximise production of goods and services that best satisfy society's needs and wants. This is important because resources are scarce, and the economy will be better off when desired production is maximised and wastage of resources eliminated.

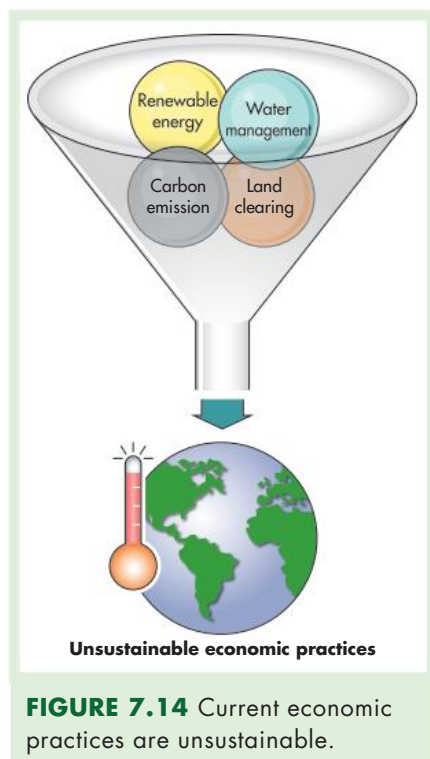


FIGURE 7.14 Current economic practices are unsustainable.

Efficiency can be measured by indicators such as **capital productivity**, **labour productivity** and the minimisation of environmental harm. Governments in recent decades are taking stronger policy action in relation to the monitoring and regulating of economic activity that directly impacts the quality of the environment. For example, land clearing, pollution (carbon emission), water management and renewable energy have been the focus of successive Australian governments, as political pressure is applied by the populace who recognise that current economic practices are unsustainable.

It is not just Australia that is undergoing a renewed environmental focus. Consumption and the economic problem of scarcity are common to all economic and political systems and to all economies, and thus all economic and political systems must address environmental issues arising from consumption.

Sustainable development is an economic and social objective requiring government intervention to manage natural resources, such as forests, minerals, fisheries and agriculture. No person, business, government or economy can act in isolation, so consideration

must also be given not only to local but also to global inter- and intra-generational equity issues. Accordingly, it is now recognised that government, households, markets and firms need to provide a coordinated and committed response to address the significant environmental problems of:

- global warming and rising sea levels
- degradation and loss of farming land, along with fresh water management
- overcrowding and rapid growth of many urban areas
- depletion of natural resources and biodiversity through habitat loss and the destruction of flora and fauna
- pollution of the natural environment: land, water and air.

These problems are by-products of the way economies pursue the goals of ever-increasing production and consumption of material goods and services. The challenge for government, environmentalists and economists is to find solutions that do not create a conflict with other economic objectives.

7.2.8 Conflict of objectives

KEY IDEA

Policy makers are confronted with the problem that some of the government's economic objectives are incompatible. Political decisions must be made about acceptable trade-offs, taking into account the interests and concerns of all stakeholders.

From the discussion so far on national economic objectives, it should be evident that the attainment of one objective may only be possible at the expense of others. Trade-offs are highly likely. Here are some examples:

- improved quality of the environment versus slower economic growth
- low inflation versus high unemployment
- rapid economic growth versus balance of trade deficit
- reduction in inequalities versus reduction in incentives to invest
- foreign investment versus loss of independence
- technological innovation versus unemployment
- trade barriers to protect jobs versus inefficient use of resources
- industry restructuring versus structural unemployment and poverty
- quantity of material outputs versus quality of working life
- growth from the more extensive use of easily accessible resources versus growth forgone from the more intensive or efficient use of resources.

Conflicts arise because different economic objectives are often supported by stakeholders with competing interests, who lobby policy makers to favour their priorities. This can often add to the political conflict arising out of economic decisions that may favour one set of stakeholders over another.

Ultimately, it is the government of the day that prioritises the nation's economic objectives and attempts to settle these conflicts. However, it is the obligation of all Australian citizens to participate in the democratic process of elections and hold government to account for those decisions.

Conflicts, however, are not always inevitable. The pursuit of one objective can assist the attainment of another. If there are no trade-offs – that is, if performance outcomes move in the same direction – it is easier to assess the overall performance of the economy. If we re-examine these economic objectives, we can identify possible complementary outcomes. Some examples are listed below:

- Technology that is labour-augmenting rather than labour-displacing gives job satisfaction, productivity and economic growth without increases in unemployment.
- A more efficient use of resources helps achieve the goals of economic growth and sustainable development; for example, a move towards renewable energy sources.
- More equitable access to better education, better health care and better jobs ensures that a nation makes use of all of its human resource potential.
- A low inflation rate improves the balance of payments.
- Raising labour productivity can improve export competitiveness, maintain employment levels and improve the balance of trade.

CHECK FOR UNDERSTANDING 7.5

- 1
 - a Research newspapers and journals for recent examples of conflicting and complementary economic objectives.
 - b **Analyse** the issues to determine causes and effects.
 - c What solutions or outcomes are proposed?
- 2 Now consider the following stakeholders: a labour union, a business association, an environmental organisation and a welfare group. **Construct** a newspaper article that presents how it might respond to the issue you identified in Question 1.

7.3 Measuring inflation

CONCEPTS



Deflation: the sustained decrease in the general level of prices over a period of time, measured by a decrease in the consumer price index

Headline rate of inflation: the percentage change in prices over time, as measured by the consumer price index; also referred to as the 'consumer inflation rate'

Inflation rate: the percentage change in prices over time, usually one year

Nominal value: value expressed in current quantities and prices

Real value: value in terms of purchasing power; that is, nominal value adjusted for price changes

Underlying rate of inflation: the headline rate of inflation, excluding one-off or seasonal factors that cause short-term volatility in the prices measured by the headline rate (for example, changes in government taxes, fluctuations in petrol prices or banana prices after a cyclone)

KEY IDEA

The accurate measuring and tracking of inflation is critical for any government seeking to manage the economic objective of price stability. Controlling the inflation rate at a low level is desirable in any economy because it helps to maintain the value of the nation's currency and protect the value of savings. This in turn helps to boost consumer and business confidence.

7.3.1 Measuring inflation

To obtain a measure of the **real value** of goods and services, we need to calculate the rate of inflation and so **deflate** their **nominal value**. This is useful, for example, when assessing the actual buying power of workers' wages during wage determination negotiations. To obtain a reliable estimate of the **inflation rate**, we must be able to measure changes in the prices of goods and services over time. This is not as simple as it sounds. The prices of all goods do not usually change at the same rate, or even in the same direction. In a given period, the price of cars, for example, may increase by 5 per cent, while the price of food may increase by 15 per cent and the price of a television may decrease by 2 per cent.



FIGURE 7.15 Inflation undermines wages.

The relative importance to the economy of the various goods and services presents another problem. A 5 per cent increase in the price of petroleum products would have a much greater impact on a nation's economic activity than a 50 per cent increase in the price of tennis balls.

7.3.2 Price indices

In an attempt to overcome these problems and obtain an accurate measure of the rate at which prices are changing, a number of different price indices have been constructed. The major function of a price index is to give a generalised and simplified view of price changes by summarising, in one figure, the general movements in prices of a number of commodities.

The main steps in compiling such an index are as follows.

- 1 **Selection of the regimen:** The regimen is the group or basket of commodities whose price changes are to be summarised in the price index. The basket may only consist of a representative sample of the goods and services whose price changes are being measured.
- 2 **Collection of accurate prices:** It is essential to gather accurate prices for the items in each period if an accurate measure of price changes over time is to be obtained.
- 3 **Selection of a base year or base period:** It is necessary to select a period as a standard with which prices in other periods can be compared. This should be a normal period (that is, not a period of high inflation or recession) if the index is to be meaningful. The aggregate expenditure on the regimen in the base period is denoted by the index number 100. The index number for subsequent periods can then be expressed as a percentage of the base year.
- 4 **Weighting:** The items in the regimen must be weighted according to the relative importance of expenditure on each item; for example, in a given period, most families would eat a greater quantity of meat than pepper.

To better understand the basic method of calculating a price index, consider the following example.

Calculating a price index

Imagine a very simple economy, producing and consuming just four products: designer T-shirts, haircuts, soft drinks and bus travel. Figure 7.16 sets out the quantities produced and purchased, and the prices paid, in Year 1 and Year 2. The question is whether prices, on average, have changed from Year 1 to Year 2. A price index will give us the answer.

FIGURE 7.16 Market prices, weightings and expenditure in a hypothetical economy

Product	Weight	Price: Year 1 (\$)	Expenditure (\$)	Price: Year 2 (\$)	Expenditure (\$)
T-shirt	1	45.00	45.00	35.00	35.00
Haircut	5	20.00	100.00	25.00	125.00
Soft drink	15	2.50	37.50	2.80	42.00
Bus travel	20	3.00	60.00	3.50	70.00
Total			242.50		272.00

If I buy the same basket of items in both years and total expenditure rises from \$242.50 to \$272.00, it must be due to price rises from Year 1 to Year 2. The total weighted expenditures can now be used to derive the price index numbers that are usually expressed in relation to a base period that is given the value of 100:

$$\begin{aligned}
 \text{CPI} &= \frac{\text{Net weighted total price}}{\text{Old weighted total price (base)}} \times 100 \\
 &= (272.00 \div 242.50) \times 100 \\
 &= 112.16
 \end{aligned}$$

So, with rounding, the CPI is 112, which is a 12 per cent increase over the previous year.

7.3.3 CPI

The CPI is the most widely used and referenced price index in Australia. The composition and weightings of the basket of goods and services used in measuring the CPI are adjusted in line with changes in the pattern of personal consumption. Figure 7.17 compares the weightings of the 1963, 1986, 1992, 2000, 2010, 2017 and 2024 indices. While weights are generally reviewed every five years, in 2017 a discussion paper was published by the Australian Bureau of Statistics (ABS) advocating the benefits of updating the weights of the CPI components on an annual basis.

FIGURE 7.17 Weighting of CPI components

Group	Dec 1963 (%)	Dec 1986 (%)	Jun 1992 (%)	Jun 2000 (%)	Jun 2010 (%)	Jun 2017 (%)	Jun 2024 (%)
Food	31.6	21.3	18.3	17.7	15.44	16.09	17.00
Clothing	18.8	7.8	6.3	5.2	3.91	3.55	3.10
Housing	12.0	13.5	15.9	16.5	19.53	22.68	23.00
Household equipment and operation	12.6	13.6	18.4	11.3	9.61	9.39	8.43
Transportation	11.3	16.4	16.0	15.2	13.11	10.32	10.32
Tobacco and alcohol	7.9	8.5	7.5	7.4	6.74	7.09	7.00
Health and personal care	N/A	7.5	6.8	4.7	4.70	5.43	5.40
Recreation and education	N/A	11.4	10.9	14.5	14.28	16.98	17.00
Communication	N/A	N/A	N/A	2.9	3.31	2.68	2.68
Financial and insurance services	N/A	N/A	N/A	N/A	9.31	5.80	5.80

Source: ABS

ECONOMICS IN ACTION



Use Figure 7.17 to do the following:

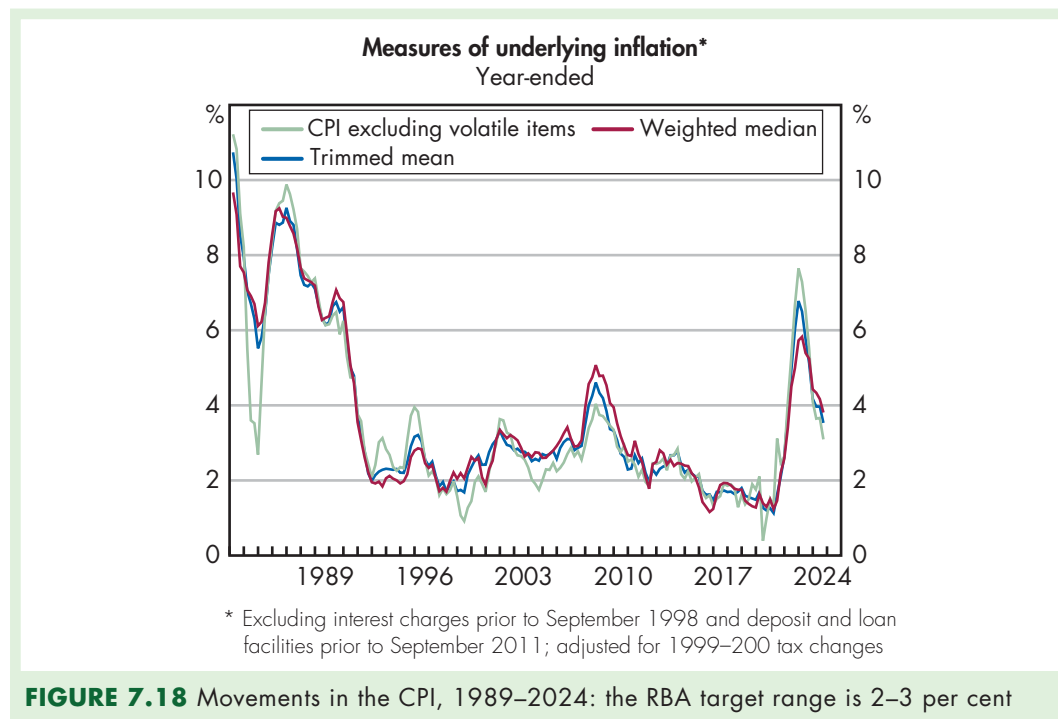
- 1 Draw a line graph to show the changes in the CPI weightings over time. Using a different colour for each category would be a good idea.
- 2 Develop reasons why the following categories have changed:
 - a food
 - b clothing
 - c housing
 - d household equipment and operation
- 3 To what extent do you think the rising Australian standard of living and increasing household income have brought about these changes?

Although the CPI is probably the best available measure of inflation and changes in the cost of living in Australia, it has several shortcomings:

- **The CPI measures only price movements at the retail level:** If wholesale or producer prices are moving in a different direction from retail prices, the effects will not show in the CPI.
- **The CPI does not measure increases in the cost of living resulting from changes in the mode or style of living:** It does not recognise that the composition of households varies greatly, and therefore their consumption patterns will also differ. Thus, a rise in the CPI as a result of increased beer and tobacco prices will have little impact on the cost of living of non-drinkers and non-smokers.
- **The price and quality of a product may change, but quality changes are not readily accounted for in the CPI:** If prices rise but quality rises faster, it is not clear whether the cost of living has, in fact, risen.

These shortcomings make the CPI a relatively inaccurate measure of inflation as it affects the cost of living. Nevertheless, it has proved an adequate measure of inflation in relation to the economy as a whole, and the RBA uses it as a methodology to set an inflation target of 2–3 per cent annually.

Some commentators distinguish between the **headline rate of inflation** measure and the **underlying rate of inflation** measure. Many market prices for products sold in the domestic economy are influenced by seasonal factors, international financial and pricing arrangements (for example, petrol pricing) and government charges. Changes in government charges themselves are often tied automatically to price changes. The underlying rate of inflation (see Figure 7.18) is an attempt to identify the price changes resulting from the real demand and supply forces at work in the domestic economy, and not those caused by temporary or institutional arrangements. The underlying CPI measure excludes seasonal factors, petrol prices, and government and financial charges, which are included in the headline rate.



Source: The Australian Economy and Financial Markets, RBA Chart Pack, February 2025. © Reserve Bank of Australia. Licensed under CC BY 4.0.

7.3.4 Forms of inflation

CONCEPTS

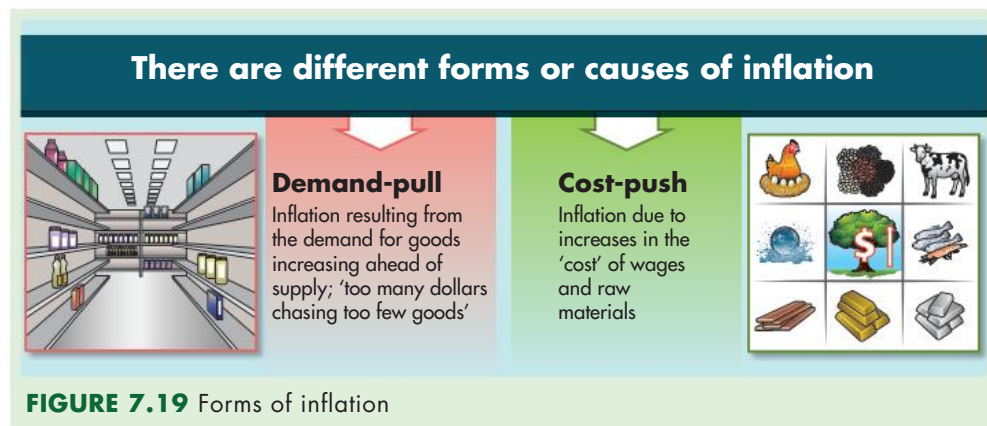


Cost-push inflation: inflation that results from rising production costs

Imported inflation: inflation that results from an increase in the price of imports

Demand-pull inflation: inflation that results from excessive demand

We have defined 'inflation' as a sustained general rise in prices over time. It is usually classified according to the economic pressures that cause the price increases. Economists normally recognise two main forms of economic pressure: **demand-pull inflation** and **cost-push inflation**.



Demand-pull inflation

Price rises may occur if the aggregate demand for goods and services exceeds the aggregate supply of such goods and services. The usual description of this situation is 'too much money chasing too few goods'. For example, in any given period with full employment of all factors of production, the economy is capable of producing a definite, limited quantity of goods and services. The actual quantity will depend on:

- the country's natural resources
- the size, skill and willingness of the workforce
- the level of technology
- the capacity of the available capital equipment
- the economic policy of the government.

If, during this period of full employment, producers and the government attempt to purchase more goods and services than are available, the result will be similar to an auction where prices are forced upwards as buyers try to outbid each other for the scarce items available. Inflation that results from excessive aggregate demand pressure is known as demand-pull inflation.

Cost-push inflation

Price increases may be the result of rising production costs. The price of any commodity sold in Australia reflects the total of the various component costs of production. These include the

cost of labour (wages and salaries), the cost of imports, capital depreciation, rent, interest and profits. Labour costs usually represent the largest component of production costs.

Rises in any of these costs may be affected, to a certain extent, by increased efficiency and productivity or by firms accepting lower profit margins, but there are limits to a firm's ability to absorb increases. If costs rise beyond those limits, they will have to be passed on to the buyer in the form of increased prices. Inflation that results from increasing production costs is known as cost-push inflation. Australia is particularly exposed to **imported inflation** due to our high level of imports. For example, when a local manufacturer imports capital goods for their production process, the high cost of those goods will flow through to the final cost of their finished product. Compounding this problem is the fact that imported inflation is also caused by fluctuations in a country's exchange rate. As a currency depreciates, the price of imports rises, feeding into the domestic market and impacting the local economy's inflation rate.

Although it is possible, in principle, to distinguish between the various types of inflation, in practice it is often extremely difficult to determine whether aggregate demand or cost is the principal cause of a particular period of inflation.

7.3.5 Effects of inflation

CONCEPTS



Inflation expectations: the opinion that households and firms have of the future rate of inflation, which is then factored into their saving, purchasing and investing decisions; these are heavily influenced by the rates experienced in the past

Investment: the purchase of capital equipment; that is, machines, equipment,

factories etc. that firms need to enable them to produce

Redistribution of income and wealth: the reallocation of income and wealth using taxes and other means to transfer money and assets from one group in the economy to another

Whatever its origin, inflation must be controlled because it causes serious problems and distortions in the economy. It penalises many sectors of the community (although it may temporarily benefit others) and causes an undesirable allocation of resources.

Effects on distribution of income and wealth

Most economists regard the haphazard **redistribution of income and wealth** as the main effect of inflation. If the inflation rate is higher than expected, there will be winners and losers.

- Rapid inflation benefits borrowers at the expense of lenders and savers (that is, those who hold monetary assets) because interest rates have not taken into account an unexpected rate of inflation. People on fixed incomes usually suffer more than other sections of the community. For example, retired people often depend on savings, superannuation funds or pensions (which remain fixed), unlike wages and salaries (which rise along with prices).
- Highly organised groups of employees who are able to obtain substantial wage increases will suffer less than other groups.

- In countries with a progressive taxation system, such as Australia, there is often a major redistribution of income from the private sector to the government. As incomes rise, wage earners move into higher tax brackets (bracket creep) and a greater percentage of their income goes to the government in tax payments. Governments also gain because they usually borrow from the private sector and benefit from the sluggish rise in interest rates.
- If the inflation is mostly confined to one country, primary producers and others who depend on exports for a large portion of their income may suffer. Inflation increases the prices of Australian exports and leads to a drop in demand for Australian commodities in overseas markets. This may induce the government to alter tariffs or exchange rates to improve the balance of payments and to protect Australian exporters. Such changes may have adverse effects on productivity.

Effects on production and investment

In addition to these effects, inflation distorts the allocation of resources. It encourages people to invest in relatively unproductive assets – for example, real estate or precious gems – and discourages **investment** in productive capital, mainly because of rising labour costs and higher interest rates. This results in a decline in productive capacity. In the long run, a reduced productive capacity may aggravate inflationary pressures. For example, when demand increases, productive capacity is exceeded earlier, and upward pressure on costs and prices will be apparent sooner than if productive capacity had been expanded. Inflation may, in the long run, perpetuate itself or, depending on its severity, increase the strength of future inflationary pressures. This may force interest rates even higher in an attempt to induce investors to return their money to the capital market so that it is available for government projects and the expansion of productive capacity.

Effects on business confidence and expectations

With severe inflation, there is a marked widening of the range of possible future inflation rates and an overall climate of general instability. This has implications for **inflation expectations** and results in added uncertainty about future prospects for jobs, incomes and wealth. As industry faces rising costs and falling real returns, business confidence tends to decline, which again reinforces the long-term effects on productive capacity.

Effects on society and household expectations

There are many social costs associated with severe or prolonged inflation, including the following:

- Industrial unrest increases because of growing concern about maintaining real wages and wage relativities.
- Unemployment often increases because of the effects mentioned previously (redistribution of income and wealth, loss of world markets, effects on production and investment, and damage to business confidence) and, in particular, from instability in the capital market.



FIGURE 7.20 Severe or prolonged inflation leads to a rise in unemployment.

iStock.com/JLGutierrez

All this will lead to increased antagonism and distrust between different stakeholders within the economy and to general social unrest. Inflation has many undesirable effects on both the economic and social life of all sectors of the economy. In the following chapters, we will discuss various methods available to the government to overcome this problem.

7.3.6 Price stability: an important economic objective

The government sees price stability as one of its most important objectives because of the flow-on effects it has through the economy, and for this reason the RBA has set an annual inflation target of 2–3 per cent.

Controlling the inflation rate at a low level is most desirable in any economy because it:

- maintains the value of money
- protects the value of savings
- keeps nominal and real interest rates as low as possible
- boosts business and consumer confidence
- promotes productive investment, long-term growth and job creation
- protects our international competitiveness and exchange rate volatility
- protects the equitable distribution of income and wealth.

At various times, inflation in Australia has not been very well controlled. In December 2022, the inflation rate reached 7.8 per cent – a high not seen since the 1990s, but in 1974 it reached 17 per cent. Rapid inflation erodes the value of money over time and reduces the value of savings. Interest rates increase and this adversely affects consumption spending, while at the same time encouraging speculative investment. There is an increase in economic uncertainty, reducing economic growth and job creation. People on fixed incomes are negatively affected and international competitiveness is eroded.

CHECK FOR UNDERSTANDING 7.6

- 1 **a Recall** the meaning of inflation.
b How does the underlying rate of inflation differ from the headline rate of inflation? Why have two rates?
c What is an acceptable rate of inflation for Australia?
- 2 **Explain** the main steps in compiling a price index.
- 3 Define the differences between cost-push inflation, imported inflation and demand-pull inflation.
- 4 **Describe** the effects of inflation on the economy by referring to householders, businesses and governments. Draw up a table like the one below and, from your reading, research and discussion with others in the class, complete the columns.

Effects of inflation		
Those who gain	Those who lose	Impact on investment

- 5 **Explain** why price stability is considered to be one of the most important economic objectives of the Australian Government.

7.4 Measuring unemployment

CONCEPTS



Deflationary gap: the amount by which the equilibrium level of production and income falls short of the full employment level

Employed person: a person who works at least one hour per week

Hidden unemployment: refers to individuals who are not actively seeking work, but would be willing and available to work under the right conditions

Labour force: the total number of people, over the age of 15, currently employed plus the total number of people, over the age of 15, currently unemployed but actively engaged in seeking a job; also known as 'working population'

Labour force underutilisation: refers to the percentage of people in the workforce who are not fully using their skills, time or

potential in employment; it gives a broader picture of employment issues than the unemployment rate

Non-accelerating inflation rate of unemployment: the lowest unemployment rate that can be sustained without causing wages growth and inflation to rise; it helps economists gauge how much 'spare capacity' there is in the economy

Participation rate: the percentage of the population over the age of 15 that is in the labour force

Unemployed person: a person who is actively but unsuccessfully seeking employment

Unemployment rate: the percentage of the labour force that is unemployed

KEY IDEA

Unemployment is another significant problem associated with economic instability. Long-term unemployment in particular is a major source of economic and social hardship. The political survival of governments very often depends on their ability to sustain low levels of unemployment.

7.4.1 Defining unemployment

The **unemployment rate** is one of the main indicators used to judge the performance of an economy. It has a major influence on a government's decisions affecting economic policy and management.

In Australia, the ABS estimates the number of people out of work. The ABS estimate is derived from a monthly population survey of households throughout Australia.

For the purpose of its estimates, the ABS defines **unemployed persons** as those in the **labour force** (that is, the civilian population, aged 15 years and over) who are not employed but who are actively looking for work and who are available to start work. **Employed persons** are defined as those who work at least one hour per week. The labour force therefore consists of those of the population who are of working age (over 15 years) and who are presently employed, or actively looking for and available to start work. Not everyone over the age of 15 years wishes to join the labour force.

The proportion of the population over the age of 15 that joins the labour force is described as the **participation rate**. Accordingly, the total labour force is made of all individuals who are employed, plus all those out of work who are actively seeking a job. The unemployment rate is the percentage of the labour force that is unemployed. The overall rate of unemployment between 2014 and 2024 has fluctuated between 5.0 per cent and 6.3 per cent (see Figure 7.21).

While the unemployment rate attracts the most political and media attention, changes to the employment levels and participation rates are also indicators of the economic performance of an economy. These measures are related. For example, a rise in the unemployment rate may be accompanied by an increase in employment levels. This may be due to an increase in the participation rate. Even if the unemployment rate rises, growth in participation and employment levels may indicate an expanding economy and increased job confidence.

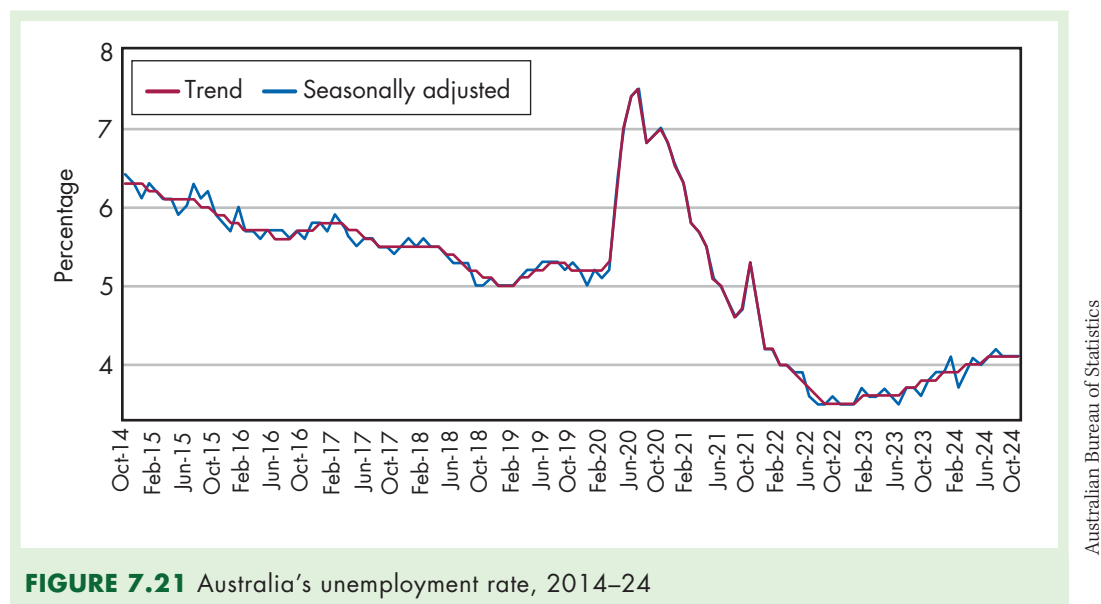


FIGURE 7.21 Australia's unemployment rate, 2014–24

7.4.2 Types of unemployment

Before the government can plan policies to tackle unemployment, it must know why particular groups are unable to find jobs. Usually a number of different types of unemployment will be present at the same time. Each type will require a different method of attack if it is to be overcome. As previously outlined in Section 7.2.3, there are four different types of unemployment:

- 1 **Frictional unemployment** occurs when people change jobs. For a short period of time, they will be unemployed while they search for a new job. In a market economy we will always expect to see a level of frictional unemployment. It would be a cause of concern if it did not occur. Can you suggest why?



FIGURE 7.22 Frictional unemployment

- 2 **Structural unemployment** results from changes to the types and locations of jobs. Different types of workers with different skills will be required as a result of the development of new industries and products, technological changes and new methods of production. Workers will need to relocate and/or retrain if they are to offer marketable skills to potential employers. If they do not, they lose potential employment and possibly remain unemployable for a long period of time.
- 3 **Cyclical unemployment** occurs as a result of fluctuations in economic activity through phases of expansion and downturn. In times of downturn, when aggregate demand is low and production slows, workers are retrenched. Cyclical unemployment is a major source of the changes in the unemployment rate.
- 4 **Seasonal unemployment** occurs because of the seasonal nature of some occupations, such as ski instruction, sheep shearing and fruit picking.

Other employment concepts that are used in assessing economic performance are disguised unemployment and the natural unemployment rate.

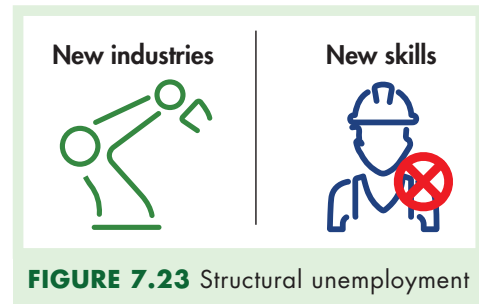


FIGURE 7.23 Structural unemployment

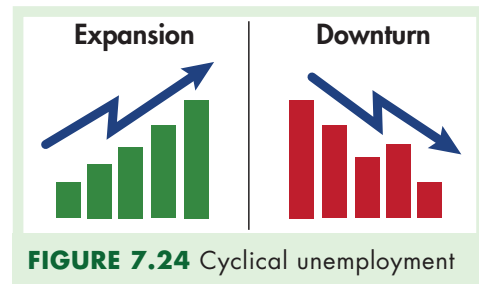


FIGURE 7.24 Cyclical unemployment

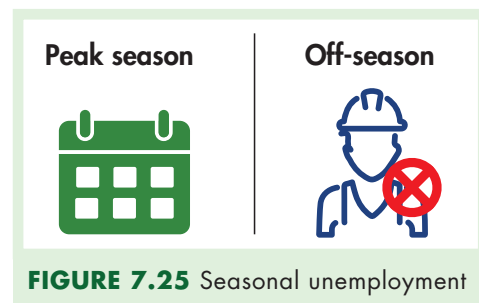


FIGURE 7.25 Seasonal unemployment

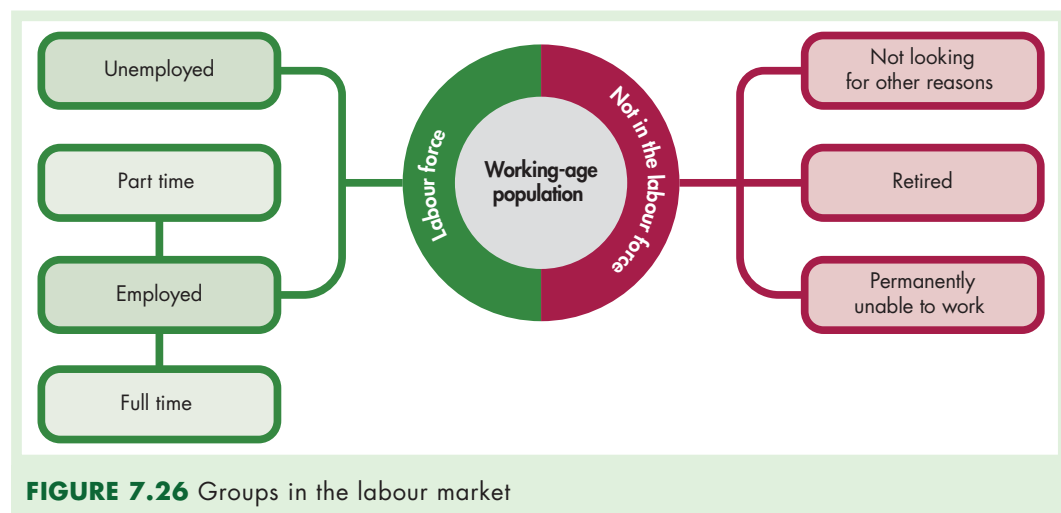


FIGURE 7.26 Groups in the labour market

Disguised unemployment

Disguised unemployment comes in two forms:

- **Discouraged workers** have given up looking for work because of the frustration of not finding a job. As these people are not actively seeking work, they are not classified as being unemployed. If there are many discouraged workers, the official unemployment rate underestimates the level of unemployment.
- **Underemployment**, sometimes described as **hidden unemployment**, has two characteristic types. The first is when people work in jobs that they do not want or in which they do not use their skills to full capacity; and the second is when people work fewer hours than they want or need. These people are considered to be employed, but bear in mind that, according to the ABS household survey, a person is 'employed' if they work one hour per week. In a sense, widespread underemployment can lead to an underestimation of the true unemployment rate; this is why those that are underemployed are often referred to as the 'hidden unemployed'. More regrettably for an economy, if not addressed, such a situation leads to **labour force underutilisation**. In this scenario, an economy is not utilising its labour force to its full capacity, which has implications for long-term economic growth.

Natural unemployment rate

The natural unemployment rate is the level of unemployment that exists when the economy is producing at the desired level of economic activity or potential GDP – that is, the highest level of real GDP that can be sustained over the long term – and where there is no cyclical unemployment. At this point, frictional and structural unemployment will always exist, even in a dynamic economy at equilibrium. Another way to think of potential GDP is to refer back to the production-possibilities curve at the start of this chapter (Figure 7.1). At all points along this curve, all resources – including labour – are fully employed and the economy is at potential GDP.

Factors that influence the natural unemployment rate

If an economy operates at a level of GDP less than its potential, a **deflationary gap** is said to occur. Actual unemployment will be higher than the natural rate and the economy is at less than full employment. The natural unemployment rate can change over time. Factors that influence structural and frictional unemployment, by definition, influence the natural unemployment rate, and are the target of government policies to reform the labour market. These include policies in relation to the skill composition of the labour force as regards changing labour demand; participation rates from different socioeconomic groups in the labour force; levels of unemployment payments that affect job search times; foreign trade patterns; and the composition of industry.

Eliminating unemployment is complex

If unemployment rates have been high for a considerable period of time, the natural unemployment rate may rise or follow the actual rate of unemployment. The longer the period of unemployment, the more difficult it is to overcome the structural and frictional barriers in the labour market. The contribution of each type of unemployment to the total figure of those unemployed is difficult to ascertain with any degree of certainty. This makes the elimination of unemployment a complex and difficult problem.

Non-accelerating inflation rate of unemployment

The **non-accelerating inflation rate of unemployment** (NAIRU) is the lowest unemployment rate that can be sustained without causing wages growth and inflation to rise. It is a concept that helps us gauge how much 'spare capacity' there is in the economy. The NAIRU cannot be observed directly. However, we can infer things about the NAIRU from other variables that can be observed, and that give clues about the level of spare capacity in the economy.

Spare capacity

The RBA explains:

There will be spare capacity in an economy when aggregate demand for goods and services is less than the economy's capacity to produce them. As spare capacity decreases, businesses have difficulty finding enough suitable workers. As a result, businesses may offer higher wages to attract and retain workers, and they may increase the prices of their products to cover their higher labour costs. More jobs and higher wages result in greater spending, further increasing aggregate demand and the scope for businesses to increase the prices of their products, ultimately leading to an increase in inflation. When spare capacity increases, the reverse is true (demand for workers falls; there is downward pressure on wages growth and prices; and inflation falls).

A key indicator of spare capacity in the economy is the difference between the NAIRU and the unemployment rate - sometimes known as the 'unemployment rate gap' (and also referred to as the 'unemployment gap'). Even though we cannot directly observe the NAIRU, if wages growth and inflation are decreasing, there is likely to be spare capacity in the economy; we can conclude that the unemployment rate is above the NAIRU. On the other hand, if wages growth and inflation are increasing, there is likely to be insufficient capacity in the economy; we can conclude that the unemployment rate is below the NAIRU. When there is no unemployment rate gap, the NAIRU is equal to the unemployment rate consistent with the economy operating at its full capacity.

The Non-Accelerating Inflation Rate of Unemployment (NAIRU), © Reserve Bank of Australia, CC BY 4.0

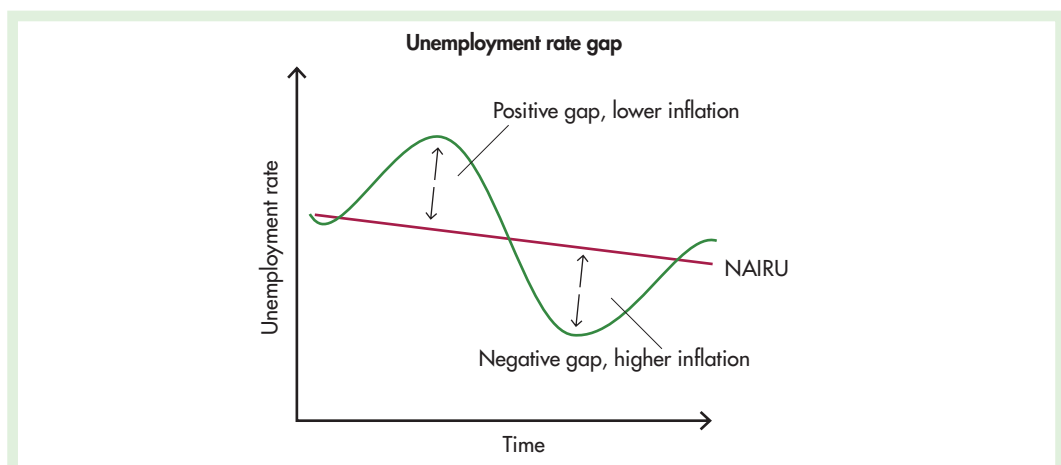


FIGURE 7.27 The unemployment rate gap is a key indicator of spare capacity in the economy.

Why is the NAIRU important?

The NAIRU helps economists and policy makers, like those at the RBA, determine how far the economy is from capacity. It is a guide for deciding when to adjust interest rates so as to keep prices stable and unemployment low.

- If unemployment is higher than the NAIRU, the economy is not at full employment, meaning wages and prices may not rise much. The RBA might lower interest rates to encourage spending and job creation.
- If unemployment is lower than the NAIRU, the economy is working at full speed (or overheating), which can push wages and prices up too fast. The RBA might raise interest rates to slow things down and keep inflation under control.

Thus the NAIRU helps to predict when the economy needs to keep things balanced.

7.4.3 The effect of unemployment

CONCEPTS



GDP gap: the difference between actual and potential GDP

Long-term unemployed: people unemployed for 52 weeks or more

Incidence of unemployment: the extent to which different groups of people experience unemployment

All forms of unemployment present problems for both the economy and individuals.

- There are the psychological effects on the unemployed and their families. Unemployed workers develop feelings of frustration, insecurity and failure that may have harmful effects on their families and on society as a whole. Statistics have shown that in periods of high unemployment – such as existed in Australia during the 1930s, the mid-1970s and the 1990s – the suicide rate and the crime rate rise.
- There may be a substantial loss of income and output because all resources are not being used to their full capacity. This means that a **GDP gap** exists. With all forms of unemployment, there is a loss resulting from unused labour; but in the case of structural and particularly cyclical unemployment, there will always be losses resulting from other factors of production not being fully used. This loss will not be borne completely by the unemployed. Some workers who still have jobs may suffer a cut in hours of work because overtime is no longer available. An associated problem is the cost to the government of severe and prolonged unemployment in the form of increased unemployment benefits and reduced taxation revenue.
- There is a loss of human capital; that is, the skills and experience embodied in the workforce. The longer people are unemployed, the more obsolete their skills and training become. To society, it means the loss of productive resources. A case example of this is the closure of motor vehicle manufacturing in Australia in 2017. The skills and experience of the workforce from Holden, Ford and Toyota are now lost to history. To the individual, it means a loss of career progression and higher income opportunities.

7.4.4 The incidence of unemployment

The costs of unemployment are not shared evenly across the total population. The **incidence of unemployment** varies from group to group. Unemployment rates vary according to age, gender and socioeconomic status. During a prolonged recession, the duration of unemployment becomes longer. The **long-term unemployed** are those people who have been unemployed for longer than 52 weeks. As the number of long-term unemployed rises, the costs of unemployment to the economy become more serious.

Restoring the economy to full employment without stimulating high inflation also becomes more difficult with long-term unemployment. The long-term unemployed become more difficult to re-employ. Being jobless for a long period means that people lose skills. After a continuing lack of success, the intensity with which they search for a job also diminishes. They lose contact with the job market and therefore have less information about upcoming jobs. Employers who see that a person has been unemployed for a long period of time conclude that this worker is in some way inferior to a person unemployed for only a short time. They are more likely to employ the latter.

For the economy, continuing high levels of unemployment and high proportions of long-term unemployment mean that a very large and growing part of the unemployed pool becomes less relevant to employers. Even though job vacancies may arise, employers will not consider the long-term unemployed for the jobs. This means wage-rise pressures may occur as employers begin to poach employed workers from competing firms and other comparable industries. An example of this occurred in Australia's mining boom of 2010–11, where mining companies actively recruited urban construction workers for their regional mining projects. While there was a significantly high number of job vacancies, the long-term unemployed did not have the necessary skill set to fill the vacant positions. The result was that workers from other sectors of the economy were enlisted, which caused the wages for particular occupations (electricians, engineers etc.) to rise dramatically due to the laws of demand and supply.

Long-term unemployment, therefore, becomes very persistent and very hard to reduce through policy and economic growth.



FIGURE 7.28 The costs of unemployment are not shared evenly across the population.

7.5 Stagflation

CONCEPTS



Phillips curve: a graph of the proposition that there is a trade-off between inflation and the unemployment rate

Stagflation: where inflation exists simultaneously with low levels of economic activity

Trimmed mean inflation rate: a measure of inflation that excludes a certain percentage of the most extreme price changes (both highest and lowest) from the consumer price index

KEY IDEA

The relationship between inflation and unemployment is not straightforward, and the challenge for governments is to vary economic policies to consider both the objectives of price stability and the maintenance of low levels of unemployment.

Prior to the 1970s, many economists accepted the idea of a trade-off between unemployment and inflation. The evidence seemed to show that the community had a choice of either unemployment or inflation, and a reduction in one was always at the cost of an increase in the other. In the years since 1970 and into the 1980s, this approach had to be abandoned to a great extent. High rates of unemployment and inflation occurred together. When the rate of growth of real GDP fell, there was no corresponding fall in the rate of inflation. This situation has become known as **stagflation**.



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Figure 7.30 allows us to compare the earlier situation of either high unemployment or high inflation with the stagflation period of the 1970s and 1980s and the situation in the early 2010s. The relationship between unemployment and inflation since 2010 highlights the trade-off between growth in jobs and rising prices, but we need to keep in mind that these are national figures and there can be significant differences in data as we move into individual states and regions.

FIGURE 7.30 Australian unemployment and inflation: selected years

Year	Inflation rate	Unemployment rate
1951–52	17.0	0.4
1955–56	5.0	0.5
1961–62	0.4	2.5
1976–77	14.0	4.5
1980–81	9.4	5.8
1983–84	5.8	9.2
1985–86	9.3	7.9
1991–92	1.7	10.2
1992–93	1.2	10.6
1994–95	3.9	8.4
1997–98	–0.2	7.9
1999–2000	2.8	6.6
2001–02	2.9	6.5
2003–04	2.0	5.6
2006–07	2.8	4.5
2007–08	3.7	4.2
2008–09	4.3	5.0
2009–10	3.1	5.5
2010–11	5.2	2.8
2012–13	5.8	2.2
2014–15	6.2	1.7
2016–17	5.7	2.1
2018–19	1.6	5.2
2020–21	3.8	5.1
2022–23	7.8	3.7

Source: RBA

7.5.1 The Phillips curve

Figure 7.31 tracks Australia's unemployment rate and **trimmed mean inflation rate** from 2001 to 2024. The trimmed mean of inflation removes a small percentage of the largest and smallest inflation changes over a given period of time before calculating the mean inflation. While examining the graph, one might observe the correlation between movements in unemployment and inflation.

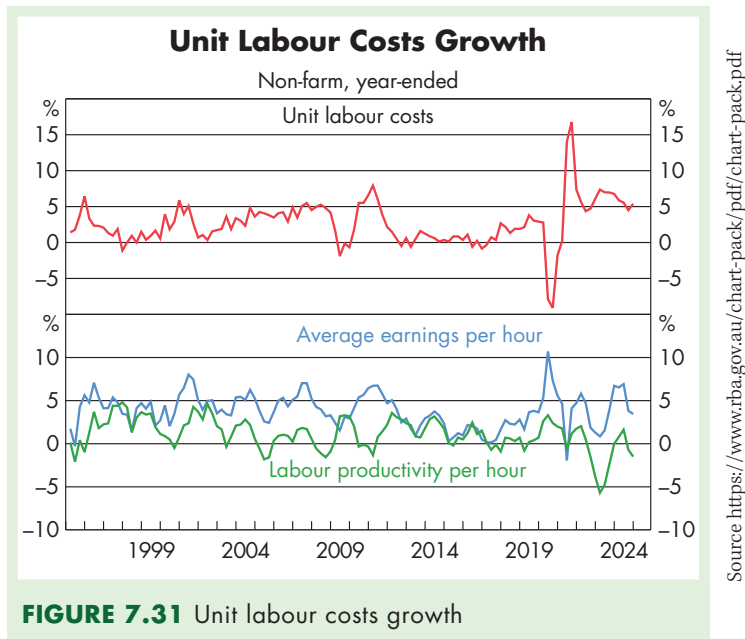


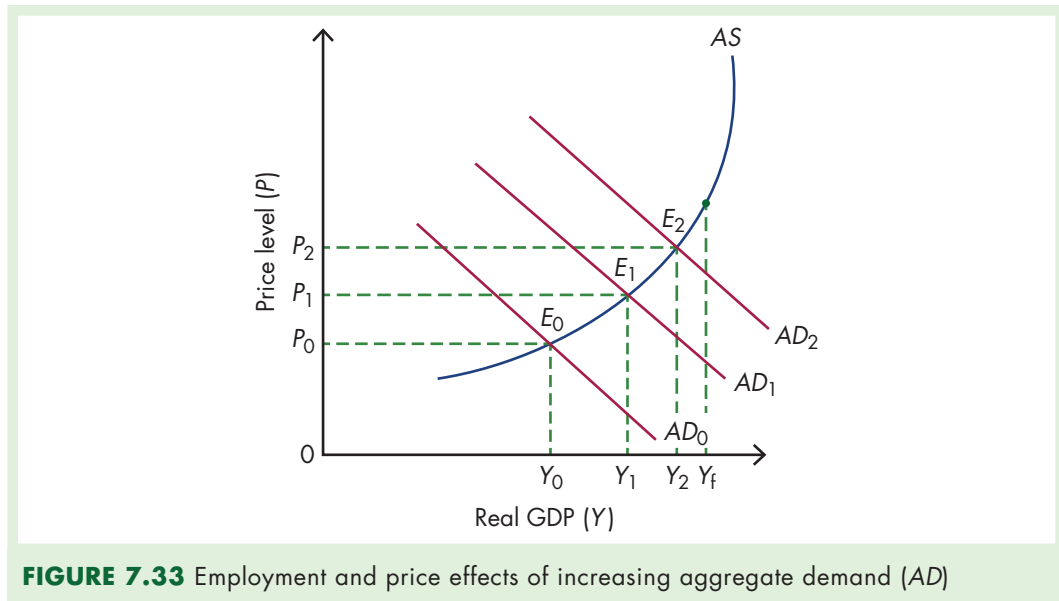
FIGURE 7.31 Unit labour costs growth

However, the relationship between inflation and unemployment is not necessarily so straightforward. If we examine Figure 7.33 on the following page, we find that increases in aggregate demand (AD) cause GDP to rise and unemployment to fall. As AD continues to rise and GDP approaches full employment, for every small improvement in GDP and decrease in unemployment, there is an increasing rise in the general price level. Further reductions in unemployment are achieved at the expense of increasing rises in the price level. The aggregate demand–aggregate supply analysis suggests that policy makers have a choice: they can lower unemployment by stimulating AD , as long as there is an acceptance of a higher rate of inflation.

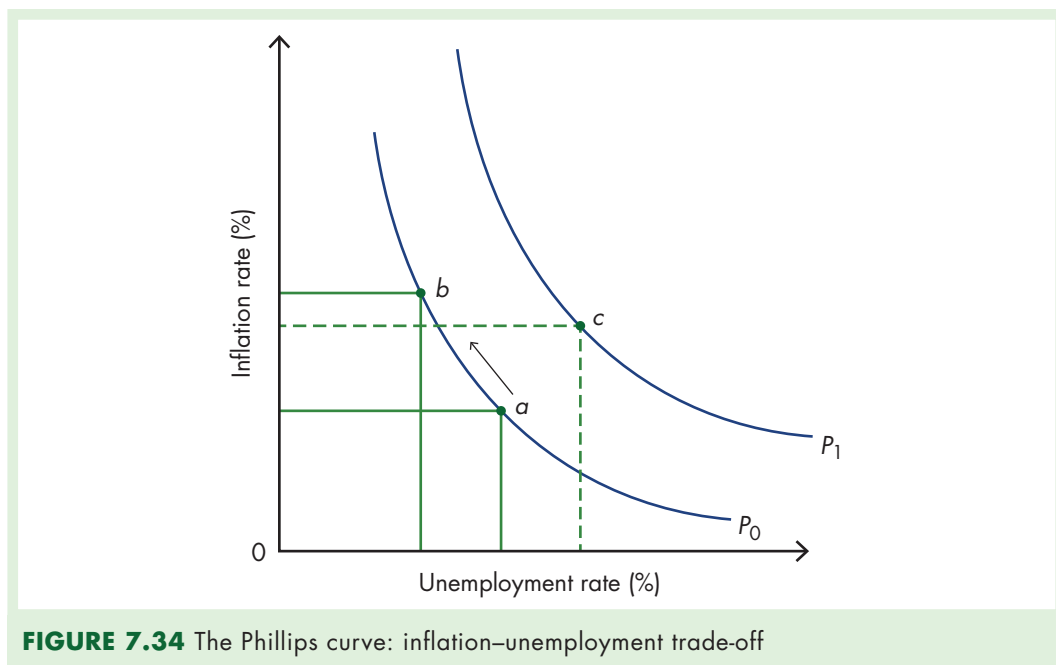


FIGURE 7.32 Policy makers can lower unemployment by stimulating AD , as long as there is an acceptance of a higher rate of inflation.

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The existence of a trade-off between inflation and unemployment can be depicted by the **Phillips curve**. In 1958, A.W. Phillips, a New Zealand economist, published an analysis of economic data that revealed an apparent stable, inverse relationship between the rate of inflation and the unemployment rate. If the Phillips curve relationship exists, as shown in Figure 7.34, then policy makers may choose a desired inflation–unemployment combination.



Demand-pull and cost-push theories of inflation and unemployment can be represented by the Phillips curve. An increasing AD , as shown in Figure 7.34, can be represented by a movement along the Phillips curve (from point a to point b).

However, stagflation – the combination of increasing inflation and increasing unemployment – challenges the notion of a trade-off. Stagflation can be represented by shifting the curve and moving from point *a* to point *c*. Cost-push influences – such as rising oil prices, aggressive trade union demands for higher wages, increased prices of inputs, or increased profit margins from firms with monopoly power – can cause the Phillips curve to shift from P_0 to P_1 .

Stagflation and shifting Phillips curves raise doubt as to whether a stable trade-off relationship actually exists between inflation and unemployment. There is, therefore, doubt as to whether policy makers can really choose the desired combination of inflation and unemployment, and then choose appropriate discretionary, aggregate demand management policies to achieve it. Some economists go even further, arguing that no trade-off exists in the long run. They conclude that any attempt to stimulate aggregate demand to reduce unemployment, in the belief that a Phillips curve relationship does exist, will only result in inflation, with no long-term reduction in unemployment. The key notion underlying their attack on the Phillips curve trade-off is inflationary expectations. This concept of a long-run Phillips curve will be explored in more detail in Chapter 8.



Colored Lights/Alamy Stock Photo

CHECK FOR UNDERSTANDING 7.7

- 1 **Explain** the links between population, participation rate and labour force.
- 2 Define the natural unemployment rate.
- 3 What are the main types of unemployment and what type/s of unemployment do you think exist in Australia at present?
- 4 What is meant by hidden unemployment? Why is it hidden?
- 5 What are the effects of unemployment on the community?
- 6 Why is long-term unemployment difficult to correct? **Recall** some effects of long-term unemployment.

7.6 The role of government in managing the economy

CONCEPTS



External policy: measures undertaken by governments to influence activity in the current account or the capital account

Fiscal policy: measures undertaken by governments in relation to raising revenue through taxation and determining the nature of government expenditure, aimed at influencing a nation's aggregate demand; can be discretionary or non-discretionary (automatic stabilisers)

Macroeconomic policy: measures undertaken by governments to influence

broad variables in the economy, such as consumption or investment

Microeconomic policy: measures undertaken by governments that focus on the operation of single decision-making units within the economy, such as the firm or the household

Monetary policy: measures implemented through the Reserve Bank of Australia to bring about changes in aggregate demand by influencing money supply and interest rates

KEY IDEA

Subject to changing economic, political and social conditions, the government utilises a range of policies that are implemented to achieve its economic objectives. The policies are designed to include the roles of resource allocation, distribution within markets and the stabilisation of the economy.

We have examined ways of judging the performance of an economy, the measures that are commonly used and a number of causes. This raises a key question: Should the government have a major or minor role with regard to the market in guiding the economy towards the achievement of these objectives? You may recall from *Economics for the Real World Units 1 & 2* that we studied the issues pertaining to the operation of markets, and concluded that government does indeed need to play an active role to ensure a fair and equitable society. Accordingly, to ensure that the free-enterprise system works efficiently and fairly, governments try to remedy what they perceive as failures in the market system and to safeguard and stabilise the whole system.

Governments aim to achieve this through the use of regulation as they endeavour to:

- ensure competition in markets in general
- deal with externalities or unintended consequences of market operations
- supervise and regulate labour markets
- supervise and regulate financial markets
- supervise and regulate economic relationships with overseas countries.

As economists, we need to recognise that the political regulatory functions of government will undoubtedly affect the government's economic roles in resource allocation, distribution and the stabilisation of the economy.

7.6.1 Allocation role

Governments can affect the way resources are used in the economy in several ways: through legislation, through taxation and expenditure, and through their own production of certain goods and services. The following sections give examples of this.

Legislation

Government legislation can:

- prevent monopolies and restrictive trade practices, and maintain competition
- create national parks and restrict the commercial use of ecologically sensitive areas
- regulate foreign investment and ownership
- license and regulate entry into certain trades and professions.

Taxation and expenditure

Governments can provide:

- tax incentives and disincentives to encourage or discourage business investment, innovation and employment
- penalty taxes on the consumption of certain goods, such as alcohol and cigarettes
- subsidies to business for research and development, employee training or relocating
- expenditure on improving transport systems, participating in joint ventures in mining projects, and providing advisory services to farmers.

Production of public sector goods

Public goods

Public goods are those goods and services that, if left to private enterprise and the market sector, would not be provided at all. Most people agree that these goods are beneficial – for example, flood protection, disease eradication, national defence and wilderness conservation – but no one is willing to pay for them. Why? Once the good or service is provided for one person, everyone else benefits. No one can easily be excluded from sharing the benefits. So why pay if you can get it anyway? The problem is that everyone thinks they can have a free ride.

Merit goods

Merit goods are those goods and services considered to be of benefit to society and provided by government through the budget, even though some would argue that they are not exactly public goods; for example, free education, preventative medicine, symphony orchestras, research laboratories, sewage treatment and employment agencies.

Public enterprises

Public enterprises are owned by government but have the appearance of a private business; for example, railways, public utilities, international airlines, financial institutions, business advisory agencies, telecommunications and marketing boards. They charge customers for their services, raise revenue from sales and compete with private firms. One major difference between a public and a private firm is that public enterprises are driven by goals other than profit maximisation.

7.6.2 Distribution role

The market system will tend to distribute goods and services to those who can pay for them. This means that the poorer sections of the community – the aged, low-income earners, the unemployed, single parents and the disabled – will be severely disadvantaged. Without the ability to pay, they are unable to express their preferences about the way the nation's resources are used, or access resources to satisfy basic needs. It is the task of the government to alleviate the hardships of the poor and redistribute income in a more equitable manner.

There are two broad focuses of government action to raise the standard of living of the poor. The first is on raising capacities to earn more income; this could involve government subsidies for education and training, start-up capital grants for small businesses, assistance with job

search and relocation, and anti-discrimination legislation. The second is on the redistribution of income; this is accomplished in the main by levying proportionally higher taxes on high-income earners and transferring the income by payments to those in need; for example, through age and invalid pensions, unemployment benefits and student allowances. Various forms of government intervention in the marketplace can also affect income distribution, such as minimum wage legislation, farm subsidies, tariffs on imports and price controls.

7.6.3 Stabilisation role

Market economies tend to experience variations in the levels of economic activity, unemployment and prices. Governments have taken on the responsibility of moderating these fluctuations by actively intervening in the market economy. As a consequence of this, there are a number of policy tools that are used to influence a nation's economic objectives.

The main forms of active **macroeconomic policy** intervention include:

- **fiscal policy:** the use of changes in government expenditures and taxes to try to influence the aggregate demand for, and aggregate supply of, goods and services
- **monetary policy:** control over the money supply and interest rates to influence the aggregate demand for goods and services
- **external policy:** changes – for example, to tariffs and exchange rates – intended to influence international payments and receipts.
- **microeconomic policy:** changes – for example, to labour productivity and technological innovation – intended to influence the competitiveness and efficiency of the production sector, thereby increasing aggregate supply.

These policy approaches will be explored in more depth in Chapters 9, 10 and 11.

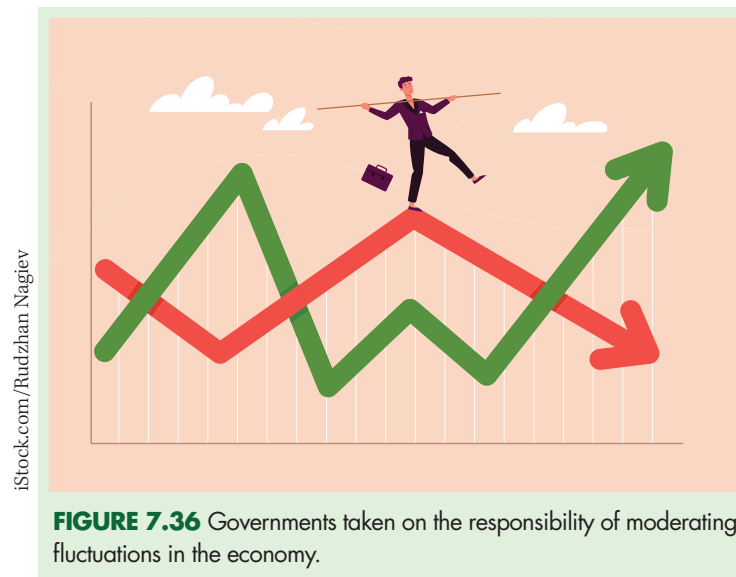


FIGURE 7.36 Governments taken on the responsibility of moderating fluctuations in the economy.

CHECK FOR UNDERSTANDING 7.8

- 1 **Recall** the markets that governments significantly intervene in and explain the reasons why.
- 2 How do governments try to ensure that markets are competitive?
- 3 What policy measures exist for government to intervene in the economy?
- 4 **Distinguish** between expansionary and contractionary fiscal policy.
- 5 **Describe** how the government can use fiscal policy when there is a deflationary and inflationary gap. Draw graphs to support your response.

7.7 Fiscal policy

CONCEPTS



Automatic stabilisers: those elements of non-discretionary fiscal policy that operate without the need for government action; that is, they automatically counterbalance changes in the level of economic activity

Bonds: fixed-income securities that represent a loan made by an investor to a borrower (typically a government or corporation); the issuer agrees to pay periodic interest (coupon payments) and return the principal amount at maturity

Budget: a statement of the government's estimated revenue and expenditure for the coming financial year

Budget deficit: a negative budget balance; when receipts fall short of expenditures

Budget surplus: a positive budget balance; when receipts exceed expenditures

Crowding out: where increased government borrowing leads to higher interest rates, which can reduce private sector investment; this happens because when the government borrows more, it competes with businesses and individuals for available funds, making borrowing more expensive for them; as a result, private investment may decline, potentially slowing economic growth

Cyclical components of fiscal policy: elements of fiscal policy that are caused by changes in the level of economic activity that impact the level of national income; these are non-discretionary elements of fiscal policy

Debt financing: the process of raising funds for business or government activities by borrowing, typically through issuing bonds, taking loans or other credit instruments

Discretionary fiscal policy: deliberate changes to fiscal policy instruments to influence the level of aggregate demand; also referred to as 'structural components of the budget'

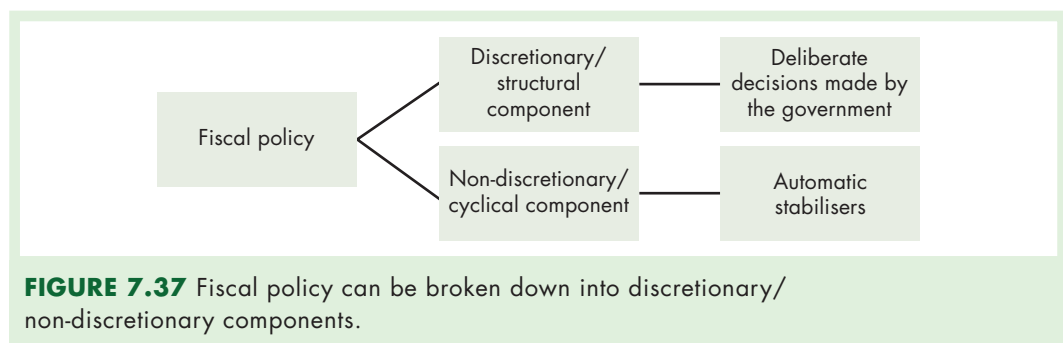
Fiscal policy stances: the overall effect of a budget on the level of economic activity in an economy

Monetary financing: the direct funding of government spending by the central bank, typically through money creation rather than borrowing from the public or issuing bonds

KEY IDEA

Well-targeted discretionary use of fiscal policy, complemented by automatic stabilisers, can influence the level of demand in the Australian economy, although the levels of consumption expenditure and private sector investment remain the key determinants of the level of aggregate demand.

As noted in Section 7.6, fiscal policy is measures undertaken by government through its annual **budget** (taxation income and expenditure), aimed at influencing a nation's aggregate demand. Fiscal policy should be considered in terms of deliberate government and non-deliberate cyclical measures: see Figure 7.37.



In an open market economy such as Australia's, the government does not have control of some of the key determinants of the level of economic activity. Global economic conditions have a significant impact on the level of demand for Australian exports and the availability and prices of imports. The consumption decisions of individuals are the key determinant of the level of demand in the Australian economy, accounting for 60–65 per cent of aggregate demand. Government policy actions have important but limited influence on these decisions. The level of business investment is based on decisions that focus on costs, anticipated risks, and projections of sales revenue and profits, but government policies can influence the economic climate in which these decisions are taken. Private sector investment generally accounts for 8–14 per cent of aggregate demand. Economic theory suggests that, despite its limitations, fiscal policy can have a significant effect on the level of macroeconomic activity, especially in stimulating it.

7.7.1 Budget outcomes

There are three possible outcomes to a budget: a deficit, a balanced budget or a surplus. These may be referred to as the 'budget outcome' or 'bottom line'.

Budget deficits occur when a government spends more than it receives in revenue during that financial year. Deficits must be funded by government borrowing or the sale of government assets. Assets such as Commonwealth land, real estate or government business enterprises can be sold to finance a deficit. The sale of the Commonwealth Bank, Qantas and Telstra are examples. The three main sources from which governments can borrow funds are explored at 7.7.5.

Budget surpluses are created when revenue from taxes, charges and the income from government business enterprises exceeds government expenditure. These surpluses can be used to pay down existing government debt, or carried forward to fund stimulus spending in future budgets, as a response to downturns in the economic cycle. Many governments establish sovereign wealth funds, such as Australia's Future Fund. Budgets alter the level and composition of a nation's public assets and debts.

In Figure 7.38:

- The income level Y_b represents a balanced budget ($G = T$).
- The section shaded pink shows a budget deficit ($G > T$).
- The section shaded green shows a budget surplus ($G < T$).

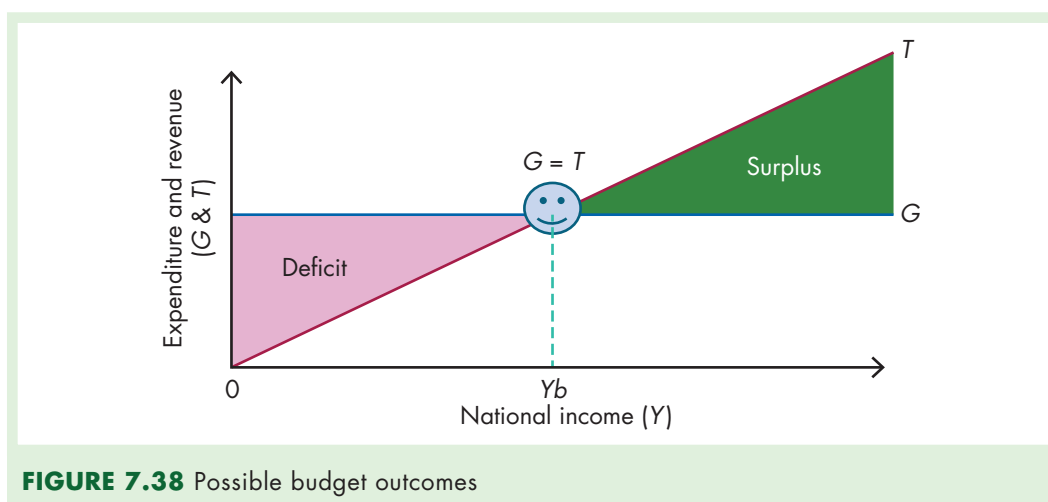


FIGURE 7.38 Possible budget outcomes

While households may seek to balance their budgets, governments do not generally aim for fiscal balance in the short run. Instead, government finances are managed to promote economic objectives, respond to fluctuations in the economic cycle and achieve fiscal balance, on average, over the course of the economic cycle.

Fiscal policy may be automatic or the result of deliberate government policy decisions. The existence of a budget deficit does not necessarily imply that the government is conducting an expansionary fiscal policy. Similarly, the existence of a budget surplus does not necessarily imply a contractionary **fiscal policy stance**. The observed budget balance is the result of two factors:

- the deliberate action of government to change tax rates and/or expenditures in the budget (a budget structural change)
- the state of the economy (a cyclical change).

7.7.2 Discretionary fiscal policy

The government can take **discretionary fiscal policy** action to increase or decrease aggregate demand. When faced with the problem of unacceptable levels of unemployment and a deflationary gap, the government can stimulate aggregate demand by increasing government expenditure and/or reducing tax receipts. This may result in a deficit budget (this is not certain, as explained in Chapter 9). To counter an inflationary gap, the opposite action could be taken to reduce aggregate demand, possibly resulting in a budgetary surplus.

7.7.3 Cyclical or non-discretionary fiscal policy

The budget outcome can also be influenced by changes in the economic cycle automatically triggering non-discretionary changes in fiscal policy. Economists call these **automatic stabilisers**. They are also referred to as **cyclical components of fiscal policy** because they vary according to changes in the economic cycle.

Automatic stabilisers are those elements of fiscal policy that automatically come into operation to counteract the problems caused by inflationary and deflationary gaps. No new government action is needed. They swing into action as real GDP changes, causing changes to aggregate demand to offset the employment and price effects of the gaps. Important automatic stabilisers are income tax, and unemployment and welfare benefits.

If the economy is experiencing an inflationary gap, the Australian system of progressive income tax will act to reduce it. As private sector income rises, an increasing proportion of income will be taken by the government in the form of taxation. This means that the private sector will lose some of the increased spending power that would otherwise be associated with increasing income. Aggregate demand will therefore increase at a slower rate than income and so constrain demand pressure.

The automatic stabilising process also works in reverse. As real GDP declines due to a deflationary gap, government tax collections decline. This helps offset the decline in private sector incomes and lessens the decrease in aggregate demand.

Figure 7.39 illustrates how expansionary fiscal policy can counter a downturn in the economic cycle that creates a deflationary gap. It illustrates an economy in which the full employment level of GDP is \$50 000 million, but in which the equilibrium level of production has fallen to \$40 000 million, due to a downturn in the economic cycle. Production is less than the full employment level, so the economy will not be operating to full capacity and the unemployment rate will be higher than the natural rate. A deflationary gap of \$10 000 million has developed.

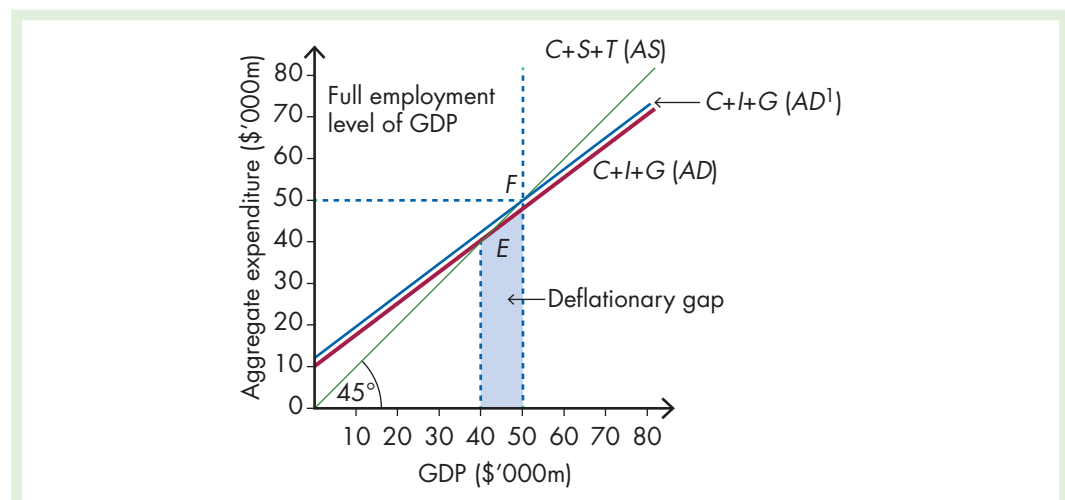


FIGURE 7.39 Fiscal policy to counter a deflationary gap

To raise the equilibrium level of income (GDP) to the full employment level, and remove the deflationary gap, there will need to be an increase in aggregate spending. The amount of increase in spending required will depend on the size of the multiplier. For example, if the multiplier were 5, then \$2000 million of extra expenditure would be required. This could come from an increase in autonomous consumption or investment, or from government action.

Fiscal policy could be adjusted to increase government expenditure by \$2000 million, creating a boost of \$10 000 million in aggregate expenditure and GDP, as illustrated by the AD^1 curve. This closes the deflationary gap and returns the economy to full employment. This illustrates expansionary fiscal policy.

Figure 7.40 shows how contractionary fiscal policy can counter an upturn in the economic cycle that creates an inflationary gap. It illustrates an economy in which the full employment level of GDP is \$50 000 million, but in which the equilibrium level of production has risen to \$60 000 million, due to an increase in aggregate demand/expenditure. Production is higher than the full employment level, unemployment is already down to the natural rate, and producers are having difficulty getting the extra workers and raw materials they need. Production bottlenecks and shortages will occur. Prices will begin to rise. The result will be an increase in the money value of GDP, but little or no increase in real GDP. Inflation will be experienced.

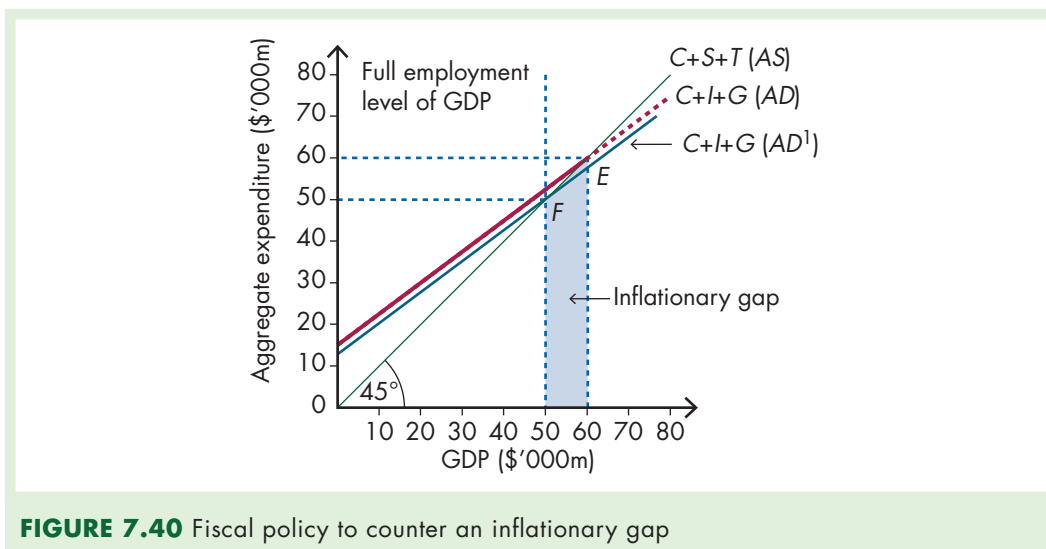


FIGURE 7.40 Fiscal policy to counter an inflationary gap

Counter-cyclical fiscal policy to combat an inflationary gap would involve delivery of a contractionary policy stance to deliver a budgetary surplus. This would reduce aggregate spending and help reduce the equilibrium level of income (GDP) to the full employment level, removing the inflationary gap. The size of the multiplier would need to be considered in deciding the appropriate size of the surplus.

Point E in Figure 7.40 is an impossible situation to achieve in real terms, with all resources already being used. Attempts to reach this level will only result in inflationary pressures. In an ideal world, the government would note the movement of the economy towards this situation and apply counter-cyclical macroeconomic policy to slow the growth in aggregate demand before it exceeded the full employment level (point F). The application of such policy measures involves time lags and limitations linked to transmission mechanisms that will be explored later in this textbook (see Chapter 10). In recent years, the Australian Government has preferred to use monetary policy over fiscal policy for addressing the emergence of inflationary gaps.

7.7.4 Structural deficits

A structural deficit occurs when a government's budget deficit persists when the economy is operating at full capacity (that is, at its potential GDP). This means that even in good economic times, the government is spending more than it earns in revenue (mainly from taxes).

A structural deficit is different from a cyclical deficit, which happens due to economic downturns when government revenue falls and spending (for example, on unemployment benefits) rises.

Key features of a structural deficit

A structural deficit:

- is not caused by short-term economic fluctuations (for example, recessions or booms)
- results from long-term imbalances between government spending and revenue
- can be due to policy choices (for example, permanent tax cuts, ongoing high welfare spending or inefficient tax collection).

A structural deficit affects key economic objectives, such as:

- sustainable economic growth – persistent deficits may lead to higher national debt, which can slow long-term growth
- full employment – if the deficit funds productive investment (for example, infrastructure, education), it can support jobs
- price stability – large, ongoing deficits can cause inflationary pressure if they are financed by excessive money printing
- balanced public finances – a high structural deficit may force future governments to raise taxes or cut spending.

7.7.5 Deficit finance and public debt

Expansionary fiscal policy often results in a budget deficit. As a budget deficit means that government revenues are less than government expenditures, the government must obtain additional funds to finance the difference.

There are three sources or methods of deficit finance available to the government:

- borrow from the central bank (the RBA)
- borrow from the domestic private sector (Australian households and firms)
- borrow from overseas (investors or institutions).

Borrowing from the RBA to finance a deficit – referred to as **monetary financing** – amounts to the government ‘printing more money’ and increases the money supply, risking inflationary pressures. Monetary financing has not been used since the Australian dollar was ‘floated’ in 1983 as part of a deregulation of the Australian financial sector.

The second way of financing a budget deficit is through bond sales to the general public, called **debt financing**. Australian governments have historically relied on the Australian private sector as their main source of borrowing. This involves selling interest-bearing government (Treasury) **bonds**, and creates government debt. Debt financing is contingent on an adequate pool of national savings being available and domestic interest rates being competitive. Both situations are more likely during a downturn in the economic cycle, which is the phase where deficit budgets are most likely.

To sell bonds, the government must be willing to offer a competitive interest rate to attract people and institutions to buy them (that is, lend money to the government). Otherwise, individual and corporate lenders may prefer to buy the debentures and shares of businesses (that is, lend money to the business sector). When buying the bonds, people and institutions withdraw money from the financial system. When the government spends the borrowed money, the money is returned to the financial system. Unlike borrowings from the RBA, borrowing from the general public to finance a budget deficit does not lead to an increase in

the money supply. However, the public (government sector) debt rises and interest payment obligations, which are part of budget expenditures, also rise.

When governments engage in debt financing, there is always the possibility of **crowding out**. In its desire to sell bonds, the public sector competes with the private sector by raising loans in the financial markets. This competition can force up interest rates. As interest rates rise, the level of private investment expenditure falls. This situation, therefore, can be described as budget deficit expenditure crowding out private investment expenditure. Government expenditure and private investment are both components of aggregate expenditure:

$$C + I + G + (X - M)$$

where:

C = consumption

I = investment

G = government expenditure

X = export receipts

M = import payments.

If crowding out occurs, an increase in government expenditure (G) designed to stimulate the economy, is offset by a decrease in private investment (I). In terms of Figure 7.41, expansionary fiscal policy through increased G is intended to stimulate aggregate demand from AD_0 to AD_1 . Private investment is crowded out by deficit financing, so aggregate demand shifts to only AD_2 . Crowding out reduces the effectiveness of expansionary fiscal policy.

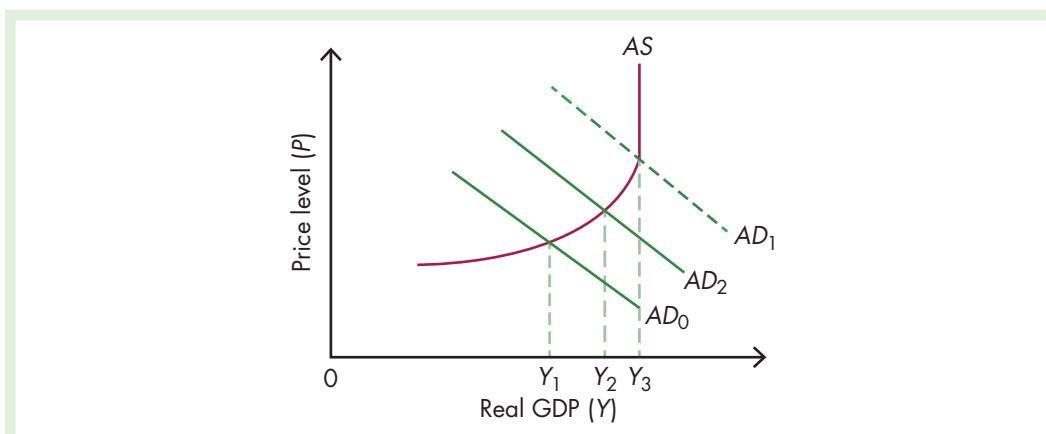


FIGURE 7.41 The crowding-out effect of deficit financing

Borrowing from overseas can give access to cheaper funds than are available in Australia and stimulates aggregate demand, as it represents an injection of foreign savings into the local circular flow of income. It has the disadvantage of creating sovereign debt and an outflow of funds to meet interest payments. This subjects the Australian economy to the risk of unfavourable currency fluctuations, and at high levels of debt can threaten Australia's credit rating. Since the late 1980s, this source of deficit financing has not been favoured. Successive governments have sought to reduce the Commonwealth's foreign debt burden and the impact on the current account deficit of servicing this debt. The level of foreign debt has become a key political and economic issue in recent years.

CHECK FOR UNDERSTANDING 7.9

- 1** What are the two main considerations for governments when making fiscal policy decisions?
- 2** Contrast each of the following pairs of terms:
 - a** budgetary surplus and budgetary deficit
 - b** discretionary and cyclical fiscal policy actions.
- 3** Why is fiscal policy described as:
 - a** macroeconomic policy?
 - b** counter-cyclical?
- 4** Name two key automatic stabilisers and **explain** how one of these works in an economy experiencing a downturn in economic activity.
- 5** Prescribe an appropriate fiscal stance for an economy that is developing an inflationary gap.
- 6** Name the three sources of deficit finance and state the main disadvantage of each.

R 7.1 Terminology

Select the correct term from the list below that describes each statement.

A Automatic stabilisers	F Consumer price index (CPI)
B Investment	G Internal stability
C Frictional unemployment	H Cyclical components of fiscal policy
D Cost-push inflation	I Structural unemployment
E Balance of payments	J Demand-pull inflation
- The summary of a nation's payments to, and receipts from, the rest of the world over a year
 - Those elements of non-discretionary fiscal policy that operate without the need for government action
 - Unemployment that occurs when economic needs change, causing jobs themselves to change or disappear
 - The phase of the trade cycle where the general level of economic activity is below the economy's potential
 - A measure of the average change in the price of a selected range (basket) of consumer goods and services
 - Inflation that results from excessive demand
 - A state of the economy in which there is full employment and acceptable levels of inflation
 - Inflation that results from rising production costs
 - Elements of fiscal policy that are caused by changes in the level of economic activity that impact the level of national income
 - Unemployment related to time lags involved in the transition between jobs

R 7.2 Multiple-choice questions

Select the correct response to each of the following:

- If the CPI rises from 120 to 132 over a year, what is the inflation rate?
 - \$132
 - 12 per cent
 - 10 per cent
 - 32 per cent
- The CPI can be used to measure changes in the cost of living because it:
 - measures changes in the general price level.
 - takes account of the distribution of income.
 - exactly takes into account everyone's purchases.
 - expresses changes in prices in dollar terms.
- A form of unemployment associated with a decline in real GDP is:
 - cyclical.
 - disguised.
 - structural.
 - seasonal.

Review of Chapter 7

- 4 Which of the following is *not* a cost of unemployment?
 - A a loss of potential GDP
 - B an increase in the duration of unemployment
 - C a possible trade-off of lower inflation
 - D an increase in the opportunity cost of attending school
- 5 Foreign capital inflow has the same effect on the circular flow as:
 - A an increase in domestic savings.
 - B an increase in consumer spending on imports.
 - C an increase in investment by firms.
 - D a decrease in government spending.
- 6 Under a floating exchange rate system, a fall in the Australian interest rates relative to those of the rest of the world will lead to:
 - A a decrease in the domestic money supply.
 - B an increase in the domestic money supply.
 - C an appreciation of the Australian dollar.
 - D a depreciation of the Australian dollar.
- 7 An example of structural unemployment is:
 - A when a fruit picker is made redundant at the end of a harvest.
 - B when motor vehicle manufacturing closed its doors in Australia.
 - C when a university student resigns her part-time job in a cafe.
 - D when a 67-year-old public servant retires.
- 8 Which of the following is *not* a reason why price stability is an important objective?
 - A It maintains the value of money.
 - B It protects the value of savings.
 - C It boosts business and consumer confidence.
 - D It keeps nominal and real interest rates as high as possible.
- 9 A problem for policy makers portrayed by the Phillips curve is:
 - A stagflation.
 - B the fact that policies to reduce unemployment may cause inflation.
 - C the deflationary gap.
 - D the fact that expansionary fiscal policy may crowd out business investment.
- 10 If a retired couple receive a pension of \$50 000 per year from a superannuation fund and the rate of inflation is 3 per cent:
 - A their real income is rising.
 - B their real income is falling.
 - C their real income remains unchanged.
 - D none of the above.
- 11 Which of the following is *not* an example of a conflict in economic objectives:
 - A low inflation versus high unemployment
 - B increased use of capital goods and technological innovation versus high employment
 - C trade barriers to protect jobs versus slower economic growth
 - D foreign investment versus loss of independence

- 12 If a government had as a high priority the aim of distributing income more equitably, then the two most appropriate methods would be:
- A regressive taxation and an increase in unemployment benefits.
 - B regressive income taxation and provision of cash social security benefits.
 - C progressive income taxation and a decrease in social security benefits.
 - D an increase in the rates of progressive taxation at higher income levels and provision for an increase in the aged pension rate.
- 13 Which of the following courses of government action would be most likely to cause a fall in aggregate demand?
- A a reduction of income tax, tax concessions for investment, and export assistance
 - B a reduction in goods and services tax, an increase in wages of public servants and a reduction in tariffs
 - C an increase in company tax, an increase in tariffs and a reduction in tax concessions for investment
 - D an increase in export assistance, a reduction in tariffs and an increase in government projects

R 7.3 Activities

Calculating a price index

Use the table in Figure 7.42 to carry out the following tasks.

- 1 **Calculate** the tuckshop price index (TPI) for Years 2 and 3. Use Year 1 as your base year.
- 2 **Calculate** the percentage change in TPI from year to year.
- 3 Show how the TPI changes as consumer buying patterns change; that is, the weights are changed.

FIGURE 7.42 Tuckshop price index

Goods	Weight	Year 1		Year 2		Year 3	
		Price	Expenditure	Price	Expenditure	Price	Expenditure
		\$	\$	\$	\$	\$	\$
Soft drink	20	2.40	48.00	2.60	52.00	2.70	
Sausage roll	5	2.20	11.00	2.40	12.00	2.50	
Hot dog	2	2.00	4.00	2.30	4.60	2.80	
Potato chips	15	2.20	33.00	2.40	36.00	2.50	
Total cost			94.00		104.60		
Index no.			100.00				

Calculating the rate of unemployment

Recalling the following formulas, complete the table in Figure 7.43 and then answer the question that follows.

Labour force = Total number of employed + Total number of unemployed

Unemployment rate = $(\text{Labour force} \div \text{Total unemployed}) \times 100\%$

Participation rate = The proportion of the nation's population that has joined the labour force

FIGURE 7.43 Employment figures for Country A and Country B

	Country A Year 1	Country A Year 2	Country B Year 1	Country B Year 2
Total employed (million)	22.8	23.1	330.0	332.0
Total unemployed (million)	1.5	1.3	16.5	17.8
Labour force (million)				
Unemployment rate %				
Participation rate %	64.2	63.9	67.8	68.4
Real GDP growth rate %	4.1	4.0	5.3	5.7

Taking into account each nation's change in participation rate and growth in real GDP, **identify** which country has experienced the strongest rate of employment growth from Year 1 to Year 2. In your response, **explain** the relationship between the participation rate, growing productivity and the unemployment rate.

Calculating growth using the circular flow of income model

The data in Figure 7.44 is known about Richland's economy.

FIGURE 7.44 Richland's economy

	\$m
Total private consumption	3000
Private investment expenditure	750
Private savings	600
Government consumption expenditure	250
Government investment expenditure	500
Taxation	800
Exports	500
Imports	600

- 1 What is the net contribution to the circular flow from the foreign sector?
- 2 What is the overall contribution of the private sector to the circular flow?
- 3 What is the overall contribution of the government's budget to the circular flow?
- 4 What effect does the budget position have on the circular flow?
- 5 What is the aggregate demand in the economy?

R 7.4 Investigation – research topics

- 1 Which is worse, unemployment or inflation? **Evaluate** the question from different perspectives (for example, as an employer, an investor, a pensioner and an unemployed person).
- 2 What are the major economic issues currently facing the Australian economy? Are there policies in place to deal with them? How effective have these policies been? What criteria would you use to assess them?
- 3 What are the costs and benefits of economic growth? Examine and **evaluate** this issue from at least three different perspectives (for example, as a retired person relying on their superannuation returns, a tourism operator on the Great Barrier Reef, and a local manufacturer competing with increased foreign competition).
- 4 How successful has the current federal government been in achieving each of the economic objectives set out in this chapter? **Evaluate** the outcomes of more recent government policy for the different sectors and for the economy as a whole.
- 5 What difficulties do governments face in simultaneously trying to pursue objectives of economic growth, full employment and price stability? How successfully have current policies addressed these difficulties?
- 6 Research the economics response to the COVID-19 pandemic which started in 2020. What policies did the Australian Government pursue? How effective were these policies in coping with the pandemic?

Economics Data worksheets:

7.1 Economics Data

 Nelson MindTap

To access resources above, visit
cengage.com.au/nelsonmindtap



Budget



Photo: iStockphoto/Alamy Stock Photos

8

Economic indicators and past budget stances

The Australian Government makes decisions on the annual federal budget.

Focus questions and inquiries

- How can we assess the position of the Australian economy on the economic cycle at previous points in time?
- What are the relationships between the economic cycle and economic objectives?
- What role do automatic stabilisers and discretionary spending have in influencing aggregate demand and stabilising the economic cycle?
- Why have the fiscal policy responses adopted in recent Commonwealth budgets been chosen and how effective have they been in achieving the planned outcomes?
- How effective have recent fiscal policy responses been in achieving the government's economic objectives?

This chapter will examine:

- economic indicators of economic performance
- the economic cycle and economic objectives, using previous points in time
- recent Australian federal budget outcomes, including cyclical and structural causes and effects of expansionary and contractionary fiscal policy stances
- the Australian Government's economic management and achievement of its objectives
- the distinction between discretionary and non-discretionary spending
- automatic stabilisers of the level of macroeconomic activity
- the difference between contractionary and expansionary fiscal policy stances.

8.1 Economic indicators

CONCEPTS



Coincident indicator: an indicator that provides information regarding changes in the economy at the same time as they occur in the economic cycle

Composite index indicator: an index constructed from combining a set of leading, coincident and lagging indicators

Lagging indicator: an indicator that provides information regarding changes in the economy after they occur in the economic cycle

Leading indicator: an indicator that provides information regarding changes in the economy before they occur in the economic cycle

KEY IDEA

Economists use a range of key economic indicators to identify the relevant phase of the economic cycle: leading indicators, coincident indicators and lagging indicators. An index constructed from all three is known as a composite index indicator. By examining economic indicators, we can obtain a comprehensive understanding of how an economy is performing, both over time and in relation to other nations.

8.1.1 Leading indicators

Leading indicators provide economists with information regarding changes in general economic activity in advance of it actually occurring in the economic cycle. For example, approvals to build houses are given months in advance of the actual purchase of materials and construction process. With this data, economists can forecast increases or decreases in demand in the construction industry, which encompasses a large number of subsidiary industries such as steel, textiles, timber, electrical and white goods. Leading indicators are not always reliable and need to be confirmed by other indicators.

8.1.2 Coincident indicators

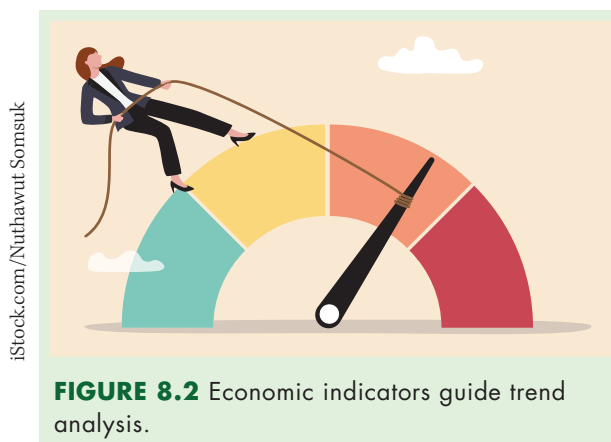
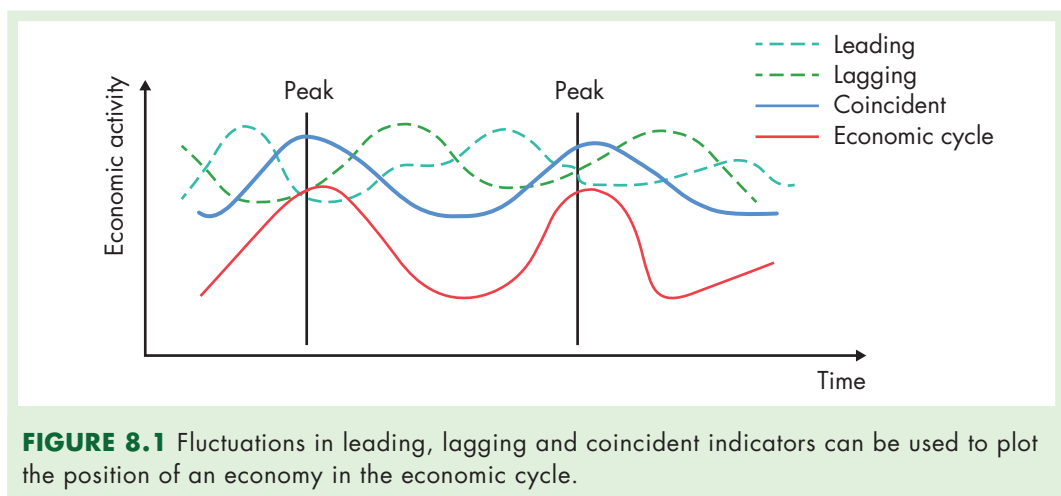
Coincident indicators provide economists with data regarding changes in economic activity that are actually occurring at the time. For example, increases or decreases in retail sales by consumers provide information on current levels of consumer confidence and demand. As a result of changes in consumer demand, retail outlets will change their orders from factories, and economic activity will adjust to the demand. Changes in coincident indicators can be used to confirm changes in leading indicators. Other examples include new car registrations, factory production and job vacancies.

8.1.3 Lagging indicators

Lagging indicators provide further confirmation of trends shown by the other indicators. Information from lagging indicators only becomes available to economists after changes in economic activity in the economic cycle. For example, there is usually a lag between an increase in consumer demand and the decision by the production sector to employ more staff. The initial reaction to an increase in demand would be to require current staff to work more overtime or to employ temporary staff until the increase in demand is confirmed to be a long-lasting trend and not just a short-term upturn. Other examples include CPI, unemployment and investment expenditure.

8.1.4 Composite index indicator

To accurately determine the economy's phase in the economic cycle, economists use a **composite index indicator** that combines leading, coincident and lagging indicators. As shown in Figure 8.1, leading indicators tend to peak and trough in advance of the economic cycle. Coincident indicators peak and trough at about the same time, and lagging indicators follow the economic cycle.



Even with all this data, economists often have difficulty reaching a consensus regarding the location of the economy on the economic cycle. Frequently, this is because the indicators do not necessarily show a consistent trend, and sometimes factors external to the economy lead to changes in consumer and business confidence; for example, the announcement of an election or a change in the currency exchange rate.

ECONOMICS IN ACTION



Forecasting

Use the range of economic indicators for a hypothetical economy provided in Figure 8.3 to complete the following tasks:

- 1 Forecast the location of the hypothetical economy on the economic cycle for the third quarter. Remember to use leading, coincident and lagging indicators.
- 2 Write a description of the forecast state of the economy in the next quarter (Quarter 5).



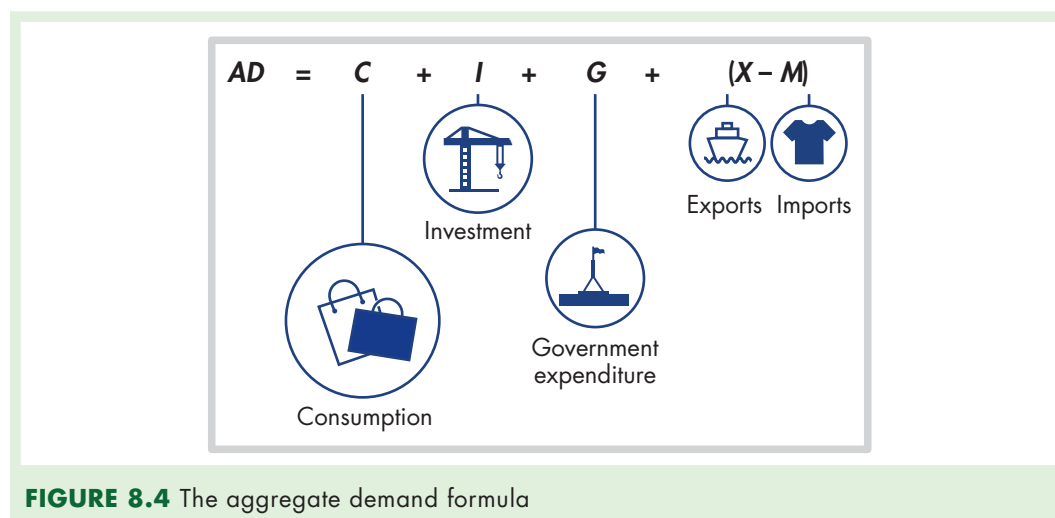
Worksheet
8.1 Forecasting

FIGURE 8.3 Economic indicators for a hypothetical economy

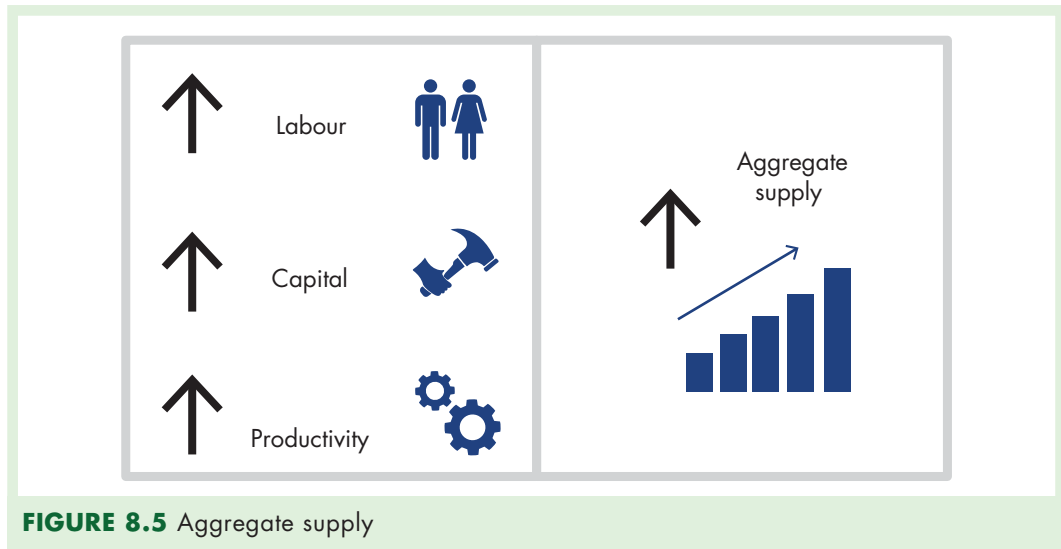
Indicator	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Unemployment	6.0	6.5	6.9	7.0
Housing approvals	2.0	2.6	4.0	4.3
New car registrations	3.5	3.0	4.2	4.7
Overtime	2.8	3.3	3.8	4.0
Inflation	7.3	6.0	5.6	5.4
Registered job vacancies	5.4	6.2	5.0	4.8
Real GDP	4.2	3.9	1.9	1.0

8.2 Measuring aggregate demand and supply

You will recall from Chapter 6 that economists use measures of aggregate demand and aggregate supply to show how demand-side and supply-side factors interact to change the overall level of economic activity within the economy. Figures 8.4 and 8.5 may help your recall of aggregate demand and aggregate supply.



Source: Economic growth explainer/
Reserve Bank of Australia



Source: Economic growth explainer/
Reserve Bank of Australia

The aggregate expenditure model offers a useful framework for analysing key economic indicators. By accurately measuring the economic indicators, economists can then focus on the instability of aggregate demand/supply and its components as determinants of what happens to the economic cycle in the short to medium term. If we focus on key demand-side economic indicators – for example, retail sales and housing approvals – we might consider the following chain of events:

- 1 Improved demand in housing and retail activity will cause overall aggregate demand to increase.
- 2 Hence, there will be a rise in sales of goods and services.
- 3 The level of inventories (unsold stock) will fall, leading to possible shortages and increased prices.
- 4 Businesses will respond by increasing output, thus utilising additional resources (unemployed labour, idle capital).
- 5 Economic activity will grow, resulting in an upswing or recovery in the economic cycle.

If we choose to centre our attention on Australia's aggregate supply, we would be examining the total quantity of all final goods and services produced by every business, whether private or government, over the course of a year. Accordingly, by monitoring key supply-side economic indicators – for example, the level of private investment in capital goods and government investment in infrastructure – a judgement can be made about the economy's productive capacity. Similarly, tracking improvements in supply-side conditions from lower production costs, workplace reform, increased profits and lower company taxes will reflect improved productive capacity. Businesses are then more willing to produce more goods and services, as their main incentive – the profit motive – is increased. If productive capacity is increasing and there is an incentive to produce more in the form of increased profits, aggregate supply will increase and hence economic activity will grow, again leading to an upswing in the economic cycle.

8.3 The economic/business cycle

CONCEPTS



Boom: the phase of the economic cycle where the general level of economic activity is above average; it is characterised by full employment and inflationary pressure due to demand being in excess of supply

Contraction: the slowing down in aggregate output and income levels due to a rise in uncertainty; also known as a 'downswing'

Disinvestment: the process of reducing or withdrawing investments in assets, businesses or sectors; this can occur when a government sells off stakes in public enterprises

Economic cycle: alternate but irregular periods of prosperity and recession of an economy; also known as a 'business cycle' or 'trade cycle'

Expansion: the acceleration in aggregate output and income levels due to a rise in

consumer and business confidence; also known as an 'upswing'

Key economic indicators: economic variables, such as unemployment rate or GDP, whose patterns of fluctuation portray in a reasonably consistent and predictable way the general course and level of aggregate economic activity

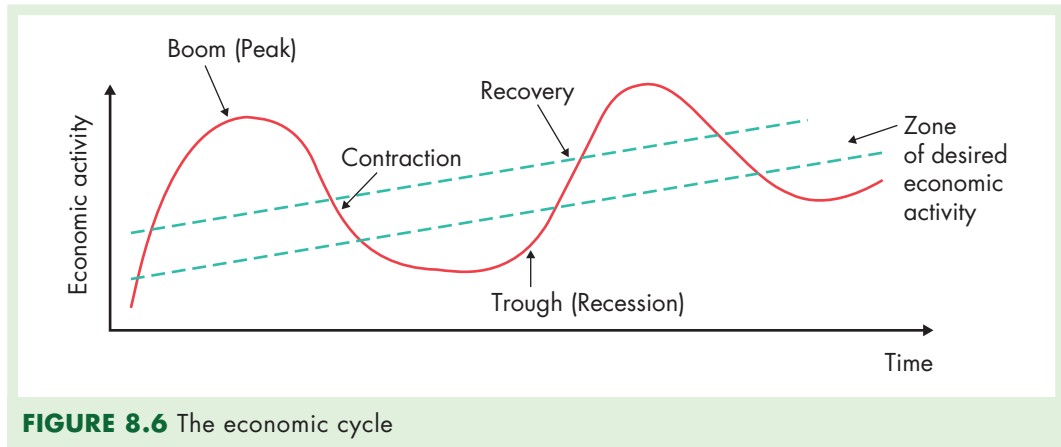
Recession: the phase of the economic cycle where the general level of economic activity is below the economy's potential, also known as a 'trough'; it is characterised by high unemployment, reduced inflationary pressure, and low business and consumer confidence; a technical recession is said to have occurred when an economy experiences two successive periods of negative economic growth; a particularly severe and prolonged recession is referred to as a 'depression'

KEY IDEA

The economy naturally fluctuates over time, cycling between periods of recession and boom. A range of economic indicators are used to assess and forecast national economic activity. Forecasts of the cycle phases are the basis of appropriate policy response.

To assess how well the government is achieving its objectives, economists attempt to identify the current phase of the **economic cycle** being experienced by the economy. This is done using a series of **key economic indicators**. Generally, the zone between the unstable **boom** and **recession** phases is considered to be the most desirable, but it is not necessarily easily attainable.

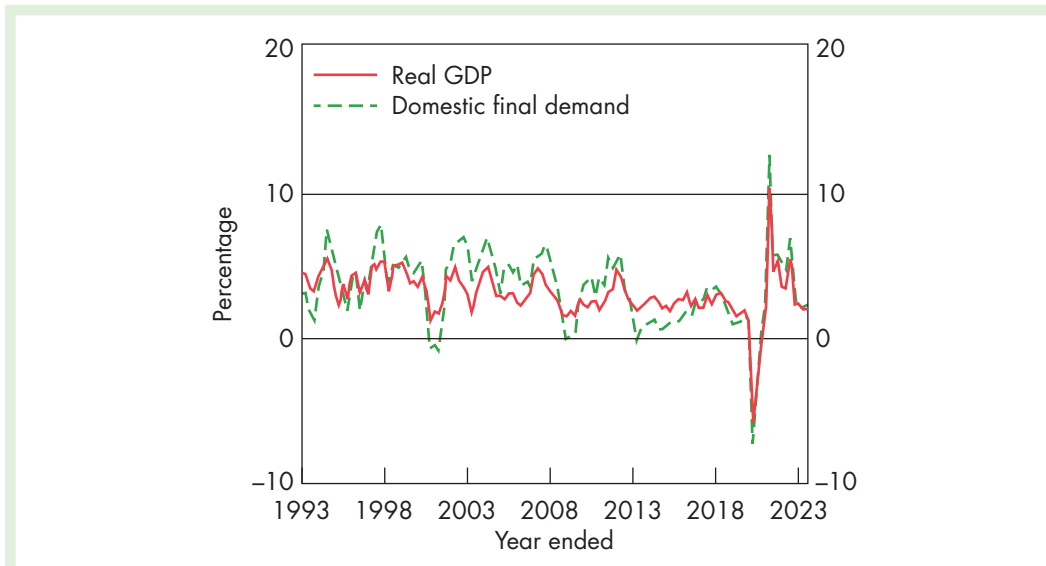
Most economists have tended to see fluctuations in the rates of inflation and unemployment as being part of a general series of fluctuations in economic activity known as the economic/business cycle. The phases of the cycle can be most easily explained with the aid of a diagram, as shown in Figure 8.6 and in the descriptions that follow.



- **Expansion or upswing:** The cycle begins with the economy moving into a period of prosperity and healthy business activity, characterised by increasing confidence on the part of producers and consumers. Demand will rise, resulting in increases in production and increases in investment. These upward forces will normally be reinforced by speculative investment and easy availability of credit.
- **Boom:** As the economy nears the stage where all resources, including labour, are fully employed, the high levels of demand will cause both the price of consumer goods and services and the cost of productive resources to rise. This is the classic boom situation of full employment and inflation.
- **Contraction or downswing:** As productive resources become more costly, producers find profits are being squeezed unless they pass on cost increases as price increases for the finished product. Eventually, this – plus the fact that consumers reach a point where they have all the consumer durables they need – will lead to a levelling off of consumer demand. A slowing down in the rate of increase of demand and production will lead to a slowing down of investment. The economy therefore begins to slow.
- **Recession or trough:** Once expenditures begin to fall, production falls. Income and demand also fall. This accelerates the decline in investment in an exact reverse of the upswing situation. Falling demand results in smaller profits and a smaller demand for productive resources. If this contraction is not controlled, the economy will enter a phase of recession characterised by minimal inflation, high unemployment and falling living standards.

The classic example of recession was the Great Depression of the 1930s. A more recent example was the Global Financial Crisis (GFC) of 2008–09. The GFC led to the majority of nations entering into recession; however, Australia was still able to grow its economy through the considered use of fiscal and monetary policy measures, thus avoiding the associated hardships of high unemployment and falling standards of living.

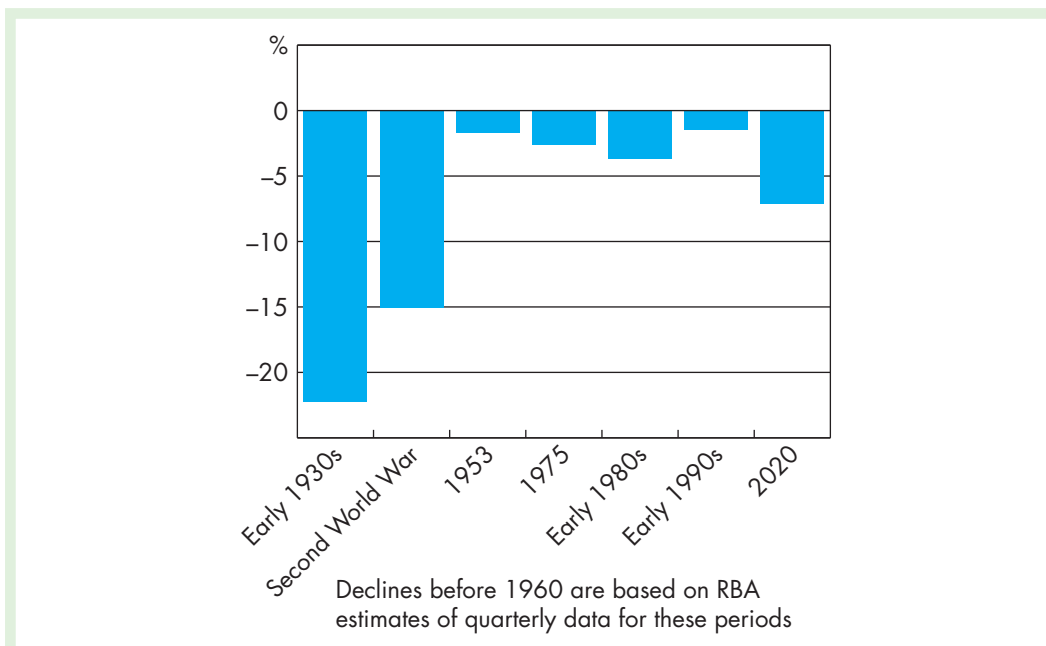
The COVID-19 recession during 2020–21 marked the end of Australia's record stretch of uninterrupted economic growth since 1991 (see Figure 8.7).



Source: Nguyen, V., Robinson, T., & Tsiaplias, S. (2024). *Australian Economy in 2023–24: Navigating a Narrow Path*. *Australian Economic Review*, 57(1), 5–20.

FIGURE 8.7 Real GDP and domestic final demand growth

The COVID-19 pandemic had significant economic consequences for the Australian and world economies due to the immediate suspension of many economic activities to contain the virus. The result was a large economic contraction around the world. Australia's GDP fell a substantial 7 per cent in the June quarter of 2020. This was the largest contraction of the Australian economy since the end of the Second World War, as seen in Figure 8.8.



The COVID-19 Pandemic: 2020 to 2021, Explainer. © Reserve Bank of Australia, CC BY 4.0

FIGURE 8.8 Peak-to-trough declines in GDP; major contractions, quarterly

As reported by the RBA, the largest contributor to the decline in GDP in 2020 was a fall in household consumption, but a reduction in exports and business investment also contributed. This was partly offset by an increase in government spending and a fall in imports.

During this period, substantial fiscal and monetary support was introduced, which was unprecedented in scale and speed.

Eventually, economic activity rebounded as COVID-19 restrictions were lifted, vaccination programs were rolled out, and households and businesses were supported by historically large stimuli.

There are a number of factors that may cause the economy to begin to move out of a slump and start on the upswing again. Throughout the downswing, investment decreases until, during the recession phase, there will probably be **disinvestment**, or at least very little investment. As the production of consumer goods is still occurring, capital equipment will eventually have to be replaced. The resultant increase in investment expenditure will move the economy through the trough and start an upswing.

The psychological effects, frequently described as business and consumer confidence, will often reinforce fluctuations. Firms and consumers realise that recession conditions cannot continue indefinitely. In anticipation of better times, they will begin to increase production and demand, respectively. External factors, such as changes in the country's trading position, may also have an influence here. For example, Australia's strong trading relationship with China was one of the reasons why the GFC had minimal impact on our economy. Once the economy is on the upswing, the cycle starts all over again.

Although simplified, this model illustrates the general features of the economic cycle. Cycles are very irregular. Some are as short as four years' duration; others can last more than eight years. Generally speaking, the unemployment rate rises and falls as the rate of growth of real GDP – that is, general economic activity – rises and falls. The rate of inflation has also tended to rise and fall with real GDP. Fluctuations in unemployment and inflation usually lag behind fluctuations in real GDP.

CHECK FOR UNDERSTANDING 8.1

- 1 **Recall** the economic cycle.
- 2 **Explain** the various stages of the economic cycle.
- 3 **Explain** why you think governments have difficulty eliminating the swings in the economic cycle.
- 4 **Explain** why economists consider a boom to be undesirable.



FIGURE 8.9 The GFC led to the majority of nations entering into recession.

ECONOMICS IN ACTION



Compile a bibliography of current sources of information regarding the present state of the Australian economy and where economic commentators think our nation sits in the present economic cycle. Once you have concluded your research, make a decision regarding where Australia is in its economic cycle and predict where Australia's economy will be in relation to the economic cycle one year from now. You will need to research widely to obtain a range of economic data and opinion. Ensure that you use a recognised referencing system, such as the Harvard system.

Select at least one source and write a brief review using the following structure.

- Identifying questions:
 - What do I already know about the topic?
 - What do I want/need to know about the topic?
- Researching resources:
 - What primary and secondary resources can I find?
 - Where do I find them?
 - How do I know the information is valid and reliable?
 - What other information do I need?
- Interpreting and analysing information:
 - How is the information relevant to the question? Is there any bias?
 - What parts support my answer?
 - Are new concepts/models raised?
- Making decisions and evaluating the evidence:
 - What criteria could I use to answer the question?
 - Are some criteria more important than others? If so, which ones?
 - Does the evidence match the criteria?
 - What is my decision/conclusion?

The websites of the organisations on Nelson MindTap may help you get started.



8.4 The economic cycle and economic objectives

CONCEPTS



Phillips curve: a graph of the proposition that there is a trade-off between inflation and the unemployment rate

Stagflation: where inflation exists simultaneously with low levels of economic activity

The relationship between inflation and unemployment is not necessarily straightforward, but the nature of this relationship has important implications for effective use of fiscal policy. Until the 1970s, the existence of a trade-off between inflation and unemployment was widely accepted by economists. In 1958, A.W. Phillips, a New Zealand economist, published an analysis of economic data that revealed an apparent stable, inverse relationship between the rate of inflation and the unemployment rate. This offered policy makers the proposition that they could simply choose the desired combination of inflation and unemployment, and then choose appropriate discretionary, aggregate demand management policies to achieve it.

The graph in Figure 8.10 shows that increases in AD cause GDP to rise, which should cause unemployment to fall. As aggregate demand rises and GDP nears full employment, small gains in output and employment are matched by increasingly higher inflation. Further reductions in unemployment are achieved at the expense of increasing rises in the price level. The aggregate demand–aggregate supply analysis suggests that policy makers have a choice – they can lower unemployment by stimulating AD , but must accept a higher rate of inflation, as a trade-off.

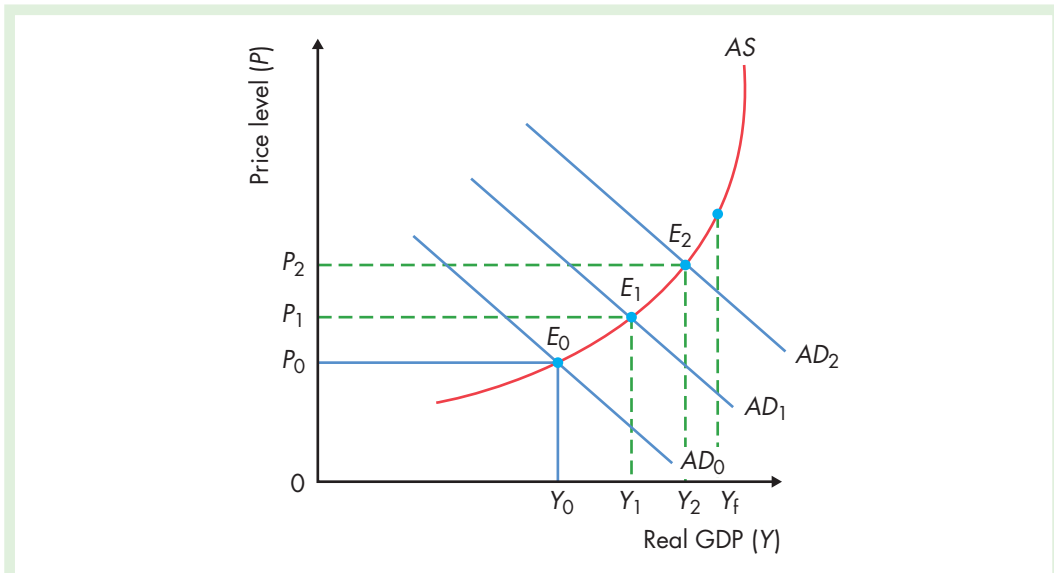


FIGURE 8.10 Employment and price effects of increasing aggregate demand

If the **Phillips curve** relationship exists, as shown in Figure 8.11, then policy makers may choose a desired inflation–unemployment combination.

Demand-pull and cost-push theories of inflation and unemployment can be represented by the Phillips curve. An increasing AD , as in Figure 8.11, can be represented by a movement along the Phillips curve (point a to point b).

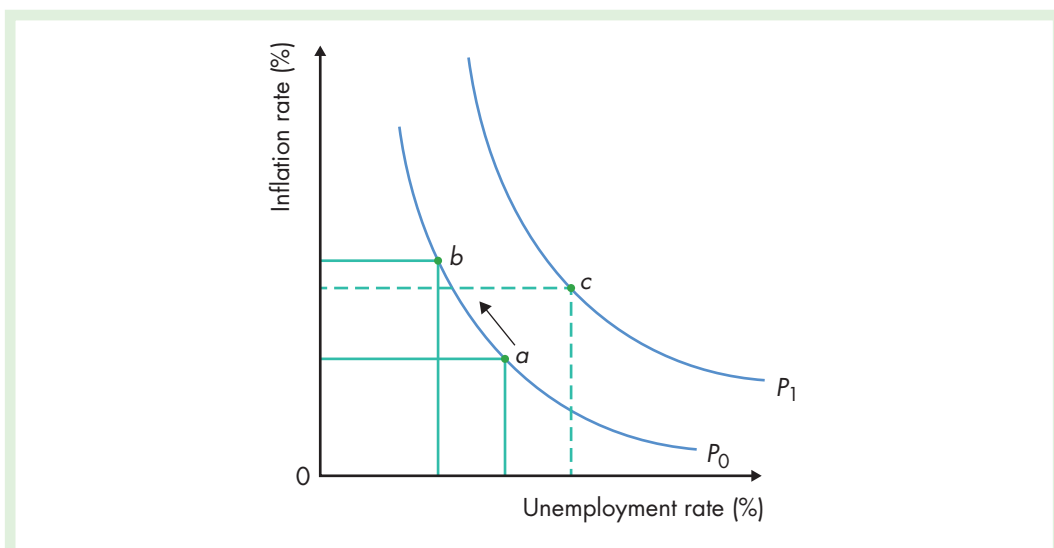


FIGURE 8.11 The Phillips curve

Stagflation emerged in the Australian economy in the 1970s, where inflation and increasing unemployment occurred at the same time. This challenged the notion of a trade-off. However, it can be represented by shifting the curve and moving from point *a* to point *c*. Cost-push influences – such as rising oil prices, aggressive trade union demand for higher money wages, increased prices of inputs, or increased profit margins from firms with monopoly power – can cause the Phillips curve to shift from P_0 to P_1 .

Monetarists argue that in the long run, there is no trade-off between inflation and unemployment. They conclude that any attempt to stimulate aggregate demand to reduce unemployment, in the belief that a Phillips curve relationship does exist, will only result in inflation, with no long-term reduction in unemployment. In effect, what they are saying is that aggregate demand management through fiscal and monetary policy is not only ineffective, but is an actual source of macroeconomic instability. Consequently, economists consider supply-side and microeconomic reform in their management strategy. The key notion underlying their attack on the Phillips curve trade-off is inflation expectations.

8.5 Budget outcomes

KEY IDEA

The main fiscal policy aim of the Commonwealth Government is to achieve fiscal balance, on average, over the course of the economic cycle, but each budget affects the level of domestic economic activity in the short term and may initiate structural change over the medium-to-long term.

The effect of budgets on the overall level of aggregate demand in the economy over the short-to-medium term is the central focus of this chapter. Fiscal policies can also have significant effects on resource allocation, the distribution of income and individual household budgets.

There is a clear link between the outcome of Commonwealth budgets and the state of the economic cycle this century. It is not always easy to separate the role that discretionary fiscal policy and non-discretionary cyclical factors play in the outcome of a particular budget. Economists sometimes disagree about whether a budget's effect is contractionary, expansionary or neutral.

8.5.1 Measurement of outcomes

The Commonwealth Budget provides two measures of the budget outcome: the fiscal balance and the underlying cash balance outcome. They are derived from different accounting methods: the accrual method is used for the fiscal balance and the cash accounting method is used to calculate the underlying cash surplus or deficit. It is unlikely that either measure will be 'balanced'; the budget outcome will be a surplus or a deficit.

The fiscal balance is derived by subtracting total government expenses and net capital investment from total Commonwealth revenue. It is regarded as the better long-term indicator, while the underlying cash balance gives the best indication of the impact of fiscal policy on the level of economic activity within the budget year.

Both measures exclude one-off items, such as loans to state governments, and the value of fixed-asset sales by the government; for example, land, buildings and government-owned businesses. These one-off items are excluded because they will not generate new economic activity in the short run but merely shift the ownership of assets. The costs associated with funding the superannuation entitlements of public servants are included, even though most of this cost will not be realised in that financial year.

Each December the government releases a mid-year update to the budget estimates, called the Mid-Year Economic and Fiscal Outlook (MYEFO). This shows the degree to which the budget outcomes are matching the estimates at the mid-point of that budget cycle. There are often significant differences from the original budget estimates. These reflect unexpected cyclical changes in the level of economic activity, time delays in enacting planned expenditures, and revenue and spending that has not been legislated for a variety of reasons. Aspects of the budget may be adjusted, and supplementary fiscal decisions may be made by the government, especially in response to the information in the MYEFO.

iStock.com/sasirin pamai



FIGURE 8.12 There is a link between the Commonwealth Budget and the state of the economic cycle.

8.5.2 Cyclical factors

Australia experienced its longest period of economic growth from 1991 up until the COVID-19 pandemic, which required a coordinated fiscal and monetary response: see Figure 8.13. These business conditions were reflected in Commonwealth Budget outcomes.

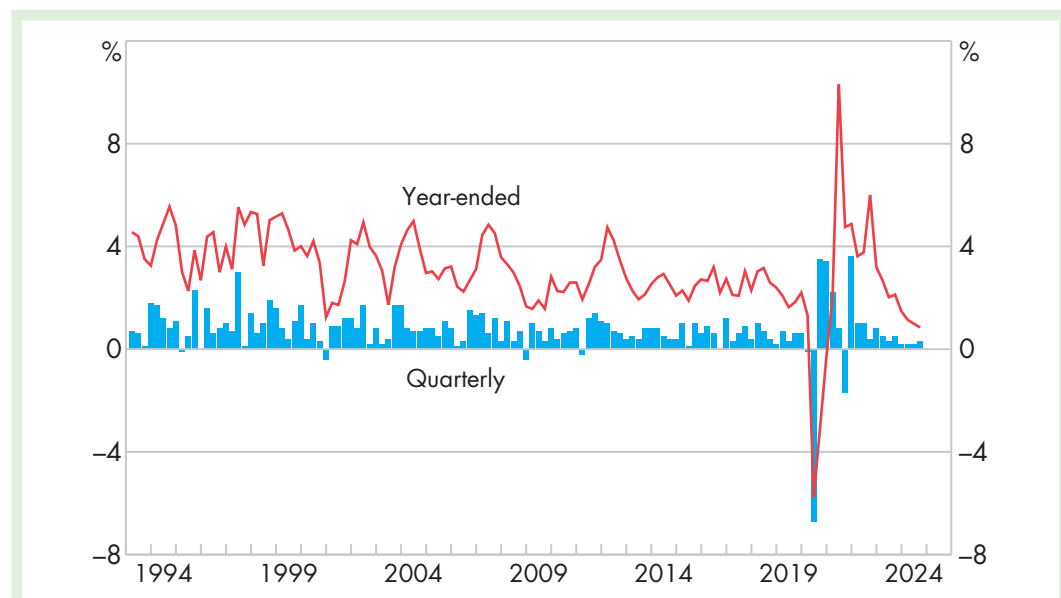
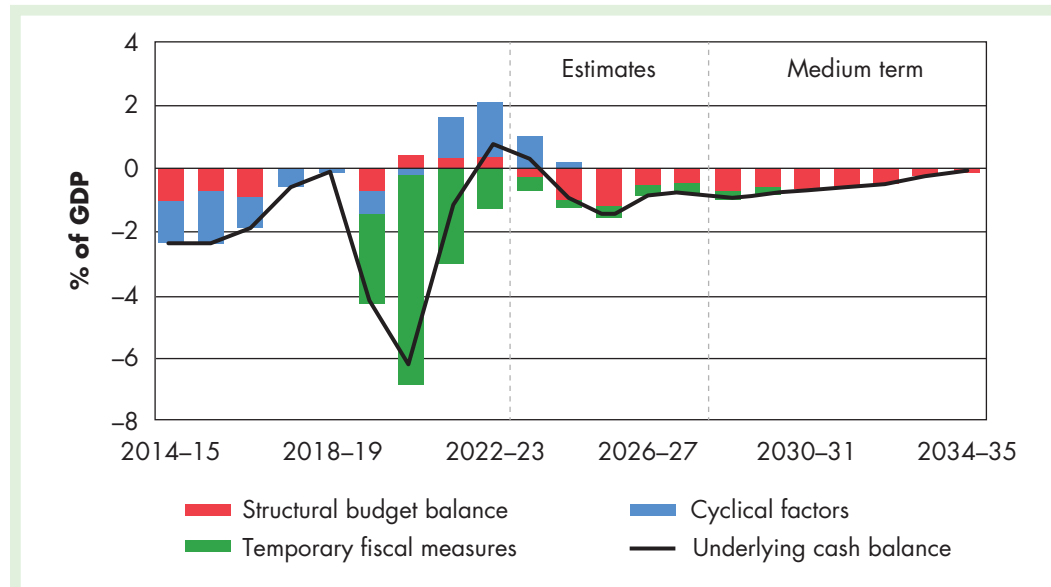


FIGURE 8.13 GDP growth, 1994–2024

Chart Pack Australian Growth, February 19, 2025. © Reserve Bank of Australia, CC BY 4.0

Each Commonwealth Budget handed down by the government contains forward estimates/projections: see Figure 8.14.



Source: Commonwealth of Australia

FIGURE 8.14 Structural budget balance

CHECK FOR UNDERSTANDING 8.2

- 1 **Distinguish** between the fiscal balance and the underlying cash balance.
- 2 **Explain** the difference between revenue and expenses.
- 3 What does a '-' sign in front of a budget aggregate (number) indicate?
- 4 Budget documents contain actual figures, estimates and projections. **Explain** the different natures and purposes of these three types of data.
- 5 **Analyse** the explanation provided in the most recent budget document for the size of the predicted budget deficit in that year. **Evaluate** this explanation using the criteria of stakeholders.

8.5.3 Budget impacts: Fiscal stance

To understand fiscal policy, we must look beyond the budget outcome to its intended economic impact. There are three fiscal policy stances: contractionary, neutral and expansionary. These refer to the intended effect of the budget on the level of economic activity. It is the changes in the relative sizes of expenditure (G) and revenue (T) that determine a budget's impact on the economy.

Chapter 6 discussed how Keynesian income and expenditure analysis shows that the level of economic activity will contract if G decreases or T increases. An increase in G or a decrease in T will expand economic activity. A budgetary surplus is not necessarily contractionary; cutting the size of a surplus will have an expansionary effect. Economic activity can also be expanded by moving from a small deficit to large deficit. Conversely, reducing the size of a budget deficit will have a contractionary effect.

To identify the government's fiscal stance – that is, to see if it is deliberately conducting expansionary or contractionary fiscal policy – the effect on the budget balance of the cyclical phase of the economy needs to be removed. This can be done by deriving the budget balance that would exist at a set level of economic activity: the full employment level of GDP. If a change in the full-employment budget balance were observed, it must be a result of deliberate changes to government expenditures and/or taxes. The full-employment budget balance is also referred to as the cyclically adjusted budget balance.

In summary:

- **an expansionary fiscal policy stance** is indicated by an increase in the cyclically adjusted budget deficit or a decrease in the cyclically adjusted budget surplus
- **a contractionary fiscal policy stance** is indicated by a decrease in the cyclically adjusted budget deficit or an increase in the cyclically adjusted budget surplus.



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FIGURE 8.15 The government's fiscal stance is either expansionary or contractionary.

The budget papers provide an indication of the relative importance of discretionary (structural) factors and non-discretionary (cyclical) factors in causing actual budget outcomes. These are provided in tables that provide details of the net operating balance, such as in Figure 8.16.

FIGURE 8.16 Reconciliation of net operating balance estimates

	Estimates			Projections		Total
	2023–24 \$m	2024–25 \$m	2025–26 \$m	2026–27 \$m	2027–28 \$m	
2023–24 Budget fiscal balance	–14 144	–45 278	–35 035	–32 813	*	*
Per cent of GDP	–0.5	–1.7	–1.3	–1.1	*	*
Changes from 2023–24 Budget to 2023–24 MYEFO						
Effect of policy decisions ^(a)	–1 012	–2 488	–781	–823	*	*
Effect of parameter and other variations	17 577	22 992	2 842	10 770	*	*
Total variations	16 565	20 503	2 601	9 947	*	*
2023–24 MYEFO fiscal balance	2 421	–24 775	–32 974	–22 866	*	*
Per cent of GDP	0.1	–0.9	–1.2	–0.8	*	
Changes from 2023–24 MYEFO to 2024–25 Budget						
Effect of policy decisions ^{(a)(b)}						
Revenue	54	2 267	–956	3 366	5 972	10 702
Expenses	292	12 049	7 893	4 523	1 923	26 680
Net capital investment	12	1 587	1 843	1 028	3 980	8 449
Total policy decisions impact on fiscal balance	–250	–11 369	–10 691	–2 186	69	–24 427
Effect of parameter and other variations ^(b)						
Revenue	6 201	8 945	7 652	2 521	*	*
Expenses	1 472	6 480	7 453	5 705	*	*
Net capital investment	–1 153	–4 362	–862	–1 722	*	*
Total parameter and other variations impact on fiscal balance	5 882	6 827	1 061	1 461	*	*
2024–25 Budget fiscal balance	8 053	–29 316	–42 604	–26 514	–22 026	–112 408
Per cent of GDP	0.3	–1.1	–1.5	–0.9	–0.7	

* Data is not available.

(a) Excludes secondary impacts on public debt interest of policy decisions and offsets from the Contingency Reserve for decisions taken.

(b) A positive number for revenue improves the fiscal balance, while a positive number for expenses and net capital investment worsens the fiscal balance.

Source: Budget Paper No. 1, Budget 2024–25, Table 3.9 page 117. © Commonwealth of Australia 2024, CC BY 4.0

Figure 8.16 shows that the 2024–25 budget had a stimulatory effect on the Australian economy, with a fiscal deficit of \$29 316 million and an underlying cash balance of \$–45 278 million. Figure 8.17 shows whether the fiscal outcome resulted from structural policy changes (discretionary fiscal policy) or from cyclical changes in revenue and spending (automatic stabilisers).

FIGURE 8.17 Identifying the fiscal stance detailed in Figure 8.16

	Changes from 2024–25 budget to 2024–25 MYEFO (\$m)	Changes from 2024–25 MYEFO to 2024–25 budget (\$m)	Total change from previous budget estimate (\$m)
Effect of policy decisions (structural components)	–2 488	–11 369	–13 857
Effect of changes in parameters (cyclical component)	22 992	6 827	29 819

The large negative policy decision impact, –\$13 857 million (\$13.8 billion), indicates that the government adopted measures to stimulate economic activity. In this case, it was cost of living relief to counter high inflation. In 2024–25, cyclical factors strongly contributed to fiscal outcomes, with a significant \$22 992 million (\$22.9 billion) positive effect initially and \$6827 million (\$6 billion) later, culminating in \$29 819 million (\$29.8 billion). This reflects a substantial boost from external economic conditions or recovery phases of the economic cycle.

8.6 Recent Australian federal budget outcomes including cyclical and structural causes and effects of expansionary and contractionary fiscal policy stances

8.6.1 An example of a fiscal policy response: COVID-19

COVID-19 required a fiscal policy response due to the deterioration of the economic outlook. This was combined with a monetary policy response from the RBA. These policies were designed to support aggregate demand and employment, and were introduced from March 2020 onwards. Substantial support payments were made to households and businesses, as reported by the RBA:

- The largest measure was the JobKeeper Payment, which gave employers a wage subsidy for eligible employees to help keep employees and firms connected. This program played a crucial role in supporting employment and income over the first half of 2020.
- Other government payments, including the Economic Support Payment (ESP) and the Coronavirus Supplement, gave substantial income support to households receiving JobSeeker. Some households were also able to supplement their cash flows by withdrawing from their superannuation.
- Additional policy initiatives – such as cash flow boosts for employers and temporary enhancements to the Instant Asset Write-off scheme – supported the cash flows and balance sheets of small and medium businesses.

Further policies were announced over the course of the pandemic, including the HomeBuilder program, which provided grants to support the construction of residential homes. In response to virus outbreaks, the Australian Government extended disaster payments to affected households, and state governments introduced packages to support affected businesses.

Overall, there was a historically large increase in spending by the Australian Government, as well as by state and territory governments. Alongside a decline in tax revenue, this resulted in the 2020–21 federal budget recording the largest deficit since the Second World War.

8.7 The Australian Government's economic management and achievement of its objectives

The government's economic management aims to achieve the following key objectives:

- **Sustainable economic growth:** By implementing fiscal policies that balance stimulation and restraint, the government seeks to foster steady and sustainable economic growth. For example, the fiscal surplus achieved in 2023–24 provided a buffer for future economic uncertainties.
- **Low unemployment:** Targeted spending on infrastructure and services can create jobs and reduce unemployment rates.
- **Price stability:** Fiscal policies are coordinated with the RBA's monetary policies to control inflation and maintain price stability.

8.7.1 Australia's fiscal balance 2014–24

Between 2014 and 2024, Australia's fiscal outlook experienced significant fluctuations, influenced by both domestic and global factors. A summary of the budget balances during this period includes the following.

2014–19: Persistent deficits

From 2014 to 2019, Australia recorded consecutive budget deficits. For instance, the 2017 federal budget forecast a deficit of \$29.3 billion, equivalent to 1.6 per cent of GDP. Similarly, the 2018 federal budget anticipated a deficit of \$18.2 billion, marking the eleventh consecutive budget deficit. These deficits were primarily due to increased government spending and global economic conditions.

2019–20: Pre-pandemic projections

Prior to the COVID-19 pandemic, the government projected a surplus of \$2.2 billion for the 2019–20 fiscal year. However, the unforeseen economic impact of the pandemic disrupted these plans, leading to increased spending on stimulus measures and health responses, which resulted in a deficit.

2020–22: Pandemic-induced deficits

The COVID-19 pandemic necessitated substantial government expenditure to support the economy, leading to significant budget deficits during these years. The exact figures varied as the government implemented various stimulus packages to mitigate the economic downturn.

2022–23: Return to surplus

In the 2022–23 fiscal year, Australia achieved a budget surplus of \$22.1 billion, equivalent to 0.9 per cent of GDP. This marked the first surplus in 15 years and was attributed to a strong employment market and elevated commodity prices.

2023–24: Consecutive surplus

The 2023–24 budget recorded a surplus of \$9.3 billion, making it the first consecutive surplus in nearly two decades. This outcome was achieved despite global economic uncertainties, reflecting the government's commitment to fiscal responsibility.

These outcomes highlight the complex interplay between external shocks, such as pandemics, and internal policy decisions in shaping fiscal performance.

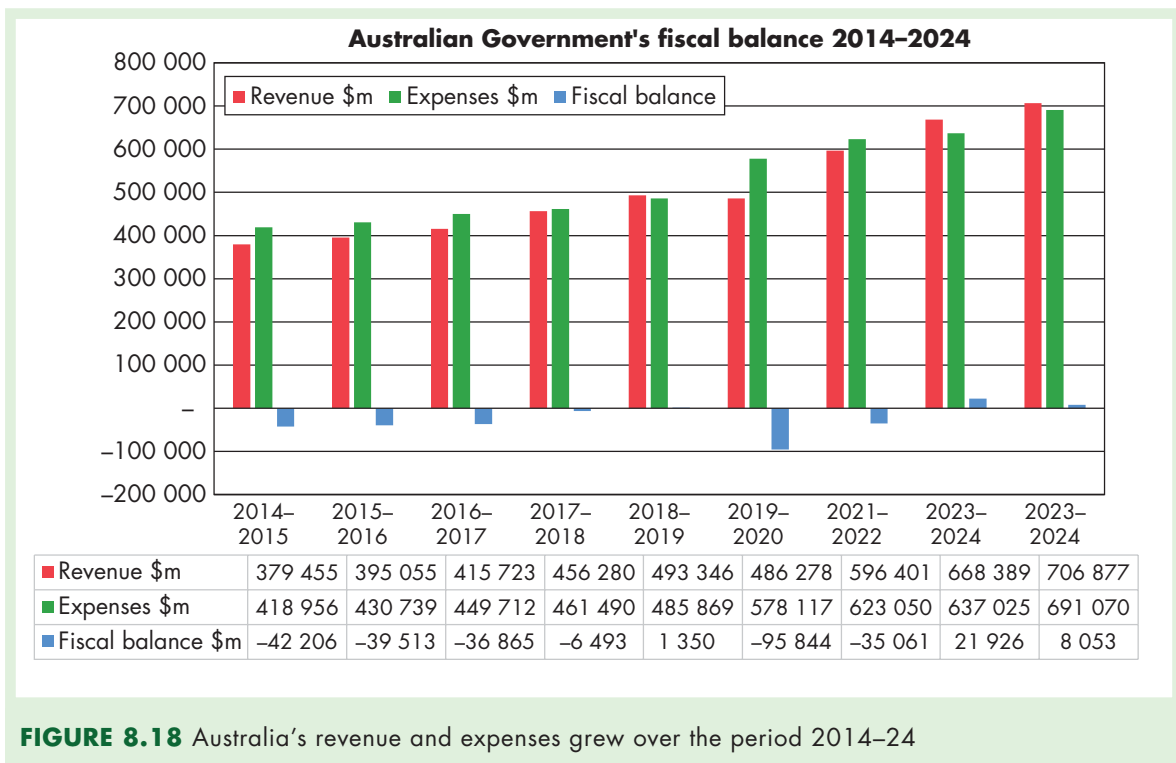


FIGURE 8.18 Australia's revenue and expenses grew over the period 2014–24

CHECK FOR UNDERSTANDING 8.3

- 1 **Explain** the key differences between the causes of Australia's budget deficits from 2014 to 2019 and the budget surplus achieved in 2022–23.
- 2 **Describe** how the Australian Government's fiscal policies during the COVID-19 pandemic aimed to support the economy. Include examples of specific measures.
- 3 **Describe** examples of structural and cyclical factors that influence Australia's fiscal policy. How do these factors impact budget outcomes?
- 4 **Explain** how the Australian Government uses fiscal policy to achieve its economic objectives, such as sustainable growth, low unemployment and price stability.

R 8.1 Terminology

Select the correct term from the list below that describes each statement.

A Leading indicator	F Economic cycle
B Lagging indicator	G Expansion
C Aggregate demand	H Contraction
D Aggregate supply	I Automatic stabilisers
E Fiscal policy	J Discretionary fiscal policy

- 1 The slowing down in aggregate output and income levels due to a rise in uncertainty
- 2 An indicator that provides information regarding changes in the economy before they occur in the economic cycle
- 3 Level of expenditure on total production or output that is planned at various price levels
- 4 An indicator that provides information regarding changes in the economy after they occur in the economic cycle
- 5 The level of total production or output that producers plan to supply at various price levels
- 6 Measures undertaken by governments in relation to raising revenue through taxation and determining the nature of government expenditure, aimed at influencing a nation's aggregate demand
- 7 Those elements of non-discretionary fiscal policy that operate without the need for government action
- 8 The acceleration in aggregate output and income levels due to a rise in consumer and business confidence
- 9 Deliberate changes to fiscal policy instruments to influence the level of aggregate demand
- 10 Alternate but irregular periods of prosperity and recession of an economy

R 8.2 Multiple-choice questions

Select the correct response to each of the following:

- 1 Which of the following is a leading indicator?
 - A CPI
 - B retail sales
 - C dwelling approvals
 - D job vacancies
- 2 What is the primary purpose of lagging indicators?
 - A to predict future economic trends
 - B to confirm trends after changes occur
 - C to measure current economic activity
 - D to guide monetary policy decisions
- 3 Which phase of the economic cycle is characterised by high employment and inflation?
 - A recession
 - B boom
 - C contraction
 - D expansion

Review of Chapter 8

- 4 What does a composite index represent?
 - A a single type of economic indicator
 - B the average income level of households
 - C a combined measure of leading, lagging and coincident indicators
 - D the government's fiscal policy stance
- 5 During a recession, what is most likely to increase?
 - A inflation
 - B employment
 - C consumer confidence
 - D unemployment
- 6 How did the Australian Government respond to the COVID-19 economic downturn?
 - A It increased taxes across all sectors.
 - B It implemented JobKeeper Payments and economic support programs.
 - C It reduced public health expenditures.
 - D It introduced austerity measures.
- 7 What is an example of a structural factor affecting fiscal policy?
 - A changes in consumer spending
 - B global economic downturns
 - C an ageing population
 - D seasonal demand fluctuations
- 8 Which economic indicator is directly linked to consumer confidence?
 - A retail sales
 - B money supply
 - C CPI
 - D unemployment
- 9 What fiscal stance involves reducing government spending or increasing taxes?
 - A expansionary
 - B neutral
 - C contractionary
 - D progressive
- 10 What is the key outcome of increased aggregate supply?
 - A decreased production capacity
 - B economic contraction
 - C growth in economic activity
 - D rising unemployment
- 11 What was the largest fiscal support measure introduced during COVID-19?
 - A HomeBuilder program
 - B JobKeeper Payments
 - C instant asset write-off scheme enhancements
 - D Economic Support Payments

- 12 What is a characteristic of the 'boom' phase in the trade cycle?
- A high unemployment
 - B rising resource costs
 - C reduced consumer demand
 - D decreased production
- 13 Which type of indicator would include factory production data?
- A leading
 - B coincident
 - C lagging
 - D structural
- 14 What is a key feature of automatic stabilisers?
- A They require parliamentary approval.
 - B They adjust with the economic cycle automatically.
 - C They increase economic volatility.
 - D They are determined annually in the budget.
- 15 How did the Australian Government respond to rising inflation in 2024–25?
- A It reduced government spending.
 - B It introduced cost-of-living relief measures.
 - C It lowered superannuation tax thresholds.
 - D It reduced taxation on luxury goods.

R 8.3 Activities

- 1 Work in small groups. Your teacher will assign each group a specific phase of the economic cycle (expansion, boom, contraction or recession). Each group should research the key indicators associated with their phase and present to the class how these indicators reflect the economy's position.
- 2 Use the Parliamentary Budget Office website to find data on Australia's fiscal outcomes (deficits and surpluses) over the past three years. **Construct** a line graph showing trends and annotate any major economic events
- 3 **Describe** how automatic stabilisers function during an economic recession.
- 4 **Describe** the impact of cyclical and structural factors on Australia's fiscal stance during the COVID-19 pandemic.
- 5 **Explain** how the government uses fiscal policy to achieve the economic objective of sustainable growth.



Weblinks
Historical budget
forecasts

Parliamentary
Budget Office

R 8.4 Role-play activity: Government budget planning simulation

Objective: Students will simulate the process of creating a federal budget to address current economic challenges.

Instructions:

- 1 Work in small groups. Assign roles to the members of your group, such as 'Treasurer', 'Minister for Health', 'Minister for Education' and 'Opposition Leader'.
- 2 Your teacher will provide a scenario; for example; 'The economy is in a contraction phase with rising unemployment and low consumer confidence.'
- 3 Each group must propose a budget plan, including tax changes, spending priorities and justification for their fiscal stance (expansionary or contractionary).
- 4 Each group presents their budget to the class, and the 'Opposition Leader' critiques their proposals.

R 8.4 Inquiry

- 1 Investigate historical and recent data on the rates of unemployment and inflation to test the hypothesis on which the Phillips curve is based. What relationship does your research suggest exists between these two key economic indicators?

Economics in Action worksheets:

8.1 Forecasting

 Nelson MindTap

To access resources above, visit
cengage.com.au/nelsonmindtap



South west images/Adobe Stock Photos

9

Economic management: Demand management policies – fiscal policy

The Australian Government implements fiscal policy to stabilise the level of demand in the economy and help promote its economic objectives.

Focus questions and inquiries

- What is fiscal policy?
- What are the strengths of and limitations to the effectiveness of fiscal policy to achieve Australia's economic objectives in the future?

This chapter will examine:

- the nature and focus of demand management policies
- the main sources of income in the Commonwealth Budget
- the main components of expenditure in the Commonwealth Budget
- time lags and exogenous factors.

9.1 The nature of fiscal policy

CONCEPTS



Budget: a statement of the government's estimated revenue and expenditure for the coming financial year

Fiscal policy: refers to government decisions about taxation and spending that influence aggregate demand; can be discretionary or non-discretionary (automatic stabilisers)

Taxation: the revenue that a government obtains from economic activity and participants in that activity; it is a leakage from the circular flow of income

KEY IDEA

Government budgets outline planned spending and estimated revenues for the following financial year and reflect the policy priorities of the government. They detail not only the funds available for government activities, but also the strategy for influencing the level of macroeconomic activity and promoting structural changes.

The term **fiscal policy** includes any measure connected with a government's **budget**. Budgets are essential to the functioning of government. Once the Australian Parliament votes to accept the Commonwealth Budget, money can be released from the Commonwealth's accounts with the Reserve Bank of Australia (RBA) to fund the salaries of federal public servants, payments to recipients of welfare programs, and allocations to state government spending programs (including schools and hospitals). Government taxes and charges can only be collected if they are supported by government legislation or regulations.

The budget is an annual statement of the expected revenues (or receipts) and planned expenditures for the next financial year (1 July to 30 June). It is usually tabled in the Australian Parliament in May.

The figures in the budget are the best estimates of the Treasury, but they change as economic conditions and government policy priorities change, so the actual budget outcomes vary from the original estimates. In December of each year, a Mid-Year Economic and Fiscal Outlook (MYEFO) is released containing updated forecasts. A Pre-Election Economic and Fiscal Outlook (PEFO) is issued before each federal election.

Economists are interested in the effects of adjustments to the level and structure of government expenditure and revenue collection on the level of economic activity in the domestic economy, the pattern of resource allocation between the public and private sectors, and the distribution of income between low-, middle- and high-income earners. By varying the level of spending, **taxation** and government charges, the government can influence economic growth, the level of employment and inflation, and the distribution of income and aspects of equity. Such changes will also affect imports and exports, and therefore the achievement of external balance. Fiscal policy may be automatic or the result of deliberate government initiatives, as discussed in Chapter 7.



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FIGURE 9.1 Figures in the budget are prepared by the Australian Treasury.

9.2 Government income and expenditure

CONCEPTS



Direct tax: a tax paid directly by the individual or business it is levied on, such as income tax or company tax

Indirect tax: any tax on aspects of economic activity other than income; for example, goods and services tax, carbon tax or customs duty; these can be passed on to others by the firm on which the tax is levied

Progressive tax: a tax system in which the percentage of tax payable increases as income rises (as opposed to proportional tax, where the percentage remains constant, and regressive tax, where it decreases)

Proportional tax: a tax system where the tax rate remains the same, regardless of income level

Regressive tax: a tax system in which the ratio of the tax to income is lower with large incomes than with small incomes

Taxation criteria: criteria for judging whether a tax is a good tax or not; criteria such as equity, efficiency and simplicity are suggested

Transfer payments: payments from government to individuals and households in the form of cash social welfare payments, such as pensions, unemployment benefits, childcare subsidies and family allowances

The budget includes details of all forms of government income: see Figure 9.2 on the following page. These include:

- **direct taxes** on individuals (income tax, the Medicare levy) and businesses (tax on company profits)
- **indirect taxes** (the goods and services tax, customs and excise duties)
- other revenues (dividends from government business enterprises and the sale of government assets).

Source: Budget 2024–25, © Commonwealth of Australia 2024, CC BY 4.0.

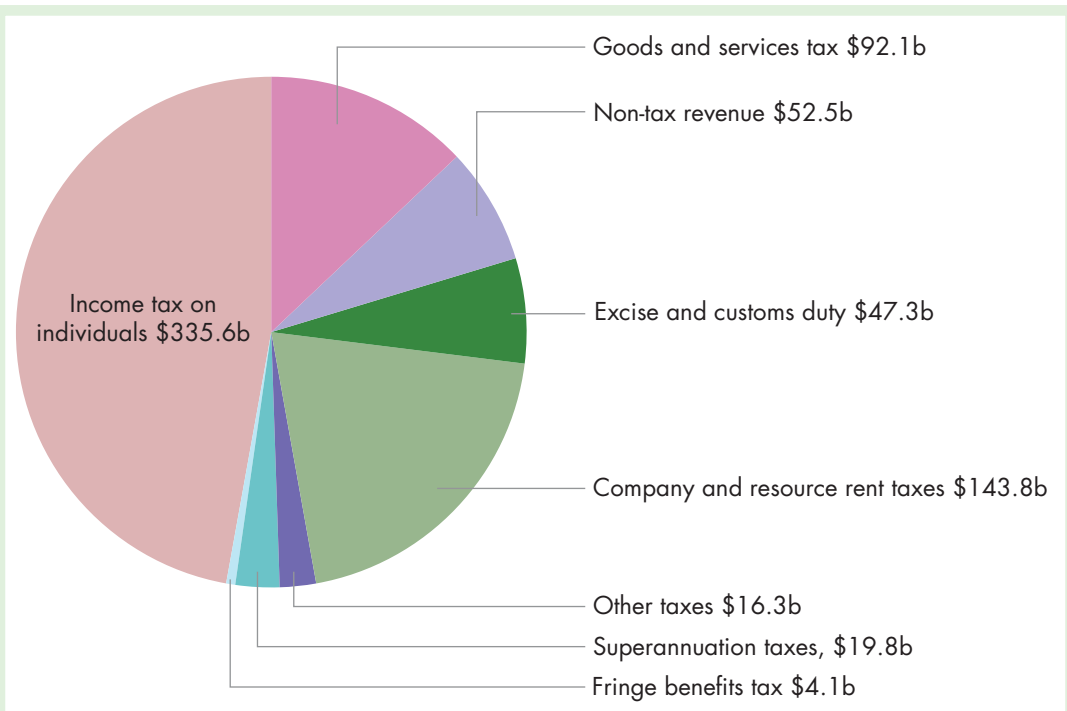


FIGURE 9.2 Where Commonwealth Government revenue comes from, 2024–25

The budget also details government expenditure: see Figure 9.3. The main items of government expenditure are:

- social security and welfare
- public administration
- health
- education
- defence.

Source: Budget 2024–25, © Commonwealth of Australia 2024, CC BY 4.0.

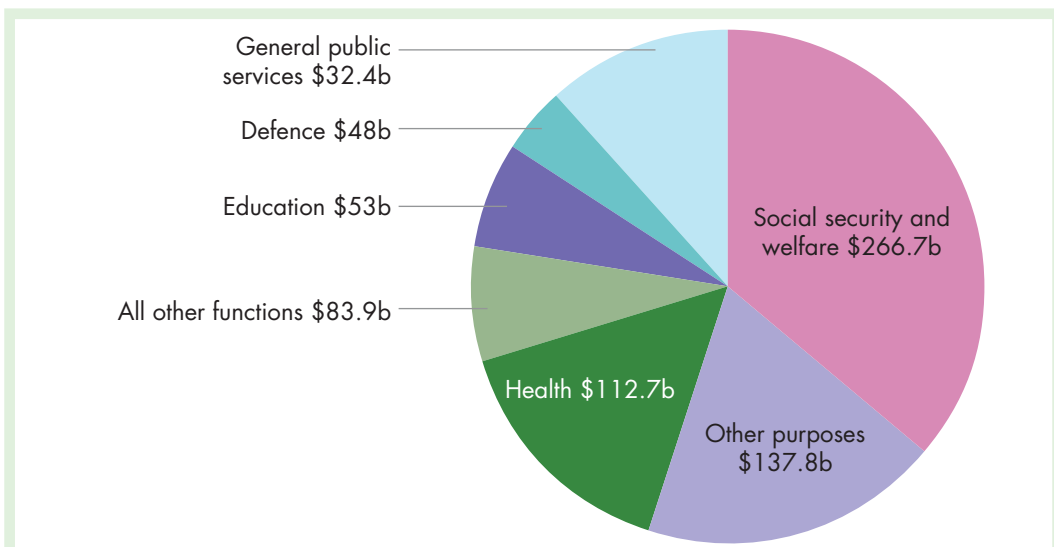


FIGURE 9.3 Where taxpayers' money was spent, 2024–25

Social security and welfare is typically the largest component of government spending in Commonwealth budgets. These budget allocations fund social welfare payments, such as pensions, unemployment benefits, childcare subsidies and family allowances. They are classified as **transfer payments** because they transfer general government revenue to specific individuals and households to achieve equity and social welfare goals.

CHECK FOR UNDERSTANDING 9.1

- 1 **Recall** the two main instruments (parts) of a government budget.
- 2 **Compare** and contrast government and household budgets.
- 3 **Identify** which payments in Figure 9.3 would be classified as transfer payments.

ECONOMICS DATA



Navigate to the most recent Commonwealth Budget papers.

- 1 Explore the budget outcomes. **Compare** the key details of this budget to the prior year's budget.
 - a In the most recent budget, were budget outlays greater than receipts (a deficit budget)?
 - b Has the relative importance of any areas of receipts and expenditures changed in the most recent budget? (This can usually be found in 'Budget Paper No. 2: Budget measures'.)
- 2 What trends can you **identify** in the size of receipts and payments as a percentage of GDP over the past ten years? (This can usually be found in an appendix titled 'Historical budget data'.)



Weblink
Commonwealth
Budget

9.2.1 Principles of taxation

Adam Smith first outlined the principles on which all taxes should be based in his famous book *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776). He put forward four basic principles, which are generally still regarded as the basis of a sound taxation system:

- 1 **The principle of equity:** The rich should pay more tax than the poor. Smith stated this as follows:

The subjects of every state ought to contribute towards the support of the government, as nearly as possible in proportion to their respective abilities.

- 2 **The principle of economy in collection:** The cost involved in collecting the tax should be kept as low as possible. A tax that is expensive to collect defeats its purpose, as a high proportion of the revenue collected will be used up in the cost of collection.

- 3 **The quality of certainty:** Those from whom the tax is being collected should be certain of three things – they must know when the tax applies, how much tax must be paid and how the rate of tax is calculated.
- 4 **The quality of convenience:** Both the time and the manner of payment should cause the least possible inconvenience to the taxpayer.

Modern writers sometimes express these principles as **taxation criteria**; that is, ways of judging whether a tax is a good one or not. The principles are then usually summarised as equity, efficiency and simplicity. You can see how these have been adapted from Smith's principles and thus how relevant they still are today.

CHECK FOR UNDERSTANDING 9.2

- 1 Use the data in Figure 9.2 to **calculate** what percentage of total tax receipts come from tax on the income of individuals.
- 2 **a Recall** Adam Smith's four principles of taxation.
b How have these been adapted to become taxation criteria?
- 3 Use Smith's principles of taxation to guide a discussion that **compares** the costs and benefits of the current income taxation system in Australia.

9.2.2 Types of taxes

Each of the main forms of taxation levied by the Commonwealth Government in Australia is briefly described below.

- **Income tax** is collected from individual workers.
 - Most people in Australia receive their principal income from wages or salaries. Under a withholding system known as 'pay as you go' (PAYG), their employer is obliged to deduct the appropriate amount at each pay period and remit it to the Australian Taxation Office. Adjustment for other secondary income – for instance, from interest earned, rent received or capital gains from investments – usually occurs when the individual files an annual tax return. This system is an example of a direct tax because it is paid directly by the individual and cannot be shifted to someone else.



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FIGURE 9.4 Australians prepare their income tax returns each year according to the financial year (1 July to 30 June) to reconcile their income with any tax paid.

- Some individuals – small business owners, partners (including professionals, such as doctors or lawyers) and those whose principal income is derived from investments or property – make their PAYG payments through a quarterly or annual business activity statement (BASs), usually along with net GST payments.
- The rate of income tax increases as income increases (up to 45 per cent in 2024–25): see Figure 9.5.

Income tax is by far the most important type of federal tax.

FIGURE 9.5 Australian income tax brackets: financial year 2024–25

Taxable income	Tax on this income
0–\$18 201	Nil
\$18 201–\$45 000	16c for each \$1 over \$18 200
\$45 001–\$135 000	\$4288 plus 30c for each \$1 over \$45 000
\$135 001–\$190 000	\$31 288 plus 37c for each \$1 over \$135 000
\$190 001 and over	\$51 638 plus 45c for each \$1 over \$190 000

- **Company tax** is levied on company profits at a rate of 30 per cent of their taxable income, except for ‘small or medium business’ companies, which are subject to a reduced tax rate of 25 per cent. The reduced tax rate applies only to those companies that, together with certain ‘connected entities’, fall below the aggregated turnover threshold of \$50 million.
- **Superannuation funds tax** is also paid through the PAYG system, but rates of tax vary depending on a range of factors. Compulsory contributions are taxed at a ‘concessional’ rate of 15 per cent, and at 30 per cent for individuals who earn more than \$250 000.
- **Goods and services tax (GST)** is levied on most goods and services as a fixed percentage of their price (10%). Some items – including most foodstuffs, interest payable, health and education – are specifically exempted. Although GST revenue is passed to the states, it is collected by the Commonwealth Government and appears in federal revenue reporting. This is an example of an indirect tax.
- **Petroleum resource rent tax** is levied on the profits of offshore oil and gas projects and all onshore oil and gas projects.
- **Customs duty** is levied on many imported goods, such as passenger motor vehicles, textiles, clothing and footwear, and items on which excise duty is charged (listed in the following bullet point). In some instances, it is imposed purely to earn revenue for the Commonwealth Government, but more often it is intended to protect Australian producers by increasing the price of imported goods.
- **Excise duty** is levied at relatively high rates on certain types of goods produced or sold in Australia. The three main types of commodity on which this tax falls are alcoholic beverages, tobacco products, and petroleum and other fuels. One reason for choosing these commodities is that they have relatively inelastic demand. Taxation levels (and revenue raised) may therefore have to be quite high before demand is affected.

- **Fringe benefits tax** is paid by employees when the value of certain benefits – such as private use of a company vehicle above \$2000 per annum – are provided to employees instead of increased pay.
- **Other taxes, fees and fines** collected by the Commonwealth Government include small amounts (relative to total revenue) from motor vehicles, gambling, agricultural taxes, broadcasting licence fees, aviation and navigation charges, and fines of various types.

The structure of Australia's tax receipts can be compared with the OECD (Organisation for Economic Co-operation and Development) average to highlight key differences: see Figure 9.6. Relative to the OECD average, the tax structure in Australia is characterised by:

- substantially higher revenues from taxes on personal income, profits and gains, and higher revenues from taxes on corporate income and gains, payroll taxes and taxes on property
- a lower proportion of revenue from GST.

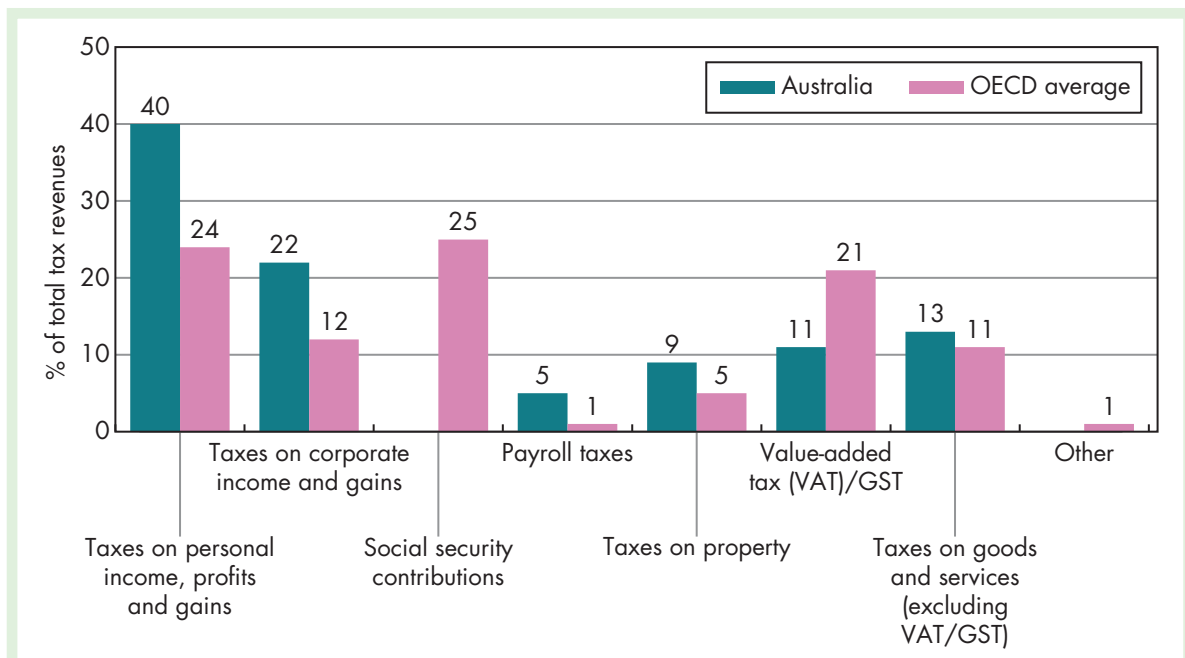


FIGURE 9.6 The tax structure of Australia shows higher revenue from taxes on personal income than the OECD average.

Taxation systems can be proportional, progressive or regressive.

Proportional tax

If we look back to the statement by Adam Smith in Section 9.2.1, we can see that his idea of an equitable tax was a **proportional tax**. He believed it was 'fair' that the amount of tax a person pays should increase at about the same rate as their income increases. This would mean that the amount of tax people pay is a constant proportion of their income.

For example, assume that a certain taxpayer earns \$500 a week and pays \$50 tax. If their wage doubles to \$1000 a week, then under a proportional system of taxation their tax will also double to \$100. In both cases their tax represents a constant proportion (10%) of their income. In Australia, company tax works on a principle very similar to a proportional tax, but with lower rates for small firms.

Progressive tax

Many Australians and most economists would not agree with Adam Smith's proposition that proportional tax is the most equitable form of taxation. They would argue that a **progressive tax** is more equitable. A progressive tax takes an increasing proportion of the taxpayer's wage as their wage rises. For example, assume that a taxpayer earns \$500 per week under a progressive tax system and pays \$50 tax. When their wage doubles to \$1000 a week, their tax might increase to \$200. This means that the proportion of income going to tax has increased from 10 per cent at \$500 a week to 20 per cent at \$1000 a week. Australia's personal income tax is progressive, with rates currently ranging from 0 per cent to 45 per cent. You can check the current tax rates by following the link to the ATO's individual income tax tables. See also Figure 9.5.



Weblink
ATO individual
income tax rates

Regressive tax

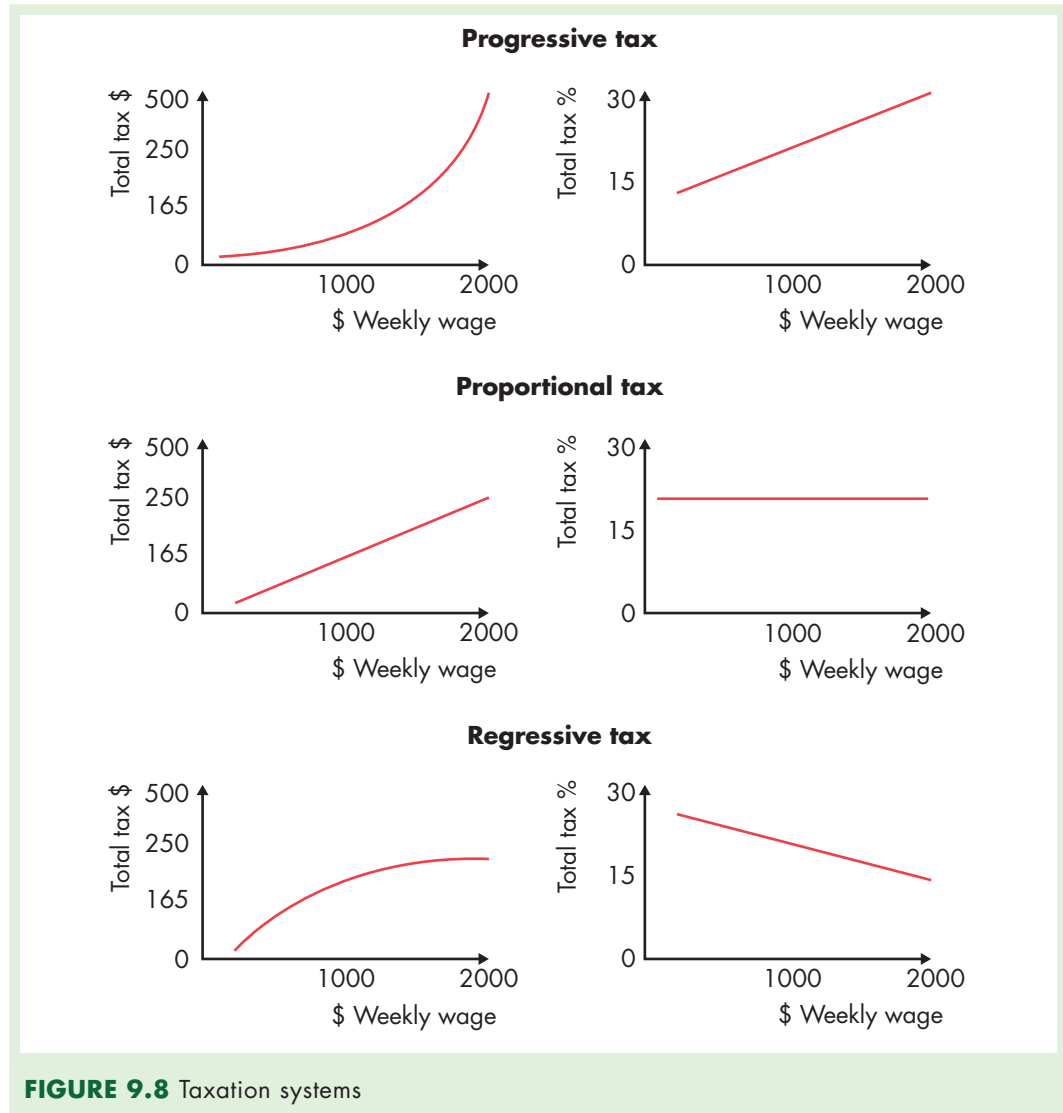
The final type of tax – **regressive tax** – is one about which there is much disagreement. Some say it is the most inequitable. Others argue that it is both fair and necessary in today's economy. A regressive tax takes a decreasing proportion of the taxpayer's wage as their wage rises. Let us consider a taxpayer earning \$500 a week and paying \$50 tax. Under a regressive tax system, when their weekly wage doubles to \$1000, their tax might only increase to \$75. In this case, the proportion of income going to tax has decreased from 10 per cent at \$500 per week to 7.5 per cent at \$1000 week. The GST and excise duty are examples of regressive taxes in Australia. Another example may help explain why. Consider two taxpayers, one earning \$500 a week and the other earning \$1000 a week. They both buy a certain item on which the GST amounts to \$20. To the person earning \$500 a week, this represents a tax of 4 per cent of their weekly wage, but to the person earning \$1000 a week, it represents a tax of only 2 per cent of their weekly wage.



Michele Jackson/Alamy Stock Photo

FIGURE 9.7 Excise duty is an example of regressive tax.

The difference between progressive, proportional and regressive forms of taxation can also be shown graphically, as in Figure 9.8.



9.2.3 Incidence of taxation

When discussing taxes, it is very important to know if the person on whom the tax is levied is the person who ultimately bears the burden of the tax, or whether this burden is shifted onto someone else. The person who does ultimately bear the burden of the tax is the one on whom we say 'the incidence of the tax falls'. If a tax is incident on the person on whom it is levied, it is known as a direct tax. If, on the other hand, a tax is levied on one person and then shifted so that it is incident on a different person, it is known as an indirect tax. This classification of taxes into direct and indirect is very significant in Australia.

Indirect taxation

Australia's main indirect taxes include GST, excise duties and customs duties. In each case, the person on whom the tax is originally levied does not bear the ultimate burden of the tax.

The wholesaler or retailer (GST), manufacturer (excise duty and GST) and importer (customs duty) eventually pass on part, or all, of the tax to the consumer in the form of higher prices. In some cases, this will entail the tax being passed on before it reaches the consumer. This can be clearly seen in the case of excise duty. After being originally levied on the manufacturer, the tax is passed along through the wholesale and retail levels to the consumer.

Indirect taxes are popular with the government for a range of reasons:

- They are convenient and inexpensive to administer.
- They are often hidden from consumers, who may be unaware how much of a good's price goes to the government in tax. The average consumer has only a vague idea of what fraction of the price paid for a commodity is tax.

However, indirect taxes have disadvantages. The most important of these is that they are all forms of regressive taxation and therefore are considered by many people to be inequitable. They have a much greater impact on the poor than on the rich and, in recent times, with the introduction of the GST, have grown as a proportion of total taxation.

Direct taxation

Personal income tax and company tax are the main forms of direct taxation in Australia. Both taxes largely satisfy the criteria for a good tax, which was discussed at 9.2.1. They are thus long-established and relatively acceptable forms of taxation. The Commonwealth Government can adjust the rates of personal income and company tax to stimulate the level of economic activity, or to reduce it.

ECONOMICS CHALLENGE



Indirect taxes

Despite indirect taxes being regressive in nature, the government has often found ways to increase them. For example, the government argues that a GST on almost all goods and services ensures that everyone pays significant amounts of tax, even those who presently avoid larger tax bills through various avoidance or evasion schemes, and that it can satisfy all the criteria for a good tax. To strengthen its argument, the government claims that it can compensate low-income earners who may suffer more, and that most countries have a successfully operating form of GST or value-added tax.

Activity

Select an indirect tax that currently exists in Australia and consider which groups of people pay it. Use appropriate criteria to **evaluate** this tax, giving attention to its effects on both the economy and society.

Effects of taxation

The different forms of taxation levied by the Commonwealth Government affect the economy and the individual in a variety of ways. The first and most obvious purpose of almost all forms of taxation is to raise revenue for the government.

The federal income tax, as well as being a large earner of revenue for the government, is very important as a means of bringing about a redistribution of income in Australia. As we have seen, this is a progressive tax and so more tax is paid by those who earn the highest incomes. Part of the revenue raised in this manner is paid out in benefits and pensions to those who are aged, unemployed or otherwise disadvantaged. This transfer of income from

the 'rich' to the 'poor' brings about a more equitable distribution of the country's income. A significant proportion of Australia's lowest-income earners pay little or no income tax, and receive most of their income from the government in the form of pensions or other forms of welfare benefit. These people are often described as incurring a negative rate of tax.

One very important aspect of any study of income tax is the possible effect the tax may have on the taxpayer's incentive to work. Workers know that any extra income they earn, either by working overtime or by taking a second job, will result in an increase – not only in the amount of tax they pay, but also possibly in the rate at which they pay tax. This may cause them to decide not to take the extra work. Such an effect is unlikely if the overall rate of tax they are paying is low, but as the rate of tax rises (see Figure 9.5 on page 291), so does the risk of a decision of this type.

Progressive tax systems are affected by 'bracket creep', where inflation-driven wage increases push people into higher tax brackets, increasing their tax burden. Governments have not altered the rates sufficiently over the years to ensure that this does not happen. As bracket creep occurs, income tax takes a greater and greater share of people's wages, so that even the average wage earner pays quite high rates of income tax. This fact was used as an additional argument in favour of a GST. With the introduction of GST, it has been possible to lower income tax rates for most taxpayers.

Cartoon by Nicholson from The Australian www.nicholsoncartoons.com.au

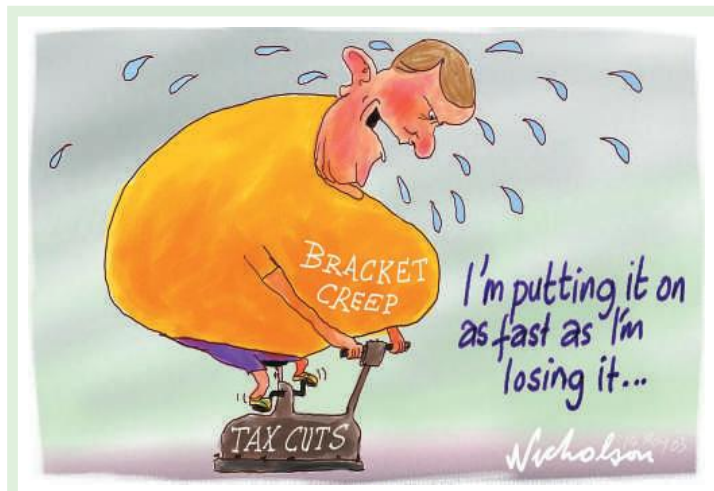


FIGURE 9.9 Income tax bracket creep

All forms of tax have a negative effect on the aggregate level of spending. High rates of income and company tax leave consumers and producers with less money to spend. High rates of indirect tax raise the prices of the goods on which taxes are levied. The overall effect in both cases is a lower level of spending on the part of both firms and individuals. It is then the responsibility of the government to decide what to do with the revenue raised in this way. If it is spent within the domestic economy, the leakage of income to the government sector will be cancelled out by an injection of government spending, so there will be no change in total spending. If this does not occur, then aggregate spending will fall. The government will be guided in its decisions about the levels of both taxation and spending by the state of the economy at the time.

A particularly important aspect of indirect taxes is their effect on the pattern of spending and, therefore, the pattern of production. The effect is evident in the case of 'sin taxes' on alcoholic drinks and tobacco products, in the form of excise duty. Excise duties on alcohol and tobacco are partly intended to reduce consumption by raising prices. Similarly, a substantial

rise in the excise duty on petroleum products helps conserve dwindling reserves and reduces harmful emissions. Taxation has reduced the demand for these products.

Taxes can also be used to encourage domestic production. One of the results of customs duty is to increase the cost of imported goods. This may induce consumers to buy Australian-made goods instead, thereby increasing local production. In a similar manner, a temporary cut in sales tax on motor vehicles has been used in the past to increase sales, which helped the motor vehicle industry and maintained local production and employment, at least in the short term. While there is an economic argument for short-term protection of 'infant industries', this use of taxation is not generally compatible with the optimum use of scarce resources.

CHECK FOR UNDERSTANDING 9.3

- 1 How is income tax collected by the government from wage and salary earners?
- 2 How is income tax collected by the government from people who are self-employed?
- 3 Do you think it is fair that Australians earning \$18 100 per annum pay no income tax? Justify your response.
- 4 **Calculate** the amount of tax that is payable in Australia on the following incomes and what percentage of total income that represents:
 - a \$30 000 per annum
 - b \$65 000 per annum
 - c \$100 000 per annum
 - d \$250 000 per annum.
- 5 **a Distinguish** between progressive, proportional and regressive taxes.
b Give two examples of a regressive tax.
- 6 **Explain** what is meant by the incidence of a tax.
- 7 What is the main disadvantage of indirect taxation as it exists in Australia?
- 8 'Bracket creep' allows governments to increase revenue without increasing taxation rates. What political advantages does this have and what negative effects does it have? Respond in 50–100 words.
- 9 **Create** a short response (250–300 words) to one or more of the following:
 - A justification for charging motorists an excise on fuel is that the revenue helps fund spending on roads. **Analyse** the likely effects of the trend towards electric cars on this revenue stream.
 - Critically **evaluate** the following statement: 'A proportional tax is more equitable than a progressive tax.'
 - 'The GST is a better way to raise government revenue from the household sector of the economy than a direct tax on income.' Use the taxation criteria suggested by Adam Smith to **evaluate** this statement.
 - 'Removing the items that are currently exempt from the GST would make this a simpler, better tax.' Use the taxation criteria suggested by Adam Smith to **evaluate** this statement.

9.3 Other effects of fiscal policy

KEY IDEA

Fiscal policy influences both short-term and long-term economic outcomes, and contributes to achieving a wide range of government objectives.

Our focus has been on the use of fiscal policy to influence the level of economic growth in the short term, but budgetary decisions have wider and longer-term effects. By influencing the level of aggregate demand and impacting the level of economic growth, fiscal policies influence labour market outcomes (level of employment and participation rates), market interest rates, inflation and external stability. In the medium-to-long term, funding allocations (or lack of them) in budgets can influence environmental outcomes, income distribution, debt levels and credit ratings, and population growth and structure. Fiscal policy can have implications for first-home buyers, productivity levels and national defence. It can be used to initiate or support reforms in health, social welfare, education and gender equality. When fiscal policy is used to achieve longer-term goals, it demonstrates the overlap between demand management and the supply-side policies explored in Chapter 11.

Most budgets contain measures that affect how equitable the distribution of national income is. The continuation of a progressive taxation system is the most obvious. Changes to levels of income tax, tax thresholds, expenses that are deductible and the treatment of income of family trusts all affect equity. Any changes to social security eligibility or the level of transfer payments to the unemployed, the disabled, the aged, families or recent immigrants can have a major effect on the disposable income available to these groups of people.

9.4 The effectiveness of fiscal policy

CONCEPTS



Inflation expectations: the opinion that households and firms have of the future rate of inflation, which is then factored into their saving, purchasing and investing decisions; these are heavily influenced by the rates experienced in the past

Inside lag: the time it takes to recognise that the state of the economy indicates the need to use counter-cyclical macroeconomic policy, decide on the appropriate policy response and implement it

Monetary policy: measures implemented through the Reserve Bank of Australia to bring about changes in aggregate demand by influencing money supply and interest rates

Outside lag: the time it takes for the policy measure to have its effect on the targeted economic variables and the level of economic activity

Political constraints: the limitations on government policy actions resulting from the need to tailor policies to win elections, retain popular support, gain passage of revenue and expenditure measures through the Senate, and maintain productive relationships with other nations

Time lag: the period from the time a macroeconomic problem is recognised to the time policy action is taken and has effect

KEY IDEA

Several factors limit how effectively fiscal policy can manage the economy and meet government objectives.

Time lags are an inescapable limitation of the use of macroeconomic policy. The use of fiscal policy is also constrained by implications of the relationship between inflation and unemployment, inflationary expectations and the need to balance competing economic objectives, as well as global influences and political constraints, and the role of consumer and investor sentiment in economic decision making.

9.4.1 Time lags

A practical difficulty with discretionary stabilisation policy is the time it takes to decide upon the appropriate policy, to implement it, and for its full effect to flow through the economy. Economists refer to these time delays as **time lags**, and divide them into ‘inside’ and ‘outside’ time lags. The first three lags listed below are **inside lags** and the last two are **outside lags**. The inside lag for fiscal policy is longer than it is for **monetary policy**, but a major advantage of fiscal policy actions is that they are quite direct and take effect more quickly than monetary and microeconomic policy actions.

- 1 **Recognition lag** is the time it takes to recognise that there is a macroeconomic problem. Policy makers are regularly updated and briefed by experts on a wide range of leading, coincident and lagging indicators of the state of the economy. The Treasury has access to extensive data collected by the Australian Bureau of Statistics, the RBA and the private sector, and analysis of economic trends from these sources and international bodies such as the World Bank, the International Monetary Fund, the OECD and the World Economic Forum. Absorbing the key elements of this constant flow of data and analysis is time-consuming.
- 2 **Decision-making lag** is the time it takes policy makers to process the implications of this information, relate it to government policy objectives and priorities, formulate fiscal policy responses, and win support for them from colleagues.
- 3 **Implementation lag** is the time it takes to design specific spending and revenue bills, gain passage for them through the House of Representatives and the Senate, and make the necessary administrative changes related to these policy decisions. Major changes to fiscal policy usually occur in the May budget, although it is increasingly common for Australian governments to adjust areas of spending or revenue collection after the December MYEFO and to make one-off adjustments to policies in response to economic shocks or in the run-up to an election. Most budgetary decisions pass through a complex process of budget committee meetings. Some proposals are also examined by multi-party parliamentary committees. Before a bill is introduced in parliament, it is typically scrutinised by the relevant government departments and subject to internal consultation.

Treasury forecast → Cabinet budget committee → Department review → Parliament →
Implementation

- 4 **Autonomous expenditure lag** is the time it takes for a fiscal policy measure to cause changes in the components of aggregate demand ($C + I + G + M$). Expenditure changes affect the economy quickly, but tax adjustments – both direct and indirect – take longer to influence economic activity.
- 5 **Induced expenditure lag** is the time it takes for changes in autonomous spending to induce a corresponding effect on the level of aggregate demand (AD) and national income (Y). An income tax cut increases the disposable income of consumers, but it may take some time (depending on recognition of the change and levels of consumer confidence) for this to induce an increase in consumption spending (C). This increased C can then produce a multiplied effect on levels of AD and Y .

The existence of time lags creates the potential for discretionary use of fiscal policy to destabilise the economy. This is shown in Figure 9.10. Suppose the economy is operating at A , in a trough phase. It is at B before the recession is identified. It is at C before an expansionary policy is decided upon, developed and implemented, and it is at D before it takes full effect. The consequence is that this policy change overstimulates the economy and increases the inflationary gap. The problem of time lags is being reduced by improved economic forecasting and a revolution in the communication of economic information to the private and household sectors.

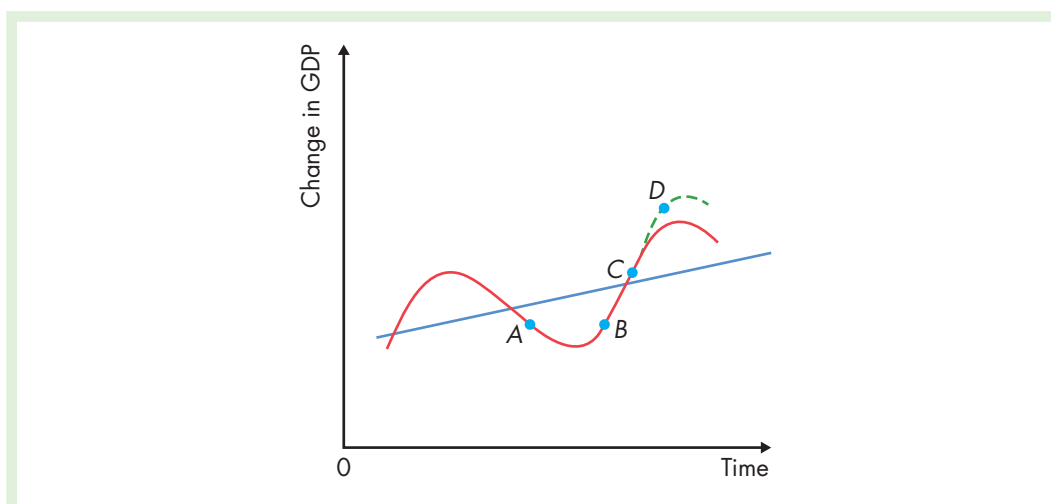


FIGURE 9.10 Time lags as a source of economic instability

Some economists, especially monetarists, argue that the existence of time lags implies that active, discretionary government intervention via fiscal (or monetary) policy is the source of macroeconomic instability. They argue that the market economy is self-correcting and basically stable, and it is government intervention that is the cause of macroeconomic instability.

The Keynesian view (see Chapter 6) is that discretionary fiscal stimulus is necessary to prevent strong cyclical downturns in spending from turning into depressions. John Maynard Keynes proposed budget deficits during contractionary periods, recessions and depressions. Stimulus to investment could be achieved by increased government spending on public works, lowering taxes or redistributing income to lower socioeconomic groups in society, which have a higher propensity for spending on consumption goods. Keynes believed budgets should be balanced over the full economic cycle – advocating for surpluses during booms and inflationary periods.

Keynes was, of course, greatly influenced by the period in which he was writing, and he certainly gave more attention to unemployment than to inflation. But he noted a relationship between unemployment and wage and price inflation, and therefore argued for economic stimulation only during the bottom parts of the economic cycle. He believed strongly, as governments usually do today, that sustained economic growth should be the main goal of government policy.

9.4.2 Inflation expectations

Economic decision makers, such as wage earners, home buyers, borrowers and lenders, will need to take account of the expected inflation rate. Wage earners need to ensure that their wages increase in line with what they expect the inflation rate to be. Otherwise they will suffer a decline in purchasing power (that is, real wages). Investors (including people managing their superannuation) need to factor in likely rates of inflation to determine if their expected real returns (discounted for inflation) are high enough to balance the risks and opportunity costs of proposed investments.

Inflation expectations are built upon past experiences. They are also formed by considering the relevant information that is available. Financial institutions and large businesses can employ economists to analyse such information. While the analysis may be beyond the expertise of the average worker or home buyer, trade unions can employ such experts, and financial media and financial advisers can guide investors. Economists can, therefore, predict what the inflationary outcomes may be from an economic shock or policy change. While economic forecasting is essential for governments and businesses so that they can make decisions concerning their strategies, even the experts vary in their predictions.



iStock.com/VorDa

FIGURE 9.11 Wage earners need to ensure that their wage increases are in line with prices, otherwise they will suffer a decline in purchasing power.

9.4.3 Incompatible economic objectives

The Australian Government's simultaneous goals of achieving internal and external balance and efficient resource allocation are fundamentally compatible; however, the attainment of some objectives may involve a trade-off, at least in the short term. This can complicate the decision-making phase of fiscal policy. Some examples of objectives that may involve the need for trade-offs are:

- economic growth and price stability
- economic growth and improved environmental quality/sustainable economic development

- rapid economic growth and external viability – as growth is often underpinned by imported capital and technology, and usually generates increased demand for imports of consumer goods
- policies to improve the equity of income distribution that can result in a reduction in incentives to work or invest
- incentives for technological innovation that can create structural unemployment
- improvements to the current account through debt reduction that may improve external viability, but divert revenue from other priorities such as increased spending on economically vulnerable sections of the population
- promotion of increased national savings through superannuation that reduces C , T and standard of living, in the short term.

These sorts of incompatibilities confront most areas of government decision making, forcing political decisions to be made about acceptable trade-offs. In the conduct of discretionary fiscal policy, priority is generally given to supporting the maintenance of economic growth at rates around the long-term average. Expansionary fiscal stances are used to counter rising unemployment, and contractionary stances are used to limit rapid growth that threatens price stability. Fiscal decisions have an observable short-to-medium-term focus that privileges improvements in standard of living over environmental sustainability and quality-of-life considerations. While some budget decisions are directed at structural change to the economy, the primary focus is on funding ongoing programs and demand management.

9.4.4 Global influences

The implementation of fiscal policy in a modern, open economy is heavily impacted by global influences. Changes in global and regional economic cycles and the impact on global output and trade are central to the macroeconomic fundamentals of Australia's trade-focused economy. This can cause major non-discretionary effects on government revenue, the rate of growth, labour market conditions and price levels. The COVID-19 pandemic clearly demonstrated how global shocks can affect budget outcomes and fiscal policy settings. Economic 'shocks' quickly spread, resulting in a global economic downturn that was more severe than any experienced since the Great Depression of the 1920s and 1930s. Such 'contagion' is a product of an increasingly integrated global economy.



iStock.com/Fotosipsak

FIGURE 9.12 Economic shocks can spread quickly.

Financial deregulation since the 1980s and the increased dominance of markets by global corporations have greatly increased the mobility of capital flows in the world's financial markets. A change in investor sentiment can cause sudden outflows (or inflows) of capital, which create volatility in the exchange rate of the Australian dollar, with flow-on effects for

the price and level of imports and exports. Globally high levels of net debt have raised the risk of the nation's credit rating being downgraded. This has been reflected in an increased medium-term focus in recent budgets on debt reduction and increasing national savings.

Dependence on inflows of capital and commodity exports and a high level of net debt makes Australia's economy vulnerable to volatility in global commodity and financial markets.

9.4.5 Political constraints

A political party must tailor its policies to win enough votes to form government. This may mean sacrificing elements of an 'ideal' fiscal policy stance or structural details to the whims of popular sentiment. **Political constraints** are an important restriction on contractionary policy stances because they create identifiable groups of people who will be worse off in the short term. Media and the government's parliamentary opponents publicise these costs.

Governments will not always have the political will to make significant reductions in government spending, or the revenue bills may be obstructed by the Senate. Plans to raise taxes or cut spending often face strong opposition, especially from groups that would be negatively affected. This makes it much more difficult for governments to apply a contractionary fiscal policy stance than an expansionary one.

This has caused a short-term focus in fiscal policy, potentially at the expense of policy settings suited to achieving internal and external stability in the medium-to-long term. Recent federal governments cannot be confident of being elected for the two or more terms required to implement longer-term fiscal strategies.

CHECK FOR UNDERSTANDING 9.4

- 1 What determines a budget's impact on the economy?
- 2 Use the following terms to **construct** an equation describing how the fiscal balance is derived (that is, 'fiscal balance ='):
 - total government expenses
 - net capital investment
 - total Commonwealth revenue.
- 3 Is the underlying cash balance or the fiscal balance regarded as the better long-term indicator of a budget outcome? **Explain** why.
- 4 **Recall** the main:
 - a limitations of fiscal policy as a macroeconomic management tool
 - b strengths of fiscal policy as a macroeconomic management tool.
- 5 In extended responses (250–300 words):
 - a **Explain** the monetarist theory that inflation expectations are the key reason that discretionary use of fiscal policy to stimulate aggregate demand with the aim of reducing unemployment will only result in inflation, with no long-term reduction in unemployment.
 - b **Describe** the main limitations global influences have had on the effectiveness of Australian fiscal policy in the past three years.
 - c **Explain** the major political considerations limiting the effectiveness of fiscal policy in the past three years.

R 9.1 Terminology

Select the correct term from the list below that describes each statement.

A Budget	F Fiscal policy
B Transfer payments	G Inside lag
C Indirect tax	H Monetary policy
D Progressive tax	I Taxation criteria
E Political constraints	J Inflation expectations

- 1 Criteria for judging whether a tax is a good tax or not; criteria such as equity, efficiency and simplicity are suggested
- 2 The time it takes to recognise that the state of the economy indicates the need to use counter-cyclical macroeconomic policy, decide on the appropriate policy response and implement it
- 3 A tax system in which the percentage of tax payable increases as income rises
- 4 Payments from government to individuals and households in the form of cash social welfare payments, such as pensions, unemployment benefits, childcare subsidies and family allowances
- 5 A statement of the government's estimated revenue and expenditure for the coming financial year
- 6 The opinion that households and firms have of the future rate of inflation, which is then factored into their saving, purchasing and investing decisions; these are heavily influenced by the rates experienced in the past
- 7 Any tax on aspects of economic activity other than income; for example, goods and services tax, carbon tax or customs duty; these can be passed on to others by the firm on which the tax is levied
- 8 Refers to government decisions about taxation and spending that influence aggregate demand; can be discretionary or non-discretionary (automatic stabilisers)
- 9 Measures implemented through the Reserve Bank of Australia to bring about changes in aggregate demand by influencing money supply and interest rates
- 10 The limitations on government policy actions resulting from the need to tailor policies to win elections, retain popular support, gain passage of revenue and expenditure measures through the Senate, and maintain productive relationships with other nations

R 9.2 Multiple-choice questions

Select the correct response to each of the following:

- 1 The area of greatest federal government expenditure is:
 - A health.
 - B education.
 - C defence.
 - D social security and welfare.
- 2 The largest source of federal government revenue is:
 - A income tax.
 - B sales tax.
 - C company and resource rent taxes.
 - D fuels excise.
- 3 Contractionary, neutral and expansionary are:
 - A the three types of budget outcomes.
 - B the three possible fiscal policy stances.
 - C used to describe both budget outcomes and fiscal policy stances.
 - D not used to describe either budget outcomes or fiscal policy stances.
- 4 The best indicator of a budget's short-term impact is:
 - A the budget outcome.
 - B the underlying cash balance.
 - C the fiscal balance.
 - D the fiscal balance as a percentage of GDP.
- 5 The taxation criteria proposed by Adam Smith, to judge whether a tax is a good tax or not, are:
 - A equity, efficiency and simplicity.
 - B fairness, efficiency and acceptability.
 - C equality, efficiency and acceptability.
 - D simplicity, efficiency and acceptability.
- 6 The time it takes for a fiscal policy measure to cause changes in the components of aggregate demand is known as:
 - A the implementation lag.
 - B the decision-making lag.
 - C the induced expenditure lag.
 - D the autonomous expenditure lag.
- 7 Which of the following types of time lags is an outside lag?
 - A the implementation lag
 - B the decision-making lag
 - C the induced expenditure lag
 - D the recognition lag

Review of Chapter 9

- 8 Which of the following is *not* an accurate statement about fiscal policy?
 - A It can include measures that initiate microeconomic reforms.
 - B Changes in taxation take effect quickly.
 - C The inside lag for fiscal policy is longer than it is for monetary policy.
 - D Changes to government spending begin as soon as the budget is handed down.
- 9 The policy response of the Australian Government to the onset of COVID-19 was:
 - A a discretionary fiscal stimulus.
 - B a discretionary fiscal contraction.
 - C a non-discretionary fiscal stimulus.
 - D a non-discretionary fiscal contraction.
- 10 The idea that active, discretionary government intervention via fiscal (or monetary) policy is the source of macroeconomic instability is associated with:
 - A conservative governments.
 - B monetarist economic theories.
 - C Keynesian economic theories.
 - D Adam Smith.

R 9.3 Short response questions

- 1 **Describe** the main purposes of Commonwealth budgets?
- 2 Is the term 'taxation' an adequate description of government revenue in Australia? **Explain** the reasoning behind your answer.
- 3 What is the difference between a budgetary surplus and a budgetary deficit?
- 4 **Explain** why balancing the budget is more applicable to households than governments.
- 5 **Explain** the difference between a non-discretionary and a discretionary fiscal policy. Use the term 'structural' in this sentence.
- 6 What fiscal policy stances would each of the following indicate?
 - A increasing the level of government revenue
 - B increasing the size of the budgetary surplus
 - C a smaller budget deficit
 - D a budgetary surplus

R 9.4 Inquiries

- 1 The introduction of tax on the use of sugar, especially in carbonated drinks and juices, has been suggested as a response to increasing rates of obesity. Would the benefits of introducing such a 'sin tax' in Australia outweigh the costs and risks?
- 2 Investigate the current Commonwealth Budget:
 - Note the key initiatives contained in it.
 - **Identify** the structural and cyclical factors at work.
 - Discern the intended fiscal policy stance and its macroeconomic cause.

Choose the three most interesting or relevant criteria (to that year) from the following list to **evaluate** the budget's likely effects:

- the level of aggregate demand
- environmental sustainability
- equity of income distribution
- the labour market
- the level of national savings
- resource allocation
- the current account deficit.



10

Economic management: Demand management policies – monetary policy

The Australian Government implements monetary policy to stabilise and support its economic objectives.

Focus questions and inquiries

- What is monetary policy?
- What are the objectives of monetary policy?
- What are the strengths of monetary policy and the key limitations to its effectiveness?
- How effective has the implementation of monetary policy been in achieving the federal government's economic objectives?

This chapter will examine:

- the role of the Reserve Bank of Australia in monetary policy
- how monetary policy targets the rate of inflation
- the relationship between changes in the cash rate, market interest rates and the level of economic activity
- how changes to monetary policy are transmitted through the economy to influence the level of economic activity
- economic conditions that have caused recent monetary policy stances
- the effect these stances have had on the level of aggregate demand
- the effect these stances have had on the achievement of the federal government's economic objectives.

10.1 Introduction to monetary policy

CONCEPTS



Cash rate: the interest rate that banks pay to borrow funds from other banks on overnight loans in the short-term money market

Cash rate target: a level of the cash rate (interbank overnight rate) that the Reserve Bank of Australia specifies as the target it seeks to achieve for transactions in the short-term money market; this rate applies until the next meeting of the Reserve Bank of Australia Board

Interest rates: the cost of borrowing or reward for lending money, expressed as a percentage of the total amount borrowed or loaned

Monetary policy: measures implemented through the Reserve Bank of Australia

to bring about changes in aggregate demand by influencing money supply and interest rates

Monetary policy stance: the (intended) overall effect of the monetary policy setting on the level of economic activity in an economy

Percentage point change: the absolute difference between two percentages, rather than a relative percentage change; for example, if the inflation rate rises from 5 per cent to 7 per cent, the increase is 2 percentage points

Price stability: a state of the economy in which there is little variation in prices; that is, there is low inflation

KEY IDEA

Monetary policy is a macroeconomic tool used by the Reserve Bank of Australia to smooth economic fluctuations and promote objectives such as price stability.

JOHN MAYNARD KEYNES



FIGURE 10.1 John Maynard Keynes (1883–1946)

The application of monetary policy described in this chapter is essentially consistent with the theories of John Maynard Keynes. Keynes is probably the most influential economist of the twentieth century, and his book *The General Theory of Employment, Interest and Money* (1936) is still the basis of the economic policies of most capitalist countries. His theories on the causes and avoidance of depressions took the world by storm. It was a radical break from the traditional theories of the classical economists, and controversy on some points still rages today.

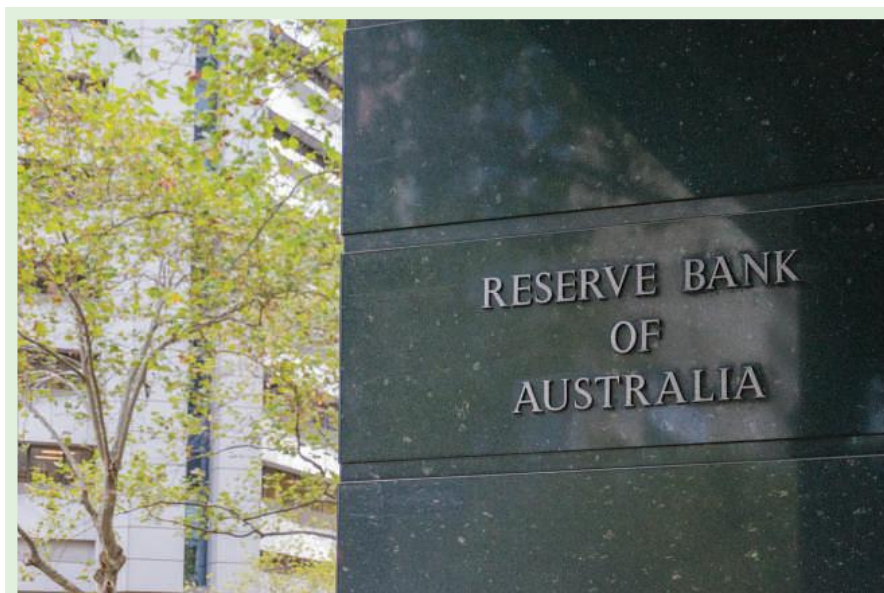
Keynes recognised that even when an economy reaches an equilibrium level of income (where savings equals investment), unemployment can still exist. He saw the levels of consumption and investment as the key elements of aggregate demand and unemployment (or the threat of it) in

Continued

Continued

an economic downturn, creating the conditions for falling consumption and driving aggregate demand down in a spiral that could become a depression. To avoid this, and the alternative situation of excessive demand and overfull employment, he prescribed government interference in the market via fiscal policy to change investment and move aggregate demand to a level that creates full employment, and, to a lesser extent, through using monetary policy to change interest rates to create the appropriate levels of consumption and investment.

Monetary policy involves the Reserve Bank of Australia (RBA) acting on behalf of the government to influence the cost and availability of credit. It is a macroeconomic policy instrument or tool used to influence the level of **interest rates** in Australian financial markets. It responds to fluctuations in the economic cycle and attempts, along with fiscal policy, to smooth out these fluctuations and reduce any negative effects they might have on the economy and employment at the maximum level that is consistent with maintaining low and stable inflation.



iStock.com/Katharina13

FIGURE 10.2 The RBA is Australia's central bank.

The RBA describes monetary policy as: 'The setting of an appropriate level of the **cash rate target** . . . to maintain the rate of inflation in Australia between 2 and 3 per cent per annum' (© Reserve Bank of Australia, 2001–2018. All rights reserved).

While the RBA cannot directly regulate market interest rates, it influences them by targeting the **cash rate**, which is the rate charged on overnight loans between commercial banks: see Figure 10.3. It has a powerful influence on other interest rates, and forms the base on which the structure of interest rates in the economy is built. Any change to the cash rate target takes effect from the day following the announcement.

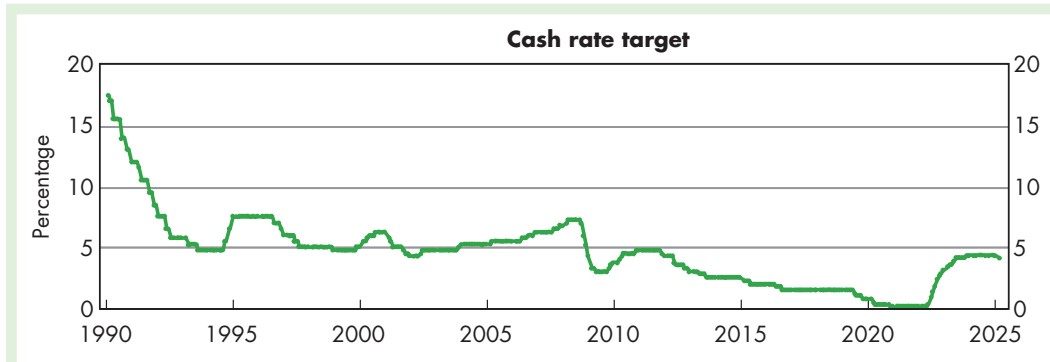


FIGURE 10.3 Over recent decades, the RBA has targeted the cash rate, which is the rate charged on overnight loans between commercial banks.

Source: About Monetary Policy | RBA

To expand economic activity, the RBA will loosen monetary policy, which involves lowering the cash rate to put downward pressure on interest rates. Lower interest rates reduce the cost of mortgage payments, car loans and credit card use; boost consumer spending; and reduce the incentive to save. Businesses are likely to bring forward plans to purchase new capital equipment. This leads to increased aggregate demand and higher economic activity.

Tightening monetary policy by raising the cash rate will put upward pressure on interest rates, reducing consumer spending and business investment. This is designed to cause a reduction in aggregate demand and therefore the level of economic activity.

10.1.1 The role of the RBA

The RBA commenced operations as Australia's central bank in 1960. Its functions and powers are defined in the *Reserve Bank Act 1959* (Cth).

The RBA Board sets interest rates so as to achieve the following objectives in the Reserve Bank Act:

- the stability of the currency of Australia
- the maintenance of full employment in Australia
- the economic prosperity and welfare of the people of Australia.

Since the early 1990s, these objectives have found practical expression in a target for consumer price inflation of 2–3 per cent per annum. Monetary policy aims to achieve this over an appropriate time frame that depends on economic circumstances and, where necessary, balances the RBA Board's objectives with regard to **price stability** and full employment. Controlling inflation preserves the value of money. This is the principal way in which monetary policy can help to form a sound basis for long-term growth in the economy.

The RBA is Australia's primary monetary authority. In addition to conducting monetary policy on behalf of the federal government of the Commonwealth of Australia, the RBA provides banking services to the government and its agencies, overseas central banks and official institutions. It also manages Australia's gold and foreign exchange reserves.

As the only organisation permitted to issue Australian currency, the RBA can print money. This gives it some degree of control over the supply of money in the economy and hence an ability to influence the level of interest rates. The operations of the RBA give it a close relationship with the financial sector, and allow the federal government an indirect influence that can be used to promote its key economic objectives.

10.1.2 Accountability and transparency

The Reserve Bank Act gives the RBA the power to conduct its monetary policy role independently of the government, but it is accountable to the parliament for its actions. Independence is essential to the RBA's effectiveness, giving businesses and consumers confidence that decisions are based on expert analysis rather than political pressure.

The RBA is required by the Act to consult with the government.

In November 2024, a Bill was passed in parliament, making some sweeping changes. This followed a review that recommended making changes in order to have more expertise on the RBA Board with regard to setting rates. The RBA Board will be split in two, with one dedicated to running the RBA and another focused on setting interest rates. The RBA Governor, and some other key personnel, will sit on both boards.

The RBA employs a large and expert staff, including many economists, to research developments in the Australian and global economies. This includes analysing data gathered by the Australian Bureau of Statistics (ABS), government departments (especially the Treasury), the private sector (especially the banks) and the RBA Board's staff, and consulting extensively with businesses throughout the country. RBA staff collate and analyse economic indicators and brief the RBA Board in preparation for its decisions about the future course of monetary policy.

The RBA Board meets eight times a year, following the release of key economic data on inflation and economic activity. The meetings start on a Monday afternoon and conclude the following day. The target cash rate and the reasons for this monetary policy setting are announced at 2.30 pm on that day. You can read the media releases on the RBA's website. The quarterly *Statement on Monetary Policy* provides a more detailed analysis of the state of the economy and financial markets, as well as explaining the **monetary policy stance**.

The transparency of the RBA's work has been enhanced by frequent media releases and presentations to business and university conferences by recent governors and leading RBA staff. In addition, the RBA website gives the public access to extensive statistical data, speeches and research papers by RBA staff. It provides daily updates on the level of exchange rates, details of the cash rate and level of inflation, and announcements and news items relevant to the state of the economy. The RBA Chart Pack provides graphs (updated monthly) that summarise macroeconomic and financial market trends in Australia and developments for our main trading partners.



Weblink
Reserve Bank of Australia

CHECK FOR UNDERSTANDING 10.1

- 1 **Recall** the purpose of monetary policy.
- 2 **Describe** the sweeping changes following the RBA review in November 2024. What did they mean for the RBA Board?
- 3 Are the terms 'cash rate' and 'interest rate' interchangeable? Answer in a short response of 50–100 words.
- 4 There have been calls from politicians, such as President Trump, to strip central banks of their independence. **Explain** why it is important that the RBA remains independent of the Australian Government.
- 5 Who is the RBA directly accountable to?
- 6 How does the RBA demonstrate its transparency and why does this matter? Answer in an extended response of 200–250 words.

ECONOMICS DATA



Familiarise yourself with the website of the RBA and the website of one major commercial bank, and update the economic data listed below:

- 1 current cash rate
- 2 rate of consumer price inflation
- 3 exchange rate of the Australian dollar expressed in terms of the US dollar
- 4 exchange rate of the Australian dollar expressed in terms of the trade-weighted index
- 5 current level of economic growth (GDP)
- 6 interest rate charged on a credit card
- 7 interest rate charged on a home loan (mortgage):
 - a indicator rate – variable
 - b indicator rate – fixed
- 8 interest rate earned on deposits in a savings account
- 9 interest rate earned on deposits in a transaction account
- 10 interest rate charged for a personal loan.

If members of the class access different commercial banks for their responses to items 6–10, an interesting discussion could be had about comparative interest rates and the apparent extent of competition between these banks.



Weblinks
RBA

CBA

NAB

Westpac

ANZ

Suncorp

RACQ

Worksheet
10.1 Economics
Data

10.2 The objectives of monetary policy

CONCEPTS



Headline rate of inflation: the percentage change in prices over time, as measured by the consumer price index; also referred to as the 'consumer inflation rate'

Inflation target: the band of inflation rates that a central bank sets as the target range for its implementation of monetary policy; in Australia, this is 2–3 per cent, on average, over the medium term

Underlying rate of inflation: the headline rate of inflation, excluding one-off or seasonal factors that cause short-term volatility in the prices measured by the headline rate (for example, changes in government taxes, fluctuations in petrol prices or banana prices after a cyclone)

KEY IDEA

The main objectives of the RBA include achieving full employment in the Australian economy and the economic prosperity and welfare of the people of Australia.

10.2.1 Inflation target

The RBA is obliged to apply monetary policy to keep inflation at 2–3 per cent, on average, over the medium term – which is generally taken to mean over the course of an economic cycle. This rate of inflation is low enough to not materially distort economic decisions in the community. This does not mean that inflation cannot be allowed to move outside the target band, especially if short-term factors are identified as the cause of such movements.

The purpose of **inflation targeting** was detailed in the RBA's December 2023 *Statement on the Conduct of Monetary Policy*:

The *Reserve Bank Act 1959* sets out the specific goals for monetary policy. The Reserve Bank Board and Government agree that the goal of economic prosperity and welfare of the Australian people is an overarching objective for monetary policy. The Reserve Bank Board can best fulfil this mandate by conducting monetary policy in a way that will best contribute to both price stability and full employment.

The Reserve Bank Board and the Government agree that a flexible inflation target is the appropriate framework for achieving price stability, recognising the importance of low and stable inflation. They agree that an appropriate goal is consumer price inflation between 2 and 3 per cent. This approach supports the anchoring of inflation expectations, while recognising that all outcomes within the target range are consistent with the Reserve Bank Board's price stability objective. The Reserve Bank Board sets monetary policy such that inflation is expected to return to the midpoint of the target. The appropriate timeframe for this depends on economic circumstances and should, where necessary, balance the price stability and full employment objectives of monetary policy.

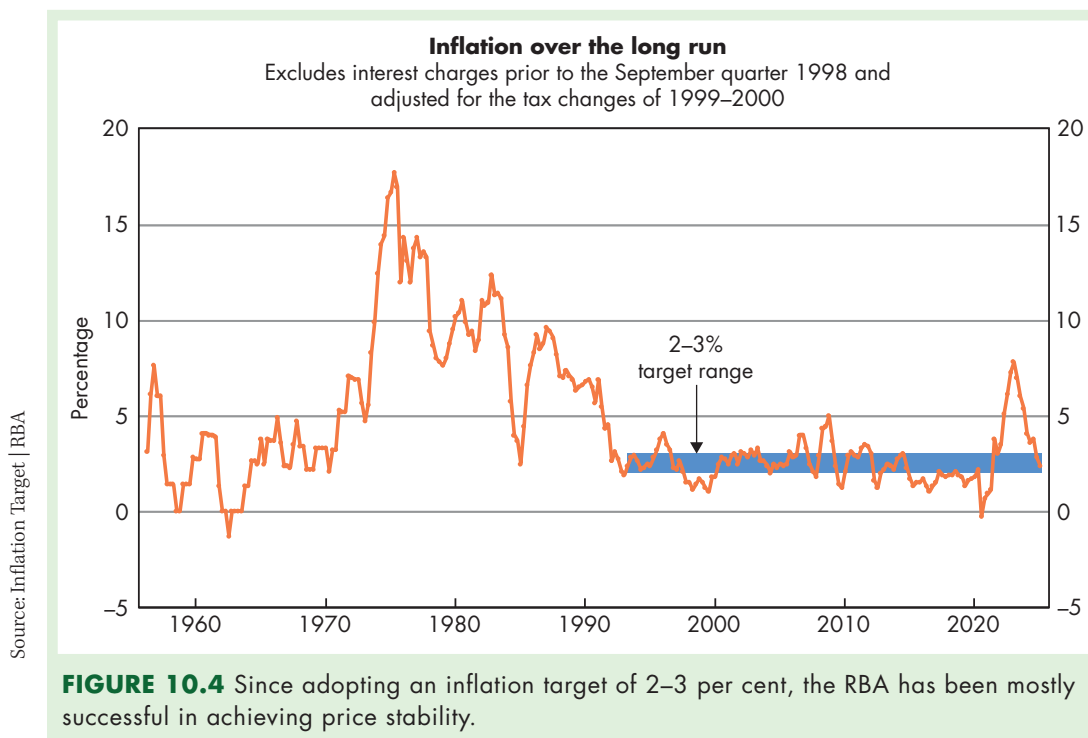
The Government's objective is sustained and inclusive full employment where everyone who wants a job can find one without searching for too long. The Reserve Bank Board and Government agree that the Reserve Bank Board's role within this is to focus on achieving sustained full employment, which is the current maximum level of employment that is consistent with low and stable inflation. The Reserve Bank Board commits to regularly communicating its assessment of how conditions in the labour market stand relative to sustained full employment, drawing on a range of indicators and recognising that full employment is not directly measurable and changes over time.

The Reserve Bank Board commits to clearly communicating how it is balancing its inflation and full employment objectives. More generally, when inflation is expected to be significantly away from the midpoint of its target of between 2 and 3 per cent or labour market conditions are expected to deviate significantly from those consistent with full employment, the Board commits to communicating how long it expects it will be before it again meets each of its objectives and why.

Source: Statement on the Conduct of Monetary Policy – 8 December 2023 | RBA

The use of inflation targeting has become quite common in developed countries, but the target rates vary considerably. Some advantages of inflation targeting are set out below:

- Countries such as Canada and New Zealand, which have had independent central banks operating under inflation targets, have achieved low inflation rates without experiencing significant increases in unemployment.
- Keynesian economic thought holds that monetary policy is better suited to ‘fighting’ inflation than other economic goals and has advantages over contractionary fiscal policy.
- Inflation is directly related to monetary factors.
- Since the 1990s, monetary policy has been more successful than when it was simultaneously focusing on achieving price stability, economic growth and external balance, as seen in Figure 10.4.



10.2.2 Measures of the rate of inflation

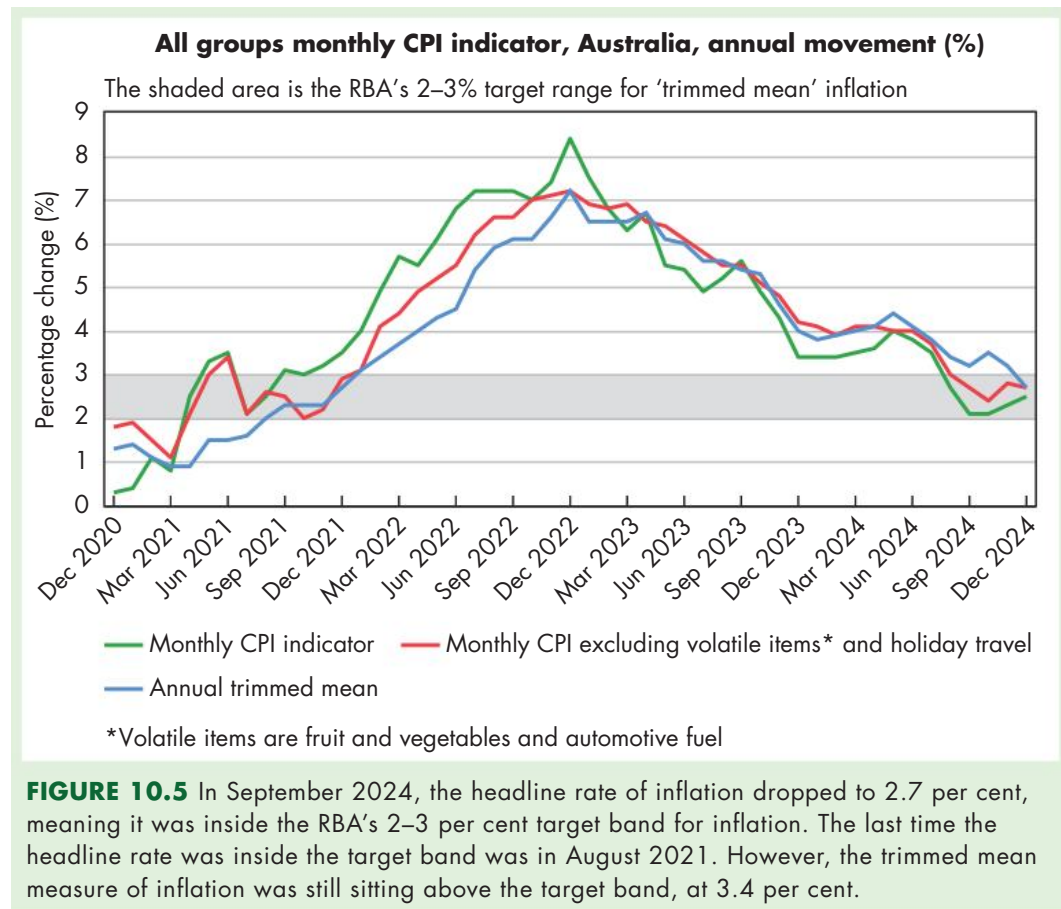
The best-understood measure of price movements is the **headline rate of inflation** measured by the consumer price index (CPI). While this is an adequate indicator of the broad characteristics of inflationary performance over the longer term, it is not an ideal measure over a shorter time frame. Its main limitations are that it is quite volatile due to:

- changes in weather causing sudden changes in the prices of fruit and vegetables
- changes in global oil prices affecting fuel prices in Australia.

The headline rate of inflation is also influenced by factors such as changes in taxes, government charges and interest rates. Although these factors influence living costs, they do not accurately reflect core inflationary pressures.

For monetary policy purposes, there are advantages in focusing on the **underlying rate of inflation** or 'trimmed mean', which removes these volatile items. In August 2024, RBA Governor Michele Bullock commented that the RBA Board would be focusing more intensely on the trimmed mean measure to guide its interest rate decisions.

The headline rate and underlying rate/trimmed mean are the different measures of inflation that are monitored by the RBA.



Source: Australian Bureau of Statistics (January 2025). Monthly Consumer Price Index Indicator, ABS Website, accessed 21 March 2025.

CHECK FOR UNDERSTANDING 10.2

- 1 Does an inflation rate of 2.5 per cent require the RBA to act to stimulate the level of economic activity?
- 2 **Describe**, according to the RBA, the three main purposes of inflation targeting.
- 3 Discuss possible reasons, other than improved measurement of the CPI, for the RBA returning to using the headline rate of inflation as its indicator of whether inflation is within its target range.
- 4 **Describe** the meaning and advantages of a central bank using an inflation target.

ECONOMICS CHALLENGE



The RBA Board considers how other economic variables affect inflation in the short, medium and long term.

Activity

Select one of these economic scenarios and, working in groups, prepare a short presentation for your class which answers the questions that follow:

- strong GDP growth and near full employment
- a major appreciation of the exchange rate
- a period of stagflation
- wages growth that is greater than labour productivity
- a prolonged period of slow wages growth combined with strong growth in profits.

- 1 How might the chosen situation affect inflation?
- 2 What monetary policy stance might the RBA adopt in response (*ceteris paribus*: 'all other things being equal')?
- 3 How effective is monetary policy likely to be in dealing with this scenario?

10.3 The implementation of monetary policy

CONCEPTS



Basis point: one basis point (bp) equals 1/100th of 1 per cent or 0.01 per cent, so 100 basis points (bps) is equal to 1 percentage point; if an interest rate were to increase from 2 per cent to 3 per cent, it is said to have risen by 100 bps or 1 percentage point

Cash rate target: a level of the cash rate (interbank overnight rate) that the Reserve Bank of Australia specifies as the target it seeks to achieve for transactions in the short-term money market; this rate applies until the next meeting of the Reserve Bank of Australia Board

Ease monetary policy: adopt a more expansionary stance by lowering the cash rate to stimulate growth

Exchange Settlement (ES) balances: funds held by financial institutions in their accounts at the Reserve Bank of Australia; these balances are primarily used to settle interbank transactions and help ensure the smooth functioning of Australia's payment system

Interest rate corridor: a system used by the Reserve Bank of Australia to control short-term interest rates, particularly the cash rate, by setting upper and lower boundaries for interbank lending rates

Open market operations: the buying and selling of second-hand government securities by the Reserve Bank of Australia in the short-term money market to implement monetary policy decisions

Short-term money market: the (cash) market that deals in short-term discount securities such as Treasury notes, bank bills and promissory notes; major participants in this market include the Reserve Bank of Australia, banks, superannuation funds, insurance companies, investment trusts, investment banks, building societies and large corporations

Tighten monetary policy: to adopt a more contractionary monetary policy stance; this involves raising the cash rate to initiate a decrease in the level of economic activity

KEY IDEA

There are two instruments available to the RBA for implementing monetary policy: influencing the general level of prices through alterations to the cash rate and changing the money supply through monetary targeting.

10.3.1 Selecting the monetary policy stance

Monetary policy is the primary macroeconomic tool used by the RBA to manage the level of demand and economic growth in the Australian economy. The level of growth in aggregate demand, relative to the level of aggregate supply, is a key determinant of the level of prices in the economy. The RBA determines its monetary policy stance based on its expectations about the level of economic activity in the short-to-medium term. If aggregate demand is expected to exceed supply, upward pressure on inflation is likely.

The following factors help to inform decisions by the RBA Board about the appropriate cash rate:

- the expected level of inflation relative to the target band of 2–3 per cent
- the level of wage growth: wage growth below 3 per cent is likely to anchor inflation below the target rate, as was the case in 2017–18; rises in average wages exceeding 4.5 per cent are usually associated with an inflation rate above 3 per cent
- economic growth rates exceeding 3–4 per cent, which is considered the Australian economy's potential growth rate: these indicate aggregate demand that is exceeding the supply of productive inputs, which is likely to push inflation beyond the target range
- interest rate comparisons with overseas: if Australia's interest rates are below overseas rates, there could be a serious capital outflow that might lead to a depreciation of the Australian dollar; the reverse could happen if domestic interest rates increased to levels that are significantly higher than overseas rates
- developments in international markets, such as changes in oil prices or demand for commodities.

The range of monetary policy stances is the same as was discussed for fiscal policy stances in Chapter 8: expansionary, neutral or contractionary. The range of cash rates that would have a neutral effect varies, depending on many factors – including the recent history of cash rate settings, and consumer and business expectations, or sentiment.

10.3.2 Setting the cash rate

The RBA expresses its monetary policy stance in terms of a target for the cash rate – the interest rate that banks pay to borrow funds from other banks, on an overnight basis, in the **short-term money market**, which is often just called the 'money market'. The cash rate is also known as the 'interbank overnight rate'. It is an important financial benchmark in Australian financial markets as it directly influences interest rates in other wholesale and retail markets, which in turn affect economic activity and inflation.

When the RBA Board decides that a change in monetary policy should occur, it specifies a new **cash rate target**. This is an 'operational' target for the implementation of monetary policy. A decision to **ease monetary policy** (expansionary) is reflected in a lower target for the cash rate, while a decision to **tighten monetary policy** (contractionary) is reflected in a higher target.



FIGURE 10.6 The RBA determines its monetary policy stance based on its expectations about the level of economic activity in the short-to-medium term.

10.3.3 Monetary policy implementation

The RBA implements monetary policy to achieve its objectives, such as stable inflation, sustainable economic growth and full employment. This process centres around managing the cash rate, which, as we have seen, serves as a benchmark for other interest rates in the economy.

Steps in the monetary policy implementation process

1 Economic assessment and decision making:

- The RBA continuously monitors domestic and global economic conditions.
- The RBA Governor recommends a cash rate target to the RBA Board, which meets eight times a year to deliberate and decide.

2 Communication:

- After each board meeting, the RBA announces its decision at 2.30 pm (Sydney time), explaining the reasoning behind any changes to the cash rate.
- Minutes are released two weeks later, ensuring transparency.

3 Adjusting the cash rate: If the cash rate target changes, the RBA relies on its **interest rate corridor** system to influence market behaviour:

- The floor rate is the interest paid on **Exchange Settlement (ES) balances**.
- The ceiling rate is the rate charged for overnight borrowing.

This structure incentivises banks to transact within the corridor, keeping the market cash rate aligned with the RBA's target.

4 Market reactions:

- Financial markets, including the stock and bond markets, respond almost immediately to cash rate changes.
- Commercial banks adjust their lending and deposit rates in line with the RBA's target, affecting borrowing and spending decisions across the economy.

Example of monetary policy implementation

On 7 November 2023, the RBA increased the cash rate by 25 **basis points** from 4.15 per cent to 4.35 per cent. This decision was communicated promptly, and markets quickly adjusted:

- The Australian dollar appreciated.
- Commercial banks updated their rates within minutes.
- Market rates gravitated toward the new cash rate target without the RBA needing to conduct **open market operations**.

Why it matters

This streamlined process allows the RBA to maintain control over short-term interest rates effectively, influencing broader economic activity. By guiding inflation, employment and growth through monetary policy, the RBA helps to ensure the stability and resilience of Australia's economy.



FIGURE 10.7 Effective monetary policy tools influence interest rates and economic stability.

CHECK FOR UNDERSTANDING 10.3

- 1 Briefly **explain** the difference between each of the following pairs:
 - a the RBA and commercial banks
 - b a 10 basis points change and a 10 per cent change in the cash rate
 - c the cash rate and the cash rate target.
- 2 Why is the cash rate also known as the interbank overnight rate?
- 3 Why does the level of the cash rate influence the level of interest rates for loans to consumers?
- 4 What monetary policy stance is associated with each of the following?
 - a a lower cash rate target
 - b higher interest rates for business loans
 - c an economy in which aggregate demand is at historically low levels
 - d an economy in which inflation is above the RBA's 2–3 per cent target range
- 5 **Describe** the actions the RBA would take to tighten monetary policy. At what stage of an economic cycle would it be likely to do this?
- 6 Why will the interest rates at which banks lend to consumers and businesses always be higher than the cash rate?

10.4 The impacts of changes in interest rates

CONCEPTS



Channels of monetary policy

transmission: the different paths through which a central bank's monetary policy decisions are passed on – through financial markets, to businesses and households

Inflation expectations: the opinion that households and firms have of the future rate of inflation, which is then factored into their saving,

purchasing and investing decisions; these are heavily influenced by the rates experienced in the past

Transmission mechanism: the overall process through which changes to monetary policy flow through financial markets, influencing economic activity and inflation via various transmission channels

KEY IDEA

Monetary policy works indirectly to change the level of aggregate demand by influencing short-, medium- and long-term market interest rates.

Monetary policy brings about changes in the economy by influencing the level of aggregate demand. The level of the cash rate has a strong influence over market interest rates, including deposit and lending rates for households and businesses.

Cash rate changes first affect short-term interest rates, and then flow through to influence medium- and long-term rates. This affects the returns to lenders and the costs to borrowers, influencing spending and investment decisions. Changes to these interest rates influence economic behaviour and are transmitted through the economy to affect the level of aggregate demand, the level of employment, wages and the rate of inflation.

The RBA identifies four main **channels of monetary policy transmission:**

1 The savings and investments channel:

- Lower interest rates will encourage spending and borrowing, but discourage saving; the effect on the level of economic growth, employment and inflation is likely to be expansionary, especially in the short term.
- Higher interest rates will encourage saving, but discourage spending and borrowing; this is likely to have a contractionary effect on the level of economic growth, employment and inflation, especially in the short term.

2 The cash flow channel:

- Lower interest rates will increase the cash flows of households, businesses and governments as the cost of servicing debts is reduced; this will encourage spending and borrowing and have an expansionary effect on the level of economic growth, employment and inflation.

- Higher interest rates will decrease the cash flows of households, businesses and governments as the cost of servicing debts is increased; this will discourage spending and borrowing and have a contractionary effect on the level of economic growth, employment and inflation.
- 3 **The asset prices and wealth channel:**
- Lower interest rates will encourage the purchase of assets such as houses, property, shares and bonds; this will increase borrowing and inflate asset prices; there will be an expansionary effect on economic growth, employment and inflation.
 - Higher interest rates will discourage the purchase of such assets, decreasing borrowing and deflating asset prices; there will be a contractionary effect on economic growth, employment and inflation.
- 4 **The exchange rate channel:**
- Lower interest rates will encourage capital outflow and discourage capital inflow, increasing the supply of Australian dollars on foreign exchange markets and reducing demand; the resulting depreciation of the Australian dollar will increase competitiveness – improving the current account deficit, and promoting economic growth and employment.
 - Higher interest rates will encourage capital inflow and discourage capital outflow, increasing the demand for Australian dollars and reducing their supply; the resulting appreciation of the Australian dollar will make exports dearer and imports cheaper, increasing the current account deficit; there will be a contractionary effect on the level of economic growth, employment and inflation.

People's expectations about future rates of inflation also influence the transmission of monetary policy. If workers expect inflation to increase, they will push for larger wage increases to keep up with the anticipated higher living costs, or be motivated to seek higher-paying jobs. Higher wage growth would then contribute to higher inflation. The 2–3 per cent inflation target of the RBA, its transparent operations and its successful record in pursuing this have helped reduce the impact of **inflation expectations**. The recent conduct of Australian monetary policy has increased the confidence of households and businesses in making decisions about saving and investment, because uncertainty about future price levels has been reduced.

10.4.1 The transmission mechanism

KEY IDEA

The transmission mechanism tracks the way a change in the cash rate spreads through the economy to influence the level of economic activity, employment and inflation.

The cash rate serves as a benchmark for the interest rates at which funds are lent or borrowed in financial markets. This affects the funding costs of financial institutions, influencing the lending and deposit rates that businesses and households face.

↓ ↓ cash rate → ↓ interest rates

↑ ↑ cash rate → ↑ interest rates

The process by which a change to the cash rate in the short-term money market spreads through the economy to influence the level of economic activity, employment and inflation is complex. This **transmission mechanism** can be simplified into two stages:

- 1 Changes to the cash rate affect other interest rates in the economy.
- 2 Changes in these interest rates affect economic activity and inflation.

The first stage of the transmission mechanism concerns the extent to which a change in the cash rate is passed through the financial system to households and businesses. As noted above, the level of the cash rate and market interest rates are closely related in Australia, but this is not the only factor determining borrowing costs and the interest rates available for saving and investment.

How quickly changes in the cash rate are passed on to businesses and households depends on whether loans and deposits have variable or fixed interest rates. Loans and deposits with variable interest rates respond very quickly, whereas fixed-rate loans are not affected by a change in the cash rate. The interest rate on most loans responds quickly to changes in the cash rate, because variable-rate loans account for around four-fifths of housing loans and roughly two-thirds of business loans in Australia (adapted from T. Atkin and G. La Cava, 'The Transmission of Monetary Policy: How Does It Work?', *RBA Bulletin*, September 2017).



iStock.com/Douglas Cliff

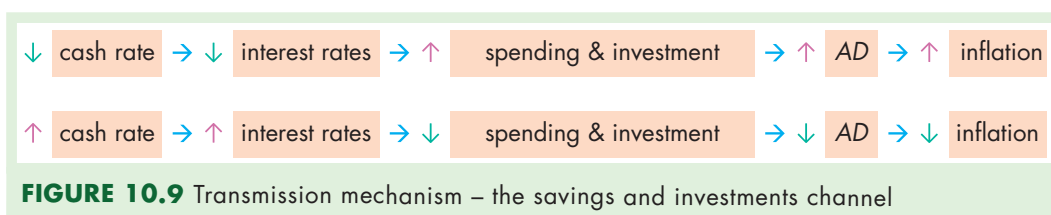
Loan type	Principal and interest reference rate	Principal and interest rates p.a.	
		Annual percentage rate	Comparison rate
Complete			
Standard variable rate	Standard variable rate	5.13%	5.89%
1 Year Fixed Rate	1 Year Fixed Rate	6.24%	8.43%
2 Year Fixed Rate	2 Year Fixed Rate	6.14%	8.18%
3 Year Fixed Rate	3 Year Fixed Rate	5.89%	7.89%
4 Year Fixed Rate	4 Year Fixed Rate	6.29%	7.83%
5 Year Fixed Rate	5 Year Fixed Rate	6.69%	7.84%

FIGURE 10.8 Variable-rate home loans account for around four-fifths of housing loans; such loans respond very quickly to changes in the cash rate.

In the second stage of the transmission mechanism, changes to interest rates resulting from an adjustment to the cash rate spread through the economy via a range of different channels. The effect of changes in interest rates on the level of economic activity are different for different channels, but the links between economic activity and inflation are basically the same for all the channels.

When the RBA lowers the cash rate, this causes other interest rates in the economy to fall. Lower interest rates stimulate spending. Businesses respond to this by increasing how much they produce, leading to an increase in economic activity and employment. If the increase in demand is strong enough, it can push up prices and lead to higher inflation.

Any change in interest rates changes the incentives for households to save or consume and businesses to invest: see Figure 10.9. A fall in interest rates reduces the incentives for households to save and can encourage them to borrow. There is an incentive for households to bring forward spending plans, particularly for durable goods, such as dwellings, vehicles and household appliances. Lower interest rates are associated with higher household consumption and housing investment. This creates an increase in aggregate demand (relative to supply that is relatively fixed in the short term) leading to demand-pull inflation.



The cheaper cost of credit encourages businesses to borrow and increase their spending on investment (in capital assets such as new equipment or buildings). As interest rates fall, the cost of borrowing declines, leading to higher expected returns on investment projects. This can help to justify going ahead with these projects. Overall, lower interest rates should be associated with an increase in business investment, but the increased demand may put upward pressure on prices.

Economists also refer to this as the ‘inter-temporal substitution’ channel, as households and businesses decide to spend now rather than in the future. Although it is a key channel of monetary transmission in many modern macroeconomic models, there is mixed evidence as to whether a strong relationship between lower interest rates and higher consumption growth exists. The experiences of the Australian economy during COVID-19 suggest that even record low cash rates may not be able to stimulate an increase in consumption. Other considerations – such as the desire to pay down high household debt levels and lack of confidence about the security of employment – may have more powerful effects on consumer spending decisions. There is some evidence that housing investment and business investment in machinery and equipment are more sensitive to changes in monetary policy than consumption expenditure.

An increase or decrease in interest rates changes the competitiveness of investment in Australian assets compared to economies with lower or higher interest rates: see Figure 10.10. A reduction in the cash rate, leading to a decrease in relative interest rates, makes the returns on Australian assets lower than those available in other countries. This will cause a shift in the inflow of investment funds, resulting in lower demand for the Australian dollar and downward pressure on the exchange rate. A possible outflow of investment will also occur as existing investment is redirected to foreign assets, increasing the supply of the Australian dollar on foreign exchange markets. These changes in supply and demand for the Australian dollar are why a lower cash rate is associated with a depreciation

in the exchange rate. This makes the export and import sectors more competitive, as exports become cheaper compared to those produced by overseas competitors, and imports become more expensive compared to locally produced substitutes. The import effect will be weaker because imports of cars, electronics, computers and many other goods no longer have domestic competition. The rise in export volumes, and some reduction in both import volumes and prices, increases aggregate demand in Australia and stimulates employment, and in the medium-to-longer term results in an increase in aggregate supply. There should also be a positive effect on the current account balance (*ceteris paribus*).

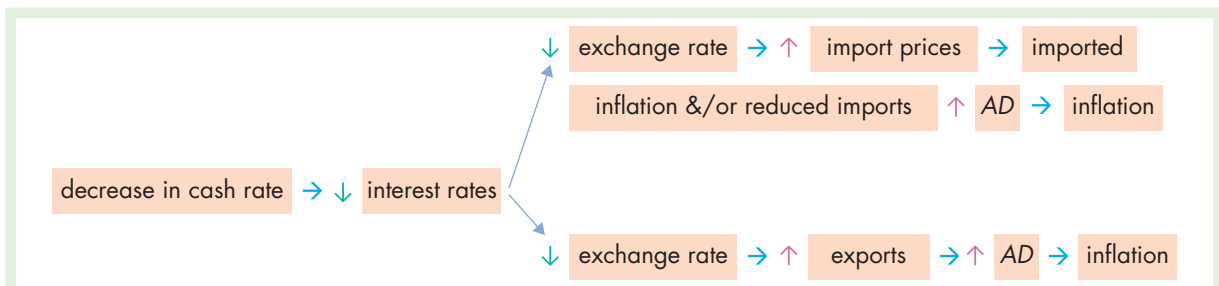


FIGURE 10.10 Transmission mechanism – the exchange rate channel

Higher import prices following a depreciation of the Australian dollar will have a direct effect on inflation. Price rises from those imports, for which an Australian-made substitute is not available, will increase the inflation rate. This extends beyond consumer goods to imported capital and intermediate goods. Producers reliant on imported capital or intermediate goods may pass on the increase in production costs, increasing retail prices, which will fuel inflation. A reduction in the cash rate is usually associated with higher imported inflation.

ECONOMICS CHALLENGE



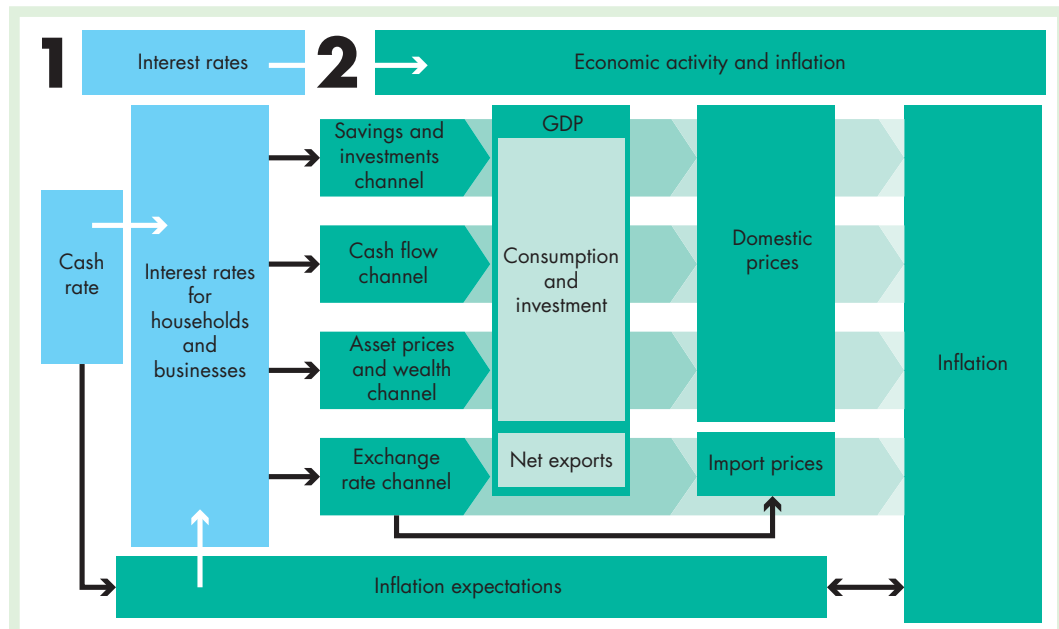
Activities

- 1 Individually or in small groups, develop a hypothesis about one of the following topics:
 - a the key links in the transmission mechanism for one or more of the channels not covered in detail in this text; that is, the cash flow channel, or the asset prices and wealth channel
 - b the role of expectations in the transmission of cash rate changes to the level of economic activity.
- 2 Summarise your thinking in a written response of 150–250 words.

Hints

- 1 The cash flow channel for borrowers (those with more variable-rate debt than deposits) works in the opposite direction from its effect on lenders (those with more variable-rate deposits than debt).
- 2 Expectations about future levels of inflation should be considered, as well as household and business expectations about the direction and size of future levels of interest rates.

The RBA produces the multi-channel transmission mechanism graphic, which steps through the two stages of how interest rates impact economic activity and inflation: see Figure 10.11.



Source: © Reserve Bank of Australia, 2001–2018. All rights reserved.

FIGURE 10.11 Transmission mechanism – multi-channel

CHECK FOR UNDERSTANDING 10.4

- 1 **Recall** the four main channels of monetary policy transmission.
- 2 **Distinguish** between wealth and income.
- 3 What are inflation expectations, how are they formed and why are they important to the effectiveness of monetary policy?
- 4 Draw transmission mechanisms ($\uparrow$ cash rate $\rightarrow \dots \rightarrow \dots$) to illustrate how:
 - a a decrease in the cash rate is transmitted through the savings and investment channel to influence the level of aggregate demand and inflation
 - b an increase in the cash rate is transmitted through the exchange rate channel to influence the level of aggregate demand and inflation.
- 5 What effect are lower interest rates likely to have on the level of consumption expenditure? **Explain** in 50–100 words, using the term 'inter-temporal substitution channel' in your response.
- 6 What effect are higher interest rates in Australia likely to have on the level of investment in the economy by Australian firms and the flow of funds from overseas investors? **Explain** the reasons for each effect in one response of 100–200 words.

10.5 The current monetary policy stance

KEY IDEA

The monetary policy stance taken by the RBA Board may be expansionary, contractionary or neutral.

The RBA expresses its monetary policy stance in terms of a target for the cash rate. The stance describes the intended effect on the level of economic activity, as indicated by the level of aggregate demand in the economy. The stance may aim to expand activity (expansionary), reduce it (contractionary), or maintain the current level (neutral).

Setting the cash rate at a neutral level means that the RBA Board considers that rate to be the correct level to bring about full employment and stable inflation over the medium term. Any cash rate below the neutral level indicates that monetary policy is exerting an expansionary influence on the economy. A cash rate above the neutral rate is attempting to cause aggregate demand to contract.

Source: Cash rate target – the key monetary policy decision, © Reserve Bank of Australia. CC BY 4.0.

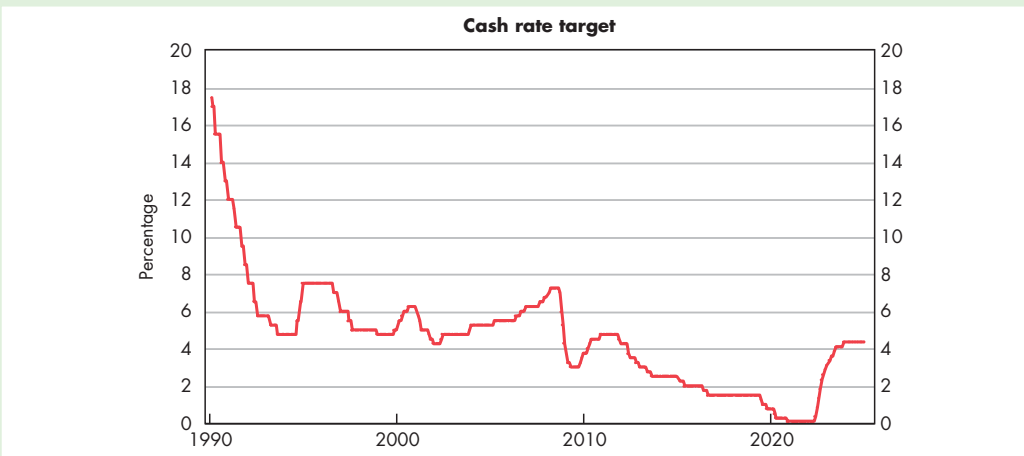


FIGURE 10.12 Australian cash rate settings since 1990

ECONOMICS DATA



- 1 Use the RBA website to investigate cash rate settings over the past two years (using either the RBA Chart Pack or the monthly RBA media releases), including the target rate announced after the last meeting of the RBA Board.
- 2 Record the cash rate target for the past 12 months in a table.



Weblinks
RBA Chart Pack

RBA media
releases

ECONOMICS CHALLENGE



Activities



Weblink
RBA media
releases

Worksheet
101 Economics
Challenge

- 1 Use the RBA website to locate the latest media release explaining the cash rate target set by the RBA Board, then use it to help you answer the following questions.
 - a What cash rate target was set?
 - b **Compare** this to the previous cash rate setting.
 - c What is the main point that the media release makes about each of the following?
 - i the level of global economic activity (look for details of GDP, commodity prices, level of inflation, unemployment rates and financial conditions)
 - ii recent trends in investment and household consumption and investment in Australia
 - iii labour market conditions in Australia
 - d What expectations does the RBA Board have for each of the following?
 - i the level of economic growth in Australia
 - ii the level of inflation
 - iii the level of employment and wages
 - iv the level of the Australian dollar
- 2 Use the RBA website to locate the latest (quarterly) *Statement on Monetary Policy*.
Analyse the contents of the Overview (you might like to browse the full statement, but there is no need to explore it in detail), then answer the following question in an extended response of 200–250 words, including quotations from the RBA: ‘What is the current monetary policy stance in Australia and why has the RBA adopted this stance?’



Weblink
RBA Statement on
Monetary Policy

10.6 The effectiveness of monetary policy responses

CONCEPTS



Inside lag: the time it takes to recognise that the state of the economy indicates the need to use counter-cyclical macroeconomic policy, decide on the appropriate policy response and implement it

Outside lag: the time it takes for a policy measure to have its effect on the

targeted economic variables and the level of economic activity

Time lag: the period from the time a macroeconomic problem is recognised to the time policy action is taken and has effect

KEY IDEA

Monetary policy is relatively quick to implement due to its short inside lag, though its effects take longer to materialise.

The previous chapter raised questions about the effectiveness of fiscal policy as a means of achieving the federal government’s stabilisation objectives. The concerns with fiscal policy relate to the long time it takes to formulate a budget – balancing competing economic

objectives, the effect of inflationary expectations, global influences, political constraints, the effects of deficit financing and the crowding out of private sector activity.

The concerns with monetary policy share some of the weaknesses of fiscal policy, especially the effect of **time lags** and global influences. The main reservations about the effectiveness of monetary policy relate to the weak links in the transmission mechanism and the time lags caused by these. Global influences constraining the application of monetary policy are centred on exchange rate fluctuations, changes in the global economic cycle, and the effects of mobile international capital flows. Effective and transparent monetary policy reduces the effect of inflationary expectations, and the RBA's relative freedom from political considerations is perhaps monetary policy's greatest advantage over fiscal policy.

10.6.1 The effectiveness of economic management

A credible examination of the effectiveness of economic policy needs to involve a comparison of the economic results achieved by a policy with the objectives that the government of the day set for monetary, fiscal and microeconomic policy.

The role of all three areas of economic policy have been quite clearly defined by Australian governments. The focus of microeconomic policy has been on improving the efficiency of economic activity through increases to productivity and improvements to infrastructure, with the aim of making Australian producers more competitive. This area of policy will be explored in Chapter 11. Macroeconomic policy has been focused on achieving internal and external economic stability, while attaining the highest level of economic growth that is sustainable. Monetary policy has become primarily focused on price stability, with an eye to its effects on economic growth, employment and external stability. The objectives of economic growth, full employment and external concerns – especially the current account balance, debt and the level of the exchange rate – have been the core concerns of fiscal policy.

Successful economic management is indicated by Australia's ability to:

- 1 maintain and enhance high material standards of living for most of its residents
- 2 continue to expand its economic footprint in a rapidly changing and increasingly integrated global economy, while remaining competitive and trading profitably.

10.6.2 Limitations of monetary policy

The nature of monetary policy creates two related and unavoidable problems that limit its effectiveness as an instrument to help achieve internal economic stability and enhance Australia's external viability, by fine-tuning the level of economic activity in the Australian economy. These problems are the indirect way that changes in the cash rate are transmitted through the real economy, and the long and variable time lags before a change in interest rate settings takes effect. Monetary policy is relatively quick to implement, but changes in the cash rate take up to six months to begin to effect real economic outcomes, and between one and two years to have their maximum effect on economic activity and inflation; and it may be three years before their full effects are felt in the labour market.



FIGURE 10.13 The effectiveness of economic policy needs to involve a comparison of the economic results.

iStock.com/David Gyung

Indirect transmission mechanism

John Maynard Keynes is credited with proposing that the effect of changes in the money supply on aggregate expenditure occurs via changes in interest rate and investment expenditure. Because the effects are so indirect, Keynes believed monetary policy to be less effective than fiscal policy for stabilisation objectives, particularly in a recession. His point was that reducing interest rates will only induce an increase in consumption spending and business investment when households and firms feel confident that business conditions will improve. Lower interest rates will not induce consumers to borrow if they fear that their employment or hours of work are under threat. They may instead choose to boost their repayment of outstanding debts, such as mortgages, rather than increase their consumption spending. Marginal changes in interest rates will not induce businesses to borrow to expand future production until they see solid evidence that the demand for extra goods exists.

When the RBA changes the cash rate, it influences the interest rates charged on financial products used by households and businesses. However, the RBA does not directly set these market interest rates. Instead, banks and other financial institutions decide how quickly and by how much they will adjust their own rates. Their decisions depend on commercial factors, such as their funding costs and the need to remain competitive and profitable.

The RBA is just one source of funds for banks. Banks also rely on deposits from customers and loans from global money markets, which affect how much flexibility they have. When the RBA increases the cash rate, banks usually pass on the change quickly by raising their interest rates. However, when the RBA lowers the cash rate, banks may delay reducing their rates especially if their own borrowing costs remain high.

While the Treasurer or RBA Governor may publicly encourage banks to follow the RBA's lead, banks are ultimately more influenced by the interests of their shareholders than by government appeals to act in the national interest.

We have also learnt that the link between changes in the money supply and cash rate and changes in the level of economic activity is indirect. Changes to the cash rate setting are transmitted through a variety of different channels, and the time lags between a change in interest rates and a change in economic behaviour will vary between channels. The sensitivity to changes in interest rates (interest rate elasticity) varies between different sectors of the economy. Consumer spending takes some time to react to changes in interest rates, especially for purchases of non-durable items.

Spending on imports is also not highly elastic, partly because much of it is on essential inputs to production. An increasing proportion of consumer spending is on imports bought online, and the price of these goods and services are unaffected by Australian credit costs. However, the volumes of these bought by Australian consumers is likely to be affected by changes in domestic interest rates. Investment spending and housing markets are more sensitive to changes in interest rates, so changes to monetary policy settings work more quickly through these channels.

The effectiveness of monetary policy is compromised by long and variable time lags linked to the indirect way that changes in the cash rate are transmitted through different channels.



FIGURE 10.14 An increasing proportion of consumer spending is on imports bought online, and the price of these goods and services are unaffected by Australian credit costs.

Rawpixel.com/Shutterstock.com

Time lags

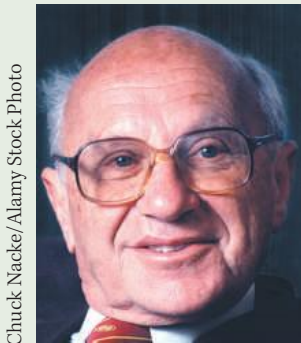
A practical difficulty with discretionary stabilisation policy is the time it takes to decide upon and apply the right policy. The different types of time delays or lags were explored in Chapter 9, and we learnt that the **inside lag** for fiscal policy is longer than it is for monetary policy. The effectiveness of monetary policy as an instrument of macroeconomic management is enhanced by the short inside time lags involved in setting the cash rate and implementing it.

The **outside lag** is the time it takes for a change in the cash rate to affect interest rates and flow through the economy to affect the level of economic activity, inflation, employment, the exchange rate and the balance of payments. As with fiscal policy, the outside lag could be separated into an autonomous expenditure lag (the lag until the components of aggregate demand change) and an induced expenditure lag (the lag until this affects the level of aggregate demand and national income). A cut in interest rates increases the disposable income of consumers, but it may take some time (depending on recognition of the change and levels of consumer confidence) for this to induce an increase in consumption spending. This increased spending can then produce a multiplied effect on levels of aggregate demand and income.

The length of the outside time lag for monetary policy means that the RBA must predict future fluctuations in the economic cycle up to two years ahead, so that its monetary policy settings can be effective in stabilising the anticipated fluctuations.

The existence of time lags creates the potential for discretionary use of monetary policy to destabilise the economy, in the same way that Figure 9.10 on page 300 illustrated an expansionary fiscal policy causing an inflationary gap to develop. Alternatively, an increase in the cash rate may result in a larger-than anticipated downturn in economic activity and cause a deflationary gap to develop.

MILTON FRIEDMAN (1912–2006)



Chuck Nacke/Alamy Stock Photo

FIGURE 10.15

Milton Friedman

Milton Friedman was a Professor of Economics at the University of Chicago and a leading member of the Chicago school of economics (a school of thought founded in the 1930s that promoted free market principles). He received wide publicity for his controversial theories, which are the basis of what is referred to today as the monetarist 'school' of economic thought. He was a laissez-faire economist in the tradition of Adam Smith and Alfred Marshall, and wrote in strong support of the methodology of classical economics. His views were strongly opposed to government intervention in the market. He believed, as did Smith, that the freely operating market would best solve the problems of production and distribution.

Friedman rejected many of the conclusions of Keynes, particularly in the area of fiscal policy. Keynes and the majority of orthodox economists regard changes in the level of taxation and government expenditure as the best methods for influencing business activity. Friedman, on the other hand, believed that though such policies may achieve results in the short term, they would prove ineffectual in the long term. Instead, he advocated control of the money supply as a means of regulating economic activity.

Continued

Continued

Friedman's teaching in this area is a refinement of the quantity theory of money, which in its original form dates back to the work of David Hume, a contemporary of Smith. Friedman argued that studies of economic history – for example, his own *A Monetary History of the United States 1867–1960* (by M. Friedman and A.J. Schwarz, 1963) – established that monetary policy has been the major cause of economic fluctuations. From this, he concluded that the main determinant of the levels of inflation and unemployment is the rate at which the government changes the money supply. Changes in the rate of money supply lead to similar changes in business activity. He therefore saw major fluctuations in economic activity as resulting from the government's failure to provide a stable monetary framework.

Friedman stated clearly that government interference in the market should be limited to open market operations. As active policy measures aimed at controlling fluctuations need some time to take effect, Friedman believed that the government was quite likely to misread the condition of the economy and apply an inappropriate remedy. The government would therefore achieve better long-term results by taking a passive role. This sounds a warning to the central banks of advanced economies about the wisdom of the quantitative easing policies enacted since the Global Financial Crisis and, more recently, during the COVID-19 pandemic.

The appropriate role, according to Friedman, was for central banks to simply maintain a steady increase of 3–5 per cent in the money supply under all economic conditions. This steady rate of increase would, in his view, smooth out economic fluctuations by dampening inflationary tendencies, and at the same time aiding recovery if a recession started to develop.

More details of Friedman and monetarist theories can be found on Nelson MindTap.



Weblink
Milton Friedman and
monetarist theories

Global influences

Global influences constraining the application of monetary policy are centred on fluctuations in international economic cycles, exchange rate movements, the effects of mobile international capital flows, and imported inflation.

Changes in global and regional economic cycles, and the impact of resultant changes in output and trade, are central to the macroeconomic fundamentals of Australia's trade-focused economy. The effects on fiscal policy were noted in Chapters 8 and 9, but they are also a factor, outside of the control of Australian policy makers, that complicate the setting of monetary policy and reduce its impact. Significant fluctuations in the level of the Australian dollar can flow from changes in global markets. Changes in the demand for Australian exports alter the demand for the Australian currency, just as changes in the level or price of imports will alter the supply of Australian dollars available to foreign exchange markets. A change in investor sentiment can cause sudden outflows (or inflows) of capital. These events can create volatility in the exchange rate of the Australian dollar, with flow-on effects for the price and level of imports and exports. This complicates the ability of the RBA to predict future business conditions in the domestic economy and set monetary policy appropriately, given the long outside time lags involved.

Many Australian producers depend on imports of productive inputs and equipment for which locally produced substitutes are not available. Many consumer goods are also imported.

Increases in global inflation levels lead to imported inflation, and the effect of monetary policy to control it is limited. High inflation in global markets also boosts Australian exports, stimulating domestic economic output, which may place inflationary pressure on productive inputs such as labour and raw materials.

Competing objectives

The effectiveness of monetary policy can be limited by a degree of incompatibility between key economic objectives (such as economic growth and price stability). Though more pronounced in fiscal policy, it also affects the design of monetary policy.

The trade-offs involved in pursuing economic growth, while also preserving the quality of the environment, maintaining the amenity people gain from the natural environment and using resources in a sustainable way, complicate the decision-making phase of fiscal policy. Monetary policy has a narrower focus, and these trade-offs are not central to monetary policy decisions.

The objectives of price stability and economic growth are central concerns of monetary policy. While high levels of growth may be incompatible with price stability, the RBA plays a major role in slowing growth in economic activity when it trends towards a level that will create inflation beyond the RBA's target range.

The RBA also uses expansionary monetary policy settings to stimulate the economy when inflation falls to levels that hinder the levels of consumption and investment necessary for a level of economic growth that delivers full employment and improves standards of living. Despite this, a degree of trade-off remains between monetary policy settings that restrain inflation and settings that promote growth and employment.

External viability is not always compatible with the achievement of other key objectives.

The need to balance the range of economic objectives of the government presents an enduring challenge to the setting of monetary policy.

10.6.3 Strengths of monetary policy

Freedom from political constraints

The RBA's relative freedom from political considerations is perhaps monetary policy's greatest advantage over fiscal policy. As an independent government body, the RBA is compelled by the Reserve Bank Act to pursue its inflation target, whether or not that is politically popular or well understood by the electorate. Governments find it especially politically challenging to deliver the contractionary macroeconomic policy stance needed to counter strong economic upturns that threaten the development of inflationary gaps. Increased interest rates create identifiable groups of people who will be worse off in the short term, and there may be high concentrations of those groups in key electorates. The RBA can employ contractionary monetary policy when business conditions demand it, making an independent central bank better suited to the administration of monetary policy than governments needing to maintain their popularity to gain re-election. Central banks can implement policy suited to promoting internal and external stability in the medium-to-long term.

Short inside time lag

The effectiveness of monetary policy, as an instrument of macroeconomic management, is enhanced by the short inside time lags involved in setting the cash rate and implementing it. This needs to be balanced against the ability of fiscal policy to affect economic activity more directly after its long inside lags have played out.

The problem of time lags is being reduced by improved economic forecasting and better understanding of monetary policy by the business and household sector.

Effective and transparent monetary policy

Effective and transparent monetary policy reduces the effect of inflationary expectations. At 10.1.2, the high level of accountability and transparency of the RBA was discussed. This is a strength of the practice of monetary policy in Australia, countering the potential for inflationary expectations to undermine the effectiveness of contractionary monetary policy stances.

Inflation expectations

Inflation expectations have been greatly reduced since the RBA adopted inflation targeting in the early 1990s. Inflation expectations are built upon past experiences. If economic decision makers in the household and business sector expect high rates of inflation, as was the case in Australia in the early 1990s, their decisions will build this into the levels of economic activity and prices; the expectation will help create the reality. This distorts resource allocation, severely reduces the international competitiveness of the economy, and reduces the living standards of those on fixed incomes or in occupations where compensating wage rises are difficult to achieve. When large inflationary gaps develop, the RBA is forced to adopt extremely contractionary monetary settings, such as the 17 per cent cash rate in early 1990. The resulting market interest rates placed many households in severe mortgage stress and discouraged business investment. There is a real danger that these levels of inflation will lead to a severe contraction in economic activity and a period of economic instability. The very low inflation rates following COVID-19 built in an expectation that inflation would remain low, creating a lack of incentive for consumer spending, household saving and expansion of production for domestic consumption.

The RBA's track record in maintaining inflation within the 2–3 per cent target band since the mid-1990s has anchored expectations and enhanced credibility. By anchoring private sector inflation expectations, macroeconomic policy has reduced associated distortions of decision making and increased the effectiveness of Australian monetary policy.

CHECK FOR UNDERSTANDING 10.5

- 1 **Identify** the current cash rate.
- 2 Does this rate indicate a contractionary, neutral or expansionary monetary policy stance?
- 3 **Recall** three types of inside time lags in monetary policy implementation and **distinguish** between them.
- 4 **Distinguish** between inside and outside time lags.
- 5 **Analyse** the effectiveness of monetary policy.
- 6 **Explain** why the RBA must predict future fluctuations in the economic cycle up to two years ahead.
- 7 Why did Milton Friedman make the following recommendations?
 - a Government interference in the market should be limited to open market operations.
 - b Governments should take a passive role rather than apply counter-cyclical monetary policy.

R 10.1 Terminology

Select the correct term from the list below that describes each statement.

A Cash rate	D Basis point	G Transmission mechanism
B Monetary policy	E Cash rate target	H Inflation expectations
C Monetary policy stance	F Tighten monetary policy	
- The overall process through which changes to monetary policy flow through financial markets, influencing economic activity and inflation via various transmission channels
 - A level of the cash rate (interbank overnight rate) that the Reserve Bank of Australia specifies as the target it seeks to achieve for transactions in the short-term money market; this rate applies until the next meeting of the Reserve Bank of Australia Board
 - The (intended) overall effect of the monetary policy setting on the level of economic activity in an economy
 - One of these equals 1/100th of 1 per cent or 0.01 per cent, so 100 of these is equal to 1 percentage point
 - To adopt a more contractionary monetary policy stance; this involves raising the cash rate to initiate a decrease in the level of economic activity
 - The opinion that households and firms have of the future rate of inflation, which is then factored into their saving, purchasing and investing decisions; these are heavily influenced by the rates experienced in the past
 - The interest rate that banks pay to borrow funds from other banks on overnight loans in the short-term money market
 - Measures implemented through the Reserve Bank of Australia to bring about changes in aggregate demand by influencing money supply and interest rates

R 10.2 Multiple-choice questions

Select the correct response to each of the following:

- The cash rate is the interest rate on:
 - loans between banks.
 - loans to commercial banks by the Reserve Bank of Australia.
 - bank deposits held by the Reserve Bank of Australia.
 - mortgage loans to households.
- Which of the following would *not* have an Exchange Settlement account in the interbank market?
 - Commonwealth Bank
 - AAMI
 - Reserve Bank of Australia
 - Colonial Mutual Building Society

Review of Chapter 10

- 3 An easing of monetary policy would involve:
 - A higher interest rates.
 - B a higher cash rate.
 - C the Reserve Bank of Australia buying fewer securities than are demanded in the short-term money market.
 - D an increase in the money supply.
- 4 A contractionary monetary policy stance would:
 - A be appropriate in an economic boom.
 - B help increase employment.
 - C involve a reduction in the cash rate.
 - D reduce levels of foreign investment in Australia.
- 5 Which of the following is an accurate description of the effect of an increase in the cash rate?
 - A Local demand for housing in Australia would fall.
 - B Interest rates would fall, causing an outflow of foreign investment.
 - C Consumer spending would increase.
 - D The level of business investment would increase.
- 6 An expansionary monetary policy stance would:
 - A lead to higher interest rates.
 - B be likely to increase the rate of inflation.
 - C be appropriate for an economy in which GDP was increasing at 3.5 per cent.
 - D be an appropriate response to an unemployment rate of 4.5 per cent.
- 7 Which of the following best describes how an increase in the cash rate affects the economy?
 - A It reduces disposable income for borrowers, lowering consumption.
 - B It encourages business investment by making loans cheaper.
 - C It raises asset prices, increasing consumer wealth.
 - D It discourages saving, leading to higher spending.
- 8 Which of the following would be most likely as a result of an increase in the cash rate?
 - A greater consumption spending
 - B an increase in housing prices
 - C an increase in overseas investment
 - D a depreciation in the exchange rate
- 9 Which of the following would be expected after a decrease in the cash rate?
 - A a decline in business investment
 - B an increase in interest rates
 - C increased demand for consumer durables
 - D a fall in the underlying rate of inflation
- 10 Which of the following statements about deposits in the short-term money market is *not* accurate?
 - A Financial institutions deposit funds by buying short-term government bonds.
 - B They are notes and coins that can be used to meet the consumer transactions at their branches during the next day's trading.

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- C They can only be transferred to other banks, the Reserve Bank of Australia or the government.
 - D Changes to the level of these does not change the supply of cash in the market.
- 11 Which of the following transmission mechanisms is accurate?
- A $\downarrow$ cash rate $\rightarrow$ $\downarrow$ interest rates $\rightarrow$ $\uparrow$ spending and $\uparrow$ investment $\rightarrow$ $\uparrow$ aggregate demand $\rightarrow$ $\downarrow$ inflation
 - B $\uparrow$ cash rate $\rightarrow$ $\uparrow$ interest rates $\rightarrow$ $\uparrow$ spending and $\uparrow$ investment $\rightarrow$ $\uparrow$ aggregate demand $\rightarrow$ $\uparrow$ inflation
 - C $\downarrow$ cash rate $\rightarrow$ $\downarrow$ interest rates $\rightarrow$ $\uparrow$ exchange rate $\rightarrow$ $\uparrow$ import prices $\rightarrow$ imported inflation $\rightarrow$ $\uparrow$ inflation
 - D $\downarrow$ cash rate $\rightarrow$ $\downarrow$ interest rates $\rightarrow$ $\downarrow$ exchange rate $\rightarrow$ $\uparrow$ exports $\rightarrow$ $\uparrow$ aggregate demand $\rightarrow$ $\uparrow$ inflation
- 12 Which of the following channels for transmitting changes in the cash rate to changes in the level of economic activity is also known as the inter-temporal substitution channel?
- A the asset prices and wealth channel
 - B the savings and investment channel
 - C the exchange rate channel
 - D the cash flow channel
- 13 The time it takes for a change in the cash rate to have its effect on the targeted economic variables and the level of economic activity is known as:
- A the outside lag.
 - B the inside lag.
 - C the induced expenditure lag.
 - D the autonomous expenditure lag.

R 10.3 Short response questions

- 1 What is the nature and purpose of monetary policy?
- 2 Accurately **describe** the role of the Reserve Bank of Australia.
- 3 What is the purpose of a monetary policy target and how is the Reserve Bank of Australia's target expressed?
- 4 Why is it important that the Reserve Bank of Australia is seen as independent of the government?
- 5 **Explain** how the Reserve Bank of Australia would act in the money market to tighten monetary policy.
- 6 Why is the transmission mechanism of monetary policy described as indirect?
- 7 When could an increase in the cash rate be considered a neutral monetary policy stance?
- 8 How can inflationary expectations counter a central bank's attempts to combat inflation?
- 9 Why is the inside time lag considered a strength of monetary policy?
- 10 Contrast the level of inflation in Australia in 1990 with 2021. Why are the rates of inflation so different in the two periods?

- 11 Under what circumstances could a reduction in the cash rate be an appropriate monetary policy setting?
- 12 **Explain** how competing government objectives limit the effectiveness of monetary policy. Concentrate on only two to three objectives.
- 13 What time lags most limit the effectiveness of monetary policy?
- 14 Which groups of Australians would have been most negatively affected when the cash rate reached 17–17.5 per cent in the early 1990s?
- 15 Briefly **compare** the main strengths and weaknesses of monetary and fiscal policy.
- 16 Why does an evaluation of the effectiveness of monetary policy need to include an examination of both the economic results achieved by recent settings and the economic objectives the federal government has set for monetary policy?
- 17 **Explain** why John Maynard Keynes believed monetary policy to be less effective than fiscal policy for stabilising the level of economic activity, particularly in a recession.
- 18 What monetary policy role did Milton Friedman suggest for governments and why?
- 19 Summarise the main global and domestic considerations behind the most recent cash rate decision by the Reserve Bank of Australia Board.

R 10.4 Activities

Annotating a Reserve Bank of Australia statement on a cash rate setting

Using the following example from November 2024 as a model, annotate a recent Reserve Bank of Australia media release to **explain** the economic concepts and terminology in it so that it could be understood by someone not familiar with economic theory and language.



Weblink
RBA media
releases

The interest rate that banks pay to borrow funds from other banks on overnight loans in the short-term money market.

A rise in the level of average prices in an economy.

Media Release Statement by the Reserve Bank Board: Monetary Policy Decision © Reserve Bank of Australia, CC BY 4.0.

Number 2025-03

Date: 18 February 2025

At its meeting today, the Board decided to lower the cash rate target to 4.10 per cent and the interest rate paid on Exchange Settlement balances to 4 per cent.

Underlying inflation is moderating.

Inflation has fallen substantially since the peak in 2022, as higher interest rates have been working to bring aggregate demand and supply closer towards balance. In the December quarter underlying inflation was 3.2 per cent, which suggests inflationary pressures are easing a little more quickly than expected. There has also been continued subdued growth in private demand and wage pressures have eased. These factors give the Board more confidence that inflation is moving sustainably towards the midpoint of the 2–3 per cent target range.

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→ The underlying inflation rate removes the effect of short-term volatility in a subset of prices.

However, upside risks remain. Some recent labour market data have been unexpectedly strong, suggesting that the labour market may be somewhat tighter than previously thought. The central forecast for underlying inflation, which is based on the cash rate path implied by financial markets, has been revised up a little over 2026. So, while today's policy decision recognises the welcome progress on inflation, the Board remains cautious on prospects for further policy easing.

The outlook remains uncertain.

Growth in output has been weak, private domestic demand is recovering a little more slowly than earlier expected, and there is uncertainty around the extent to which the recovery in household spending in late 2024 will persist. Wage pressures have eased a little more than expected, housing cost inflation is abating, and businesses in some sectors continue to report that it has been hard to pass on cost increases to final prices.

At the same time, a range of indicators suggest that labour market conditions remain tight and, in fact, tightened a little further in late 2024. Measures of labour underutilisation have declined, and business surveys and liaison suggest that availability of labour is still a constraint for a range of employers. Furthermore, productivity growth has not picked up, which implies that growth in unit labour costs remains high.

There are notable uncertainties about the outlook for domestic economic activity and inflation. The central projection is for growth in household consumption to increase as income growth rises. But there is a risk that any pick-up in consumption is slower than expected, resulting in continued subdued output growth and a sharper deterioration in the labour market than currently projected. Alternatively, labour market outcomes may prove stronger than expected, given the signal from a range of leading indicators.

→ The transmission of monetary policy through to economic activity and inflation takes time. Monetary policy affects the spending and investment of businesses and households with a lag. In turn, those changes in demand take time to have their full effect on the setting of prices and wages.

More broadly, there are uncertainties regarding the lags in the effect of monetary policy and how firms' pricing decisions and wages will respond to the slow growth in the economy and weak productivity outcomes while conditions in the labour market remain tight.

Uncertainty about the outlook abroad also remains significant. Geopolitical and policy uncertainties are pronounced and may themselves bear down on activity in many countries if households and firms delay expenditures pending greater clarity on the outlook. Most central banks have been easing monetary policy as they become more confident that inflation is moving sustainably back towards their respective targets. But market expectations for further easing have moderated somewhat in recent months, particularly in the United States.

← A tight labour market suggests that demand for workers is exceeding the available supply, which is likely to lead to wage rises, increasing costs of production, and productive capacity being limited by an inability to hire suitable numbers and/or quality of employees.

← The value of production (of goods and services) in an economy.

← These risks from outside the financial system have the potential to adversely interact with vulnerabilities in the global financial system, including through damage to digital financial infrastructure and disruptions to global saving and investment flows.

Review of Chapter 10

Sustainably returning inflation to target is the priority.

Sustainably returning inflation to target within a reasonable timeframe remains the Board's highest priority. This is consistent with the RBA's mandate for price stability and full employment. To date, longer term inflation expectations have been consistent with the inflation target and it is important that this remains the case.

The Board's assessment is that monetary policy has been restrictive and will remain so after this reduction in the cash rate. Some of the upside risks to inflation appear to have eased and there are signs that disinflation might be occurring a little more quickly than earlier expected. There are nevertheless risks on both sides.

The forecasts published today suggest that, if monetary policy is eased too much too soon, disinflation could stall, and inflation would settle above the midpoint of the target range. In removing a little of the policy restrictiveness in its decision today, the Board acknowledges that progress has been made but is cautious about the outlook.

The Board will continue to rely upon the data and the evolving assessment of risks to guide its decisions. In doing so, it will pay close attention to developments in the global economy and financial markets, trends in domestic demand, and the outlook for inflation and the labour market. The Board remains resolute in its determination to return inflation to target and will do what is necessary to achieve that outcome.

Economics Data worksheets:

10.1 Economics Data

Economics Challenge worksheets:

10.1 Economics Challenge

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To access resources above, visit
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11

Economic management: Supply side and microeconomic policies

This chapter examines government policy choices on the supply side and how those choices can impact Australia's economic growth.

Focus questions and inquiries

- What are aggregate supply policies?
- How do microeconomic policies influence the aggregate level of supply?
- How are microeconomic and macroeconomic management policies different?
- How have microeconomic policies been used to increase efficiency and boost Australia's rate of economic growth?
- How effective have microeconomic reforms been in achieving the government's economic objectives?

This chapter will examine:

- microeconomic policy and how it is related to the level of aggregate supply
- how the supply side of the circular flow differs from the demand side
- how the production-possibilities and long-run aggregate supply curves are used to illustrate the effect of microeconomic policies
- how microeconomic policy influences the level of economic activity
- the strengths and limitations of supply-side economic reform
- historic microeconomic reforms that have significantly contributed to Australia's economic growth and development.

11.1 Introduction to microeconomic policies

CONCEPTS



Competition policy: policy aimed at making markets more competitive and preventing the abuse of market power

Deregulation: the relaxation or removal of government restrictions on the free operation of markets

Infrastructure: the basic systems and structures that help a society function, such as roads, bridges, power lines and Internet networks

Innovation: the development of a new idea, technology, device, product or method of production

Microeconomics: the study of economic behaviour at the level of the individual units of an economy; it focuses on the factors affecting the decisions made by individuals, firms and governments about the allocation of resources and the prices of goods and services

Productivity: output per unit of input per unit of time

Research and development: investment in technology to increase the capacity of firms through the development of new products, processes and services

Structural change: industry-wide changes in the pattern of production that result in certain products, production processes and even industries disappearing while new ones emerge

Supply-side policies: government initiatives that target individual industries, seeking to improve their competitiveness by improving the efficiency and productivity of producers; these are also referred to as 'microeconomic reform policies'

KEY IDEA

In the long run, an economy will decline unless it responds to structural change, but microeconomic reforms, also known as supply-side policies, can remove barriers to change and promote structural changes that make local industries more productive, efficient and competitive.

11.1.1 The nature and purpose of microeconomic policies

In previous chapters, we have explored demand-side policies. Fiscal policy and monetary policy are demand-side macroeconomic policies; that is, they are directed at the whole economy. For example, a change in interest rates affects everyone in the economy. Through **microeconomic** policy, on the other hand, we can drill down into different sectors, industries or businesses within an economy. For example, we could target the labour market or banks with microeconomic reform. We are trying to change things for producers; hence the terminology **supply-side policies**.

Supply-side policies are government initiatives aimed at driving economic change by improving efficiency at the microeconomic level. These reform policies aim to increase the efficiency of resource allocation and raise **productivity** levels to allow the production of increased output from the supply of productive resources available to Australian producers. This makes Australian industries more internationally competitive and able to produce a greater supply of goods and services and sell them at lower prices, to meet domestic and export demand.

Microeconomic reforms pursue the goals set out in Figure 11.1 by boosting the level of market competition, reducing barriers to production, and creating an environment in which individuals, firms, governments and industries have incentives to innovate and apply the latest technology and production methods. Grants for **research and development** (R&D), taxation incentives and a range of **innovation** initiatives have been used. The resource and product markets in both the private and public sectors have been exposed to increased competitive pressures by **deregulation**, the privatisation of government business enterprises, labour market reform and the application of **competition policy**. Other key elements of Australian microeconomic reforms include increased public and private investment in infrastructure, education and training, and welfare and taxation reform.

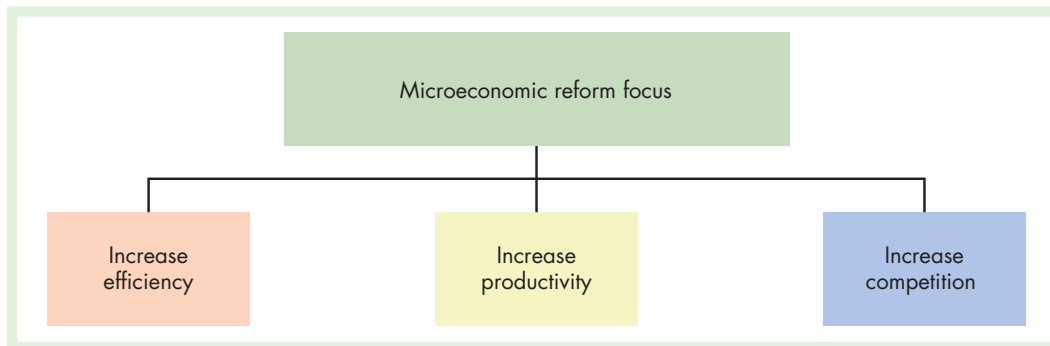


FIGURE 11.1 Microeconomic reform, if designed well, should achieve its focus.

Structural change occurs in an economy over time even if there is no deliberate attempt by government to promote this through microeconomic reform policies. Changes in the pattern of consumer demand and technological changes drive structural change, resulting in the emergence of new products, production processes and industries, and the decline of entire industries.

Structural change can be very disruptive to an economy, workers, firms and governments. Whole occupations can disappear, and even workers who retain their jobs need to acquire new skills and ways of working. Producers may need to develop new products and production processes that require major changes in capital equipment and the mix of capital and labour used. Governments may find that their existing policies are impeding the process of structural change. Existing government regulations and policies relating to the labour market, taxation, industry protection and trade may need to change. An economy that is slow to adapt to structural changes may find that the global market for its exports declines, or that consumer spending shifts to imports that are cheaper, are of better quality or meet their changing tastes.

Without adapting to structural change, an economy will decline over time; however, microeconomic reforms can help remove barriers and support long-term adaptation. Any economy that is slow to adjust will become less competitive and will experience declining economic growth and external viability, and higher debt and unemployment, along with slower income growth and lower living standards.

Even if the Australian Government can achieve its objectives of economic growth, full employment, price stability and external balance in the short-to-medium term by using macroeconomic management policies, microeconomic policies need to be simultaneously employed to promote structural changes that make local industries more productive, efficient and competitive in the long run. Many of Australia's recent economic problems have structural causes that cannot be addressed by adjustments to fiscal and monetary policies.

11.1.2 Main areas of supply-side policy reform

Australian governments have pursued reform of the output or supply side of domestic markets using a wide range of microeconomic policies to complement macroeconomic policy that are primarily focused on managing aggregate demand. These supply-side policies promote reform of product and factor markets, and target both the private and public sectors. The impact of microeconomic reforms is felt in both the tradeable and non-tradeable goods sectors. Some main areas of focus are set out below.

Investment in infrastructure

The efficiency and competitiveness of Australian producers, and the community's wellbeing, depend on the adequacy of the nation's infrastructure.

Infrastructure refers to the essential systems and facilities – such as transport, energy and communications – that support everyday life and production. Infrastructure can be classified as economic (such as telecommunications and transport networks, power supplies and financial institutions) or social (for example, schools, hospitals and public housing), but the categories overlap, especially in the provision of education and training, and law and order. Other examples include the National Broadband Network (NBN) and renewable energy projects, such as wind and solar farms.



iStock.com/FiledIMAGE

FIGURE 11.2 The Bowen Hills interchange in Brisbane is an example of investment in infrastructure.

Investment in education and training

Investment in education and training is essential to deliver a productive workforce that provides a supply of the specialist workers needed for existing and emerging production processes and industries. Initiatives such as the 'Skills for the Future' program and funding for science, technology, engineering and mathematics (STEM) education aim to boost productivity and prepare workers for structural shifts in the economy.

R&D and innovation

R&D and innovation are vital for firms to maintain or increase their competitiveness by developing new products and more efficient production processes, and adjusting to structural changes in local and global markets. Innovations are new ways of doing things and in the economic realm generally refer to the creation of more effective processes, products and ideas. R&D goes beyond innovation; it involves an investment in technology and increases the capacity of firms through the development of new products, processes and services.



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FIGURE 11.3 Genetic engineering is an example of investment in technology.

Deregulation and competition policy

Deregulation and competition policy refer to two related strands of microeconomic policy seeking to increase competition and efficiency in Australian markets.

Deregulation is the removal of government regulations or restrictions, especially in a particular industry, and is often characterised as ‘cutting red tape’.

The National Competition Policy was Australia’s landmark microeconomic reform program in the 1990s. Its aim was the promotion of microeconomic reform to make markets operate more competitively. In November 2024, Australia’s Treasurer, Jim Chalmers, announced an agreement between Commonwealth, state and territory treasurers to deliver a 10-year reform of the National Competition Policy, underpinned by principles that will support and empower consumers, and help to fix the barriers businesses face with regard to moving goods, providing services and finding labour.

The Productivity Commission

The Productivity Commission conducts independent research and provides information and advice to the government on a range of economic, social and environmental issues. It does not implement supply-side policies, but it has become a key part of the nation’s microeconomic reform agenda, providing analysis, research and policy advice. Its work informs decisions on infrastructure planning, regulatory reforms and labour market policies, ensuring evidence-based approaches to boosting productivity.



Labour market reform

Labour market reform has the potential to increase productivity and improve the competitiveness of Australian producers. The labour market is a key factor market for almost all productive activity, and outcomes in this market are directly related to the costs and efficiency of production. Recent initiatives – such as wage subsidies for apprenticeships and changes to workplace agreements – focus on aligning labour supply with industry needs, while safeguarding worker rights.

Taxation reform

Taxation reform is an element of macroeconomic policy with direct relevance to the supply side of the economy. Reform that makes the taxation system more equitable and efficient should strengthen the incentive to participate in the workforce (increasing the available supply of labour) and work longer hours. Measures such as reducing corporate tax rates for small businesses and offering tax deductions for renewable energy investments stimulate growth. These reforms also promote savings and investment, positively affecting the balance of payments and living standards.

Reforms in the human services sector

Reforms in the human services sector are aimed at improving outcomes for users and the wider community. The human services sector covers a diverse range of services, including health, education and community services. The sector plays a vital role in the wellbeing of many of the most vulnerable in the population, but is facing significant challenges. These include increasing demand for services due to the ageing population, the effect of technology, and cost increases associated with new and more complex service provision demands. Reforms are aimed at finding innovative ways to improve the efficiency and cost-effectiveness of the human services sector, and targeting services to those most in need, to help ensure that high-quality service provision is affordable for more Australians and leads to improved outcomes for individuals and the economy. Initiatives include the National Disability Insurance Scheme (NDIS) and increased funding for aged care. These reforms enhance access to essential services, helping to ensure affordability and quality for vulnerable populations.

The floating of the exchange rate

The floating of the Australian dollar in 1983 marked a turning point in Australia's economic history. By allowing the currency to respond to market forces, this reform enhanced the nation's ability to adapt to global economic shifts. This flexibility, coupled with financial deregulation, has fostered innovation in the banking sector and improved capital allocation.

Trade and industry policies

Trade liberalisation has been a key component of Australia's microeconomic reforms, reducing trade barriers and increasing competition in domestic markets. By pursuing free trade agreements and reducing tariffs, Australian producers have accessed larger markets, thereby driving efficiency and export growth. Recent examples include agreements with the UK and the Regional Comprehensive Economic Partnership (RCEP).



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FIGURE 11.4 Pursuing free trade agreements means larger market access for Australian producers.

CHECK FOR UNDERSTANDING 11.1

- 1 At what level of economic activity do supply-side policies work?
- 2 Use the terms 'resource allocation', 'productivity', 'output' and 'efficiency' in a sentence to **explain** the purpose of microeconomic reform policies.
- 3 What is structural change and why is it unavoidable? Answer in a short response of 100–150 words that includes some contemporary examples.
- 4 **Describe** the relationship (cause and effect) between microeconomic policies and structural change.
- 5 What is infrastructure and why is it important to the levels of aggregate supply in the Australian economy and the wellbeing of Australian residents?
- 6 What link is there between future levels of aggregate supply and current levels of education and training?
- 7 **Distinguish** between innovation and R&D.
- 8 **Evaluate** the following statement: 'Reforms in the human services sector are of great importance for equitable social outcomes but have no direct relevance to economic outcomes'.
- 9 **Explain** how successful microeconomic reforms, which increase the productivity of Australian firms and increase aggregate supply, help to:
 - a increase the competitiveness of Australian producers
 - b reduce the current account deficit.

11.1.3 How microeconomic reforms increase output

KEY IDEA

Microeconomic policies focus on measures to reduce business costs by improving efficiency and increasing productivity, so that more goods and services can be produced at lower prices.

The main effect of microeconomic reform is to shift the long-run aggregate supply curve, as shown in Figure 11.5. The initial equilibrium situation is where AD_1 and AS_1 intersect at price P_1 . Following microeconomic reform, the AS curve moves to AS_2 . As firms now have the potential to make a greater profit, they are likely to increase investment in productive capacity, leading to increased demand, and the AD curve shifts to the right at AD_2 . This allows more goods to be produced from the same inputs, shifting the long-run aggregate supply curve to the right. More output is now available at a lower price level.

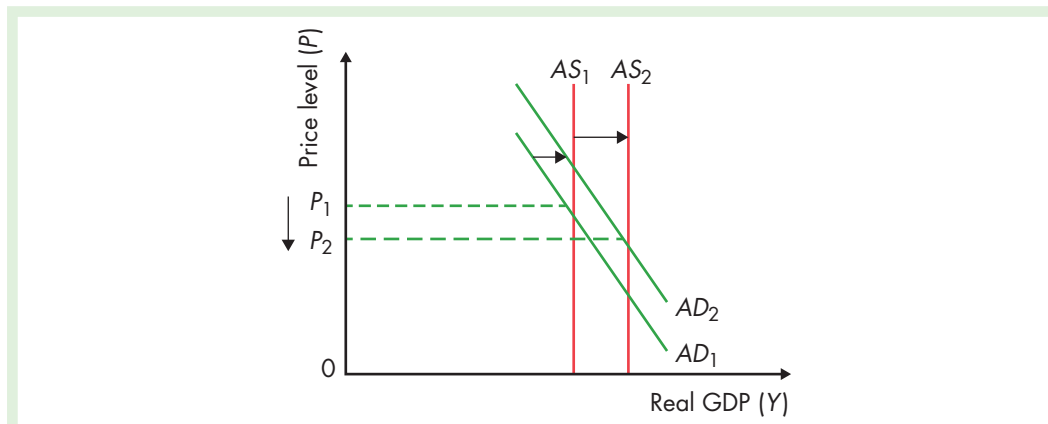


FIGURE 11.5 The long-term effect of microeconomic reform on output and price

If the reforms increase the output at a lower price, firms might be encouraged to increase their level of investment and this will cause the aggregate demand curve to shift to the right.

It is worth noting that improved competitiveness means more than cost and price reductions. A more competitive supply chain is likely to provide better-quality products, respond more quickly to changing consumer tastes, and have improved distribution and customer service. Competition drives firms to increase the efficiency of their production and responsiveness to changes in the markets they supply.

The increase in aggregate supply demonstrated in Figure 11.5 could flow from more efficient use of resources (higher productivity) or the use of more resources (assuming that this boosts economies of scale). The supply of resources in an economy is assumed to be relatively fixed in the short-to-medium term. The production-possibilities model, which you have already encountered in your study of economics, is useful to illustrate how more resources could be available in the short term for the production of a particular product.

11.1.4 How microeconomic reforms encourage the efficient operation of markets

CONCEPTS



Allocative efficiency: where a country's productive resources are used in the economy in combinations that generate the maximum benefits for consumers and the nation

demands by reallocating resources to new industries or production processes

Dynamic efficiency: the ability of an economy to respond to changing consumer

Productive efficiency: the ability of an economy to achieve the maximum quantity of output from a given quantity of productive resources

KEY IDEA

Microeconomic reforms improve allocative, productive and dynamic efficiency by reducing market distortions caused by regulation or weak competition.

You have already learnt the following in Chapter 5 of *Economics for the Real World Units 1 & 2*:

- Efficiency maximises consumer satisfaction and business profits.
- Efficiency promotes economic growth through the more productive use of resources and the development of innovative products and processes.
- Perfectly competitive markets, which have large numbers of buyers competing for goods and services supplied by large numbers of suppliers, will generally be more efficient.

Microeconomic reform and productive efficiency

Productive efficiency is achieved when firms produce in a way that achieves the maximum quantity of output from a given quantity of productive resources, resulting in goods and services being produced at the lowest cost. This will be achieved by producing with the combination of resources that incurs the least cost.



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FIGURE 11.6 Improving productivity is an aim of supply-side policy.

Supply-side policy actions that can boost the productive efficiency of domestic producers include: investment in improved infrastructure; education and training of employees; streamlining of regulations; reducing taxation; and labour market reforms. Trade liberalisation can expose more industries to international competition. Competition policy has the potential to make more markets workably competitive, providing cost savings in producers' supply and distribution chains. Public sector production has particular scope for improved productive efficiency through privatisation and the other types of reforms discussed later in this chapter (see Section 11.2).

Productive efficiency is said to occur on the production-possibilities frontier. This does not guarantee that this production is the most efficient way to allocate those resources, as is illustrated in the example in the 'Economics in action' section on the next page.

Microeconomic reform and dynamic efficiency

Supply-side reforms can help firms improve their **dynamic efficiency** by developing or adopting new, more efficient technology or production processes that reduce costs or meet changing consumer preferences. Increased tax credits for investment in new technologies, improved access to reliable and fast Internet, funding of industry-specific R&D programs, fostering innovation, removal of trade barriers, and reforms that make the labour market more flexible are all likely to help.

Microeconomic reform and allocative efficiency

Supply-side reforms that promote competition help create the conditions for **allocative efficiency**. Less than optimal allocation of resources can occur because a producer has the market power to monopolise the supply of particular productive inputs, or produce intermediate goods that are provided to factor markets at higher than marginal cost. Large firms in uncompetitive markets can develop the brand power to influence consumer preferences so that their product can be sold at prices above the marginal cost of production. Government licensing requirements, tax concessions or subsidies can divert resources to the production of goods and services that do not provide the greatest level of consumer satisfaction and welfare to society.

Increasing productivity is a key goal of microeconomic reforms. Productivity measures the efficiency of labour and capital use, serving as a key indicator of the success of microeconomic reform. Productivity can be measured at four levels:

- 1 labour productivity = $\frac{\text{output}}{\text{hours of labour used}}$
- 2 capital productivity = $\frac{\text{output}}{\text{units of capital input}}$
- 3 multi-factor productivity = $\frac{\text{output}}{\text{units of material, labour and capital input}}$
- 4 total factor productivity = $\frac{\text{output}}{\text{units of all inputs used}}$

In the medium-to-long run, the total quantity of resources available for production can be expanded. An increase in aggregate supply can therefore result from more efficient use of resources (higher productivity) or expansion of the supply of productive resources. A greater supply of productive resources can result from the discovery of new sources, recycling or imports.

ECONOMICS IN ACTION



Although no economy produces only two goods, this model simplifies the economy to highlight important economic relationships. Economists call this the *ceteris paribus* assumption; other relevant factors influencing the use of these productive resources are assumed to be constant.

To achieve the increased aggregate supply shown in Figure 11.5 by increasing the resources available would require diverting available resources from one area of production to another. The production-possibilities curve in Figure 11.7 demonstrates the range of combined outputs that are possible with existing levels of productive resources.

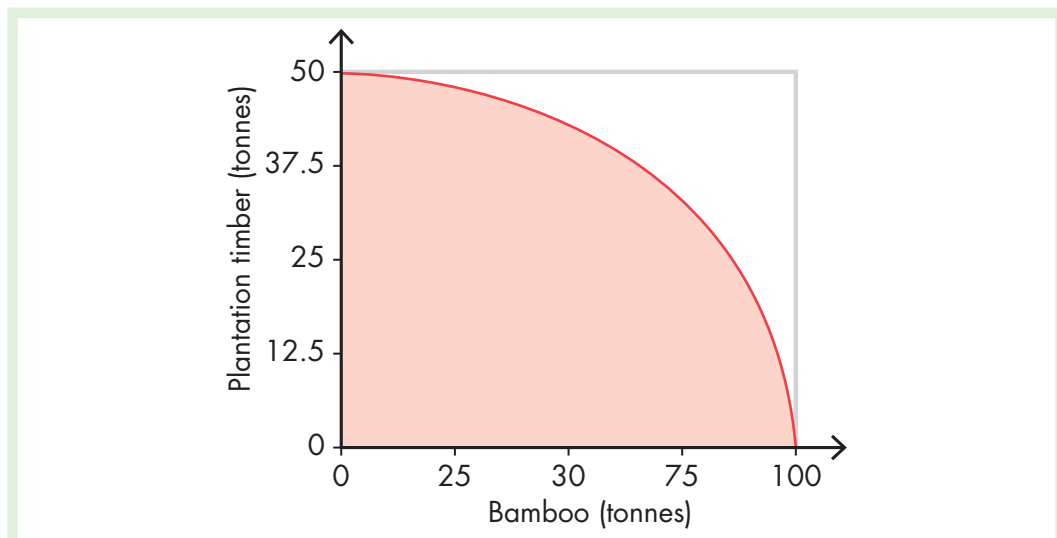


FIGURE 11.7 The production-possibilities curve for plantation timber and bamboo

This economy can produce 50 tonnes of plantation timber if it is willing to accept no production of bamboo. Alternatively, there are the resources available to produce 100 tonnes of bamboo, but the opportunity cost is that no plantation timber will be produced. The production-possibilities frontier indicated by the curve shows a range of possible combinations of the two products. Production of any combination beyond the frontier is not possible with existing resources (in the short term), so production of more bamboo must be at the expense of less plantation timber.

As consumer demand has increased for bamboo products, environmental concerns about the use of timber have reduced demand for products based on this resource. Paper products made from bamboo attract a price premium over those made from wood pulp. Bamboo kitchen utensils – such as serving spoons, chopsticks, bowls and cutting boards – have perceived advantages in durability and environmental ‘friendliness’ compared to substitute products made from wood. Bamboo can also be used to make clothing items that are durable, biodegradable, cool, light and soft. Change in consumer tastes, reflected in the quantity demanded and prices, gives an economic incentive to shift productive resources from the production of plantation timber to bamboo.

Responses to changes in market demand such as this illustrate how a series of responses at the firm and industry level can create an increase in aggregate supply, such as the one demonstrated in Figure 11.5. Dynamically efficient firms will respond more quickly to

Continued

Continued

structural changes in the economy, creating products that meet changes in demand, and will develop competitive advantages that expand their domestic market share and ability to operate in dynamic global markets. Resource supply will shift to their most profitable uses because the suppliers of productive resources in factor markets will sell to the manufacturers that are able to pay the highest price for the productive resources.

Deliberate microeconomic reforms can support the output gains illustrated in the bamboo example, the more efficient use of resources that entails, and the increase in aggregate supply that follows. Removal of the 'hidden' subsidies to the production of plantation timber and reduced access to forest timbers that are on land owned by state and Commonwealth governments would make bamboo production more competitive. Research grants might allow the development of more efficient ways to grow, harvest and process bamboo, and potentially identify that it can be grown on more marginal soils or in a wider range of climates than plantation timber.

CHECK FOR UNDERSTANDING 11.2

- 1 Why are most microeconomic reforms referred to as supply-side policies?
- 2 What effect does successful microeconomic policy action have on the following?
 - a the aggregate supply curve
 - b the level of real GDP
 - c the level of prices
- 3 How does increased productive efficiency achieve each of the following?
 - a maximise consumer satisfaction
 - b maximise business profits
 - c promote economic growth
 - d improve resource allocation
- 4 Why do economists assume that the closer markets are to (the model of) perfect competition, the more efficient they will be at meeting the needs of buyers and sellers of the product?
- 5 **Recall** four benefits of developing a more efficient supply chain, in addition to the effects mentioned in Question 3.
- 6 How can allocative efficiency be increased by supply-side reforms?
- 7 What does productivity measure?
- 8 **Distinguish** between 'productivity' and 'multi-factor productivity'.
- 9 In the example comparing the possible production levels of timber and bamboo (see Figure 11.7), what level of production of timber and bamboo would you (as an economic adviser) recommend? Justify your choice in a written response of 50–100 words.

11.2 The relationship between microeconomic reform and domestic macroeconomic objectives

CONCEPTS



Intergenerational equity: the just sharing of economic benefits and costs between present and future generations

Optimum population: the ideal population for a nation or economy, judged by consideration of characteristics including population size, structure (age, gender, ethnic and cultural makeup, fertility and mortality rates), education, training and geographic distribution

Quality of life: the overall wellbeing of individuals according to their material living standards and a range of other considerations, such as health standards, education levels and happiness

Standard of living: a measure of lifestyle standards based on material and quantitative indicators, such as possessions, income, and education, health and housing standards

KEY IDEA

Microeconomic policies that increase the efficiency, productivity and competitiveness of Australian producers directly contribute to the achievement of both short-run and long-run macroeconomic goals.

The ultimate aim of economic management is to maintain economic prosperity and increase the population's **standard of living**. Governments in market-based economies have limited ability to influence the outcomes of economic activity to achieve this goal. By timely and well-directed use of the macro- and microeconomic policy tools available to them, governments can do much to help an economy increase living standards and the wellbeing of their citizens. In an ideal world, macro- and microeconomic policies would work in a closely coordinated fashion to manage demand in the short term, while building the supply side of the economy to enable the nation's resources to be allocated in a way that provides higher output in the future, to sustain a higher standard of living and **quality of life** for future generations.

As you learnt in Chapter 7, the aim of macroeconomic management is to reduce short-term fluctuations in the economic cycle to allow output, as measured by real GDP, to grow over the medium-to-long term at the fastest rate that is sustainable. This is consistent with the specific macroeconomic objectives of Australian governments: to achieve external and internal stability. The key prerequisite for internal stability, in the short-to-medium term, is a level of economic growth that achieves full employment while maintaining price stability. This contributes to the achievement of external stability. Macroeconomic policy is focused on the demand side of markets.

11.2.1 Central focus of microeconomic policies

The central focus of microeconomic policies is the efficient allocation and use of the productive resources. These policies focus on the supply side of markets, and involve measures that aim to increase competition and reduce business costs by improving efficiency and increasing productivity. Successful supply-side reforms lead to more goods and services being produced at lower prices. This makes Australian producers more competitive and directly contributes to the achievement of both short-run and long-run macroeconomic goals.

11.2.2 Microeconomic reforms and economic growth

Microeconomic reforms boost economic growth by increasing output. Competition for productive inputs allows natural resources, labour, enterprise and capital to flow to the industries and producers that can most efficiently employ these inputs. The ability to produce more from the existing resources allows firms to lower their prices, helping to boost sales volumes. This places downward pressure on prices, helping achieve the goal of price stability. This also makes exports more competitively priced, potentially reducing the current account deficit and foreign debt, and therefore contributing to external stability.



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FIGURE 11.8 Competition allows productive inputs such as labour to flow to the industries and producers that can most efficiently employ these inputs.

11.2.3 Microeconomic reforms and living standards

Australian governments also aspire to some less clearly defined economic goals that are central to improving living standards in the medium-to-long term. Perhaps the most important are building an 'optimum' population, achieving equitable distribution of the income and wealth generated by economic activity, and developing environmentally sustainable methods and levels of production. These goals may not always seem compatible with the central short-term goals of growth, price stability, full employment and external viability. Without attention to long-term goals, economic management may be judged by future generations as short-sighted and unsustainable.

The goal of all economic systems is to maximise people's standard of living, but, as we observed at 7.2.5, there is often a lack of clarity in understanding what 'standard of living' involves. Economists, and most social scientists, understand standard of living to have both quantitative and qualitative dimensions. The goal of economic systems might be better expressed as the sustainable improvement of the population's wellbeing.



The existence of poverty in Australia and the high percentage of national income that flows to the top quintile of income earners provide clear evidence that there is an uneven distribution of income and wealth. It is a widely held belief that a significant number of citizens do not enjoy or receive a 'fair' share of the benefits of economic growth. Inequalities in wealth and income tend also to be reflected in unequal levels of attainment of the other aspects of the standard of living and indicators of wellbeing. People living in poverty are likely to have lower levels of health and educational achievement. They have limited access to many of the economic and social opportunities and lifestyle choices available

to others. Despite substantial social welfare spending by Australian governments, economic disadvantage tends to be intergenerational, resulting in higher rates of incarceration and other forms of institutionalisation. Economic disadvantage correlates with lower life expectancy.

Intergenerational inequity also has a dimension that is independent of the distribution of income. Environmentally unsustainable development enables current living standards to be maintained at the expense of future generations. Economic growth, and the living standards it generates, is achieved by leaving future generations with a depleted stock of productive resources, especially non-renewable resources, and an environment that will be polluted, has reduced biodiversity and is unable to deliver past levels of amenity. High levels of debt – especially government debt – that are not repaid during the peak of economic cycles are also inherited by the next generation. Weaknesses in supply-side policies pass to future generations an economy that lacks the infrastructure and human resources to raise, or even maintain, the level of economic output and quality of life available to previous generations. Concerns about **intergenerational equity** have become a key feature of critiques of Australian economic performance in this century.



Optimal economic outcomes are unlikely to be achieved without the population of a nation being optimal, but there is a lack of consensus on what is meant by the term **optimum population**. The ideal population for an economy will be the one that can produce the highest quantity of output per capita, of the best-quality goods and services, in a sustainable way, while maximising the quality of life enjoyed by all members of that population. Discussions of population policy have failed to reach any consensus on what criteria should be used to decide the characteristics of a population that could deliver this ideal outcome.

The size of the population is vitally important as there may be too few people to use the available resources efficiently and fully. Conversely, there may be too many people, leading to depletion of resources, congestion, conflict, environmental degradation and poor quality of life. Further, the ideal population for a nation or economy needs to contain an ideal age structure, gender balance, and mix of ethnic and cultural groups. Fertility and mortality rates are also important, as are levels of education and training. Furthermore, the geographic distribution of the population will have important consequences for the ability of the economy to exploit productive resources and deliver public goods and services, and for social interaction and quality of people's lives. Achieving and maintaining an optimum population would be heavily dependent on microeconomic policies.

11.2.4 Relationship between supply-side and demand-side policies

The relationship between supply-side and demand-side policies can be complex. The allocation of resources to their most productive uses, and development of efficient domestic producers that are globally competitive, are fundamental to achieving the macroeconomic goals of Australian governments. Unless previous supply-side policies have created the infrastructure and market structures required, the economic output will fall short of the economy's potential level. Macroeconomic policies may still be able to effectively manage the effects of fluctuations in the global, regional and local economic cycles, but employment levels and living standards will fall short of the levels the population aspires to. Many of the microeconomic reforms needed to promote the structural changes that help Australian producers and markets remain dynamically efficient and globally competitive require governments to allocate funds in budgets.

Macroeconomic and microeconomic policies are generally interdependent. While the focus of macroeconomics is on the demand side of markets and microeconomics is on the supply side, successful economic management involves them being closely coordinated.

CHECK FOR UNDERSTANDING 11.3

- 1 **Recall** the major difference between a person's 'standard of living' and their 'quality of life'.
- 2 In Section 11.2, the text states: 'In an ideal world, macro- and microeconomic policies would work in a closely coordinated fashion' to manage the economy so that the government's economic objectives are achieved. Answer the following questions using a fully labelled diagram of supply and demand curves, accompanied by economic notation showing transmission of policy actions; for example:

$$\text{budgetary surplus } (T > G) \rightarrow \downarrow AD \rightarrow AD < AS \rightarrow \downarrow \text{demand-pull inflation} \rightarrow \uparrow \text{price stability.}$$
 - a How does macroeconomic policy influence the level of GDP, the rate of unemployment and prices?
 - b How does microeconomic policy influence the level of GDP and the rates of unemployment and inflation?
 - c Why do macro- and microeconomic policies need to work in a coordinated fashion?
- 3 What is another word for equity? Why is improving the equity of economic outcomes a goal of governments?
- 4 **Identify** the two main ways in which intergenerational inequity is being created in the Australian economy, and propose ways in which supply-side policies could be used to reduce this economic problem.
- 5 Create a 'recipe' for an optimum population – this will explicitly state what characteristics an optimum population would have. A way to make this task more challenging and interesting is to specify the quantity of each ingredient.
- 6 **Explain** in a paragraph of 200–250 words how an economy benefits from a population that is optimal.

ECONOMICS CHALLENGE



Australia currently faces some problems that cannot be addressed by adjustments to fiscal and monetary policies because they have structural causes.

Activity

- 1 Brainstorm what economic problems the Australian economy is currently facing. Write a list of these.
- 2 **Analyse** your list and decide which problems meet the above criteria; that is, they are caused by structural, not cyclical, factors.
- 3 Choose one such problem and analyse what supply-side policy actions would most usefully address this economic issue. (The class might divide the list between individuals or groups to complete Parts 3 and 4.)
- 4 **Explain** the problem, including why it is a structural/supply-side issue, and recommend microeconomic reforms to address it. This might be done in any medium, but if the response is written, it should be 200–250 words in length.

11.3 The significance of microeconomic policy to Australia's economic growth and development

CONCEPTS



Aggregate supply (AS): the level of total production or output that producers plan to supply at various price levels

Competition policy: policy aimed at making markets more competitive and preventing the abuse of market power

Contestability theory: the idea that the removal of barriers preventing new firms from entering, or threatening to enter, a market would make markets more contestable and therefore competitive

Deregulation: the relaxation or removal of government restrictions on the free operation of markets

Government business enterprise: a business owned and operated by the government that provides goods or services to the public while aiming to make a profit; examples in Australia include Australia Post and NBN Co

Privatisation: the total or partial sale of a government business enterprise

Regulatory failure: the idea that government regulation of markets is ineffective due to the costs involved in administration and compliance, regulatory capture, rent-seeking behaviour by firms, wastage of resources, higher consumer prices, and lack of competition and innovation

KEY IDEA

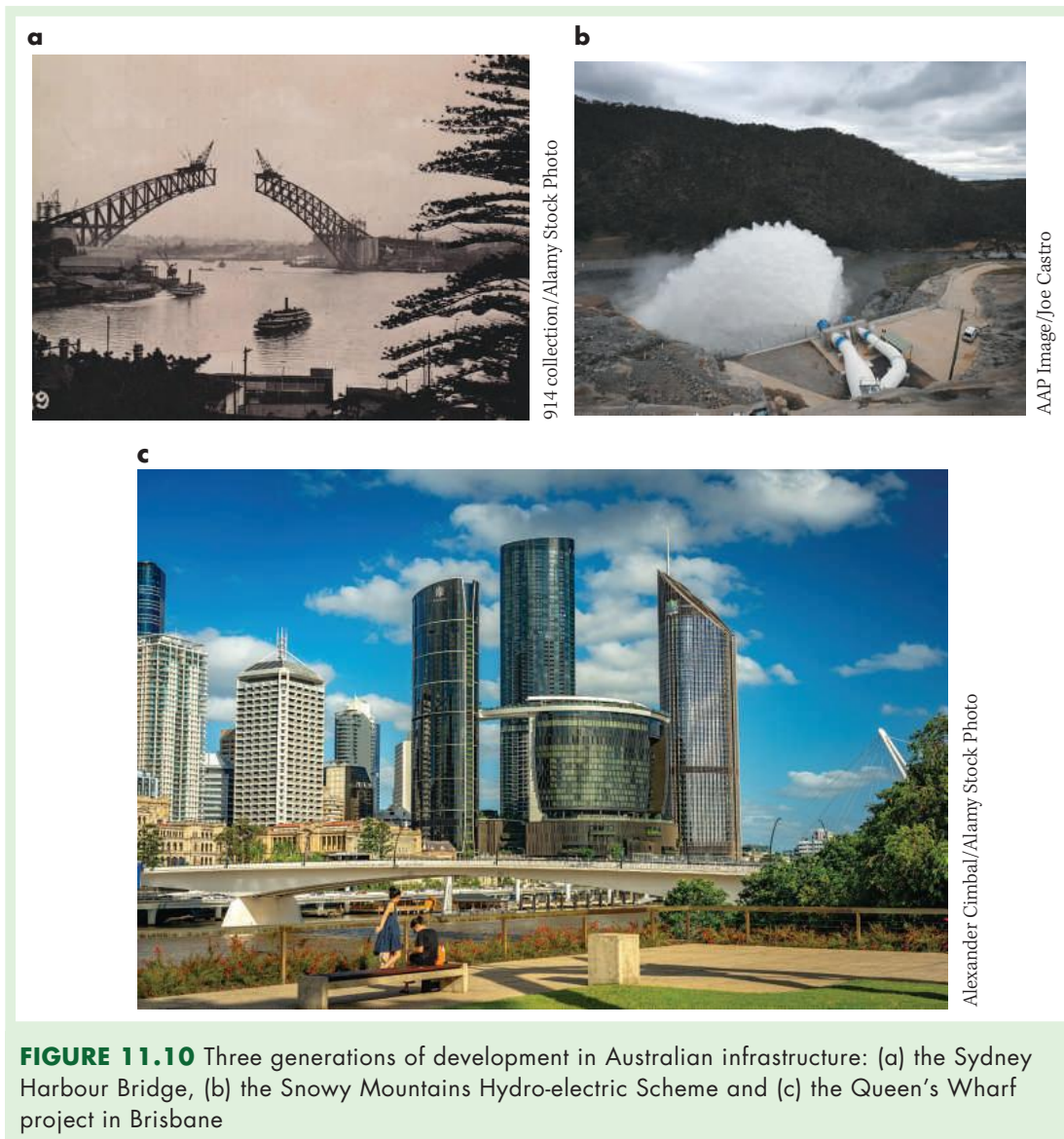
Microeconomic policy is central to the development of the Australian economy's capacity to grow over time – allowing the Australian business sector to expand and become increasingly competitive, and the household sector to enjoy increasing standards of living and wellbeing.



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FIGURE 11.9 R&D is an important area of expenditure.

Section 11.1 explored the direct relationship between microeconomic reform policies, the efficiency of resource allocation, productivity levels and output. **Aggregate supply** policies determine the capacity of an economy to expand its output of goods and services, and improve the efficiency with which it uses its productive resources. This area of economic policy plays a key role in enabling domestic producers to grow and in improving household living standards over time. The extent of economic development, and the rates of economic growth that can be sustained in the long run, are largely determined by the nature of reforms to government regulations, the level and composition of government and private sector expenditures, and taxation policies. Infrastructure, education and training, innovation and R&D are the most important areas of expenditure.



Innovation and expenditure on education, training and research produce similar economic benefits to infrastructure development. Structural reform of markets, the removal or streamlining of government regulation of economic activity, and the **privatisation**, corporatisation and commercialisation of some **government business enterprises** (GBEs, also called 'public trading enterprises') has generally improved resource allocation, increased competition and boosted productivity. The functioning of labour markets has been enhanced by strong industrial laws administered by state industrial tribunals and the Commonwealth Court of Conciliation and Arbitration (1904–56) and its successors. This has played a key role in minimising the costs of industrial conflict and brought greater equity to the determination of working conditions and minimum wage levels than could be expected from purely market-driven processes. A major drawback of centralised wage-setting is its lack of flexibility compared to market-based systems at the firm and workplace level. Progressive taxation and the allocation of significant funds to social welfare programs have helped build social cohesion and compensated for the failure of the market economy to provide equitable outcomes.

Prior to the 1980s, microeconomic policies played a lesser role in economic management by Australian governments than macroeconomic policies. The Hawke and Keating governments (1983–96) ushered in an era of policy reform that changed the structure of the economy through microeconomic reforms that are still regarded as some of the most effective and important reforms in shaping a modern Australian economy. The commitment to supply-side policy reforms and the pace of government-directed structural change have lagged in recent decades.

There have been major structural changes in the Australian economy since the 1980s. Some of these were induced by changes in government policy, but developments in technology and market forces were responsible for much of the change.

The focus of this chapter is the contribution of government supply-side reforms to efficiency, competitiveness and structural change. However, several social and market-driven changes provide essential context for these policies, including the following:

- **Technological advancements:** New technologies, including robotics, artificial intelligence (AI) and especially information and communications technology (ICT), continue to shrink effective distances between markets, reduce production costs and drive innovations such as e-commerce, online shopping and digital marketing.
- **Global integration:** Australia's deepening integration into the global economy is driven by increased trade, investment flows and participation in multilateral agreements such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). The rapid growth of Asian economies, especially those of China and India, has cemented the region's importance to Australia's trade and economic policy.
- **Urbanisation and infrastructure demands:** Rapid population growth in urban areas has placed significant pressure on housing, transport networks and public amenities, requiring ongoing investment in infrastructure projects such as metro systems and 'smart city' initiatives.
- **Shift to the service economy:** The service sector now dominates the Australian economy, contributing more than 70 per cent of GDP, while traditional manufacturing continues to decline. These shifts have led to changes in workforce composition, with an emphasis on knowledge-based roles and professional services.
- **Educational attainment:** Higher school retention rates and greater participation in tertiary and vocational education reflect the growing importance of advanced skills in the workforce.
- **Economic cycles and external shocks:** The resources boom of the 2000s drove significant economic growth, but its winding down post-2015 required diversification efforts. Events such as the Global Financial Crisis (2008) and the economic disruptions of the COVID-19 pandemic have shaped policy priorities, emphasising resilience and adaptability.
- **Changing workforce demographics:** Greater workforce participation by women and older workers reflects evolving social norms and economic needs. Initiatives such as flexible work arrangements and superannuation reforms support these demographic shifts.
- **Union membership trends:** Unionisation rates have declined, driven by the rise of casual and 'gig economy' employment, as well as shifts in workplace structures and worker preferences.
- **Household debt levels:** Rising household debt, largely driven by the housing market, poses risks to financial stability and influences consumer spending patterns, highlighting the need for effective regulatory frameworks.

11.3.1 Regulatory reform and competition policy

Early regulation

Since Federation in 1901, Australian markets have been regulated through wage-setting systems, industrial dispute mechanisms, and trade protections such as tariffs and quotas to shield domestic producers.

GBEs

Governments established GBEs to enhance competition in industries, particularly in natural monopolies, and to provide essential services. Examples include the following:

- **Historic GBEs:** Commonwealth Bank (1911) and Qantas Empire Airways (1947) were founded to provide competition or fulfill public needs.
- **Modern GBEs:** Medibank Private (1975) and the National Broadband Network (NBN, 2009) aimed to address gaps in private sector provision.

Public sector reform and privatisation

The 1990s saw major public sector reforms, including the privatisation of GBEs to increase efficiency and reduce government debt. Key examples include the sale of:

- Commonwealth Bank, Qantas, Medibank Private, Telstra and major airports
- State-level assets, such as electricity networks, ports and toll roads (for example, QR National in Queensland).

Privatisation remains controversial: supporters point to efficiency gains and infrastructure funding, while critics raise concerns about reduced public accountability.

Reform strategies

Reforms to GBEs have included:

- **corporatisation:** restructuring GBEs to operate like private companies with clear goals and accountability (for example, Stanwell Corporation in Queensland)
- **commercialisation:** encouraging profitability through dividend payments to the government
- **competitive neutrality:** ensuring that GBEs operate under the same tax and regulatory obligations as private firms to prevent unfair advantages.

Rationale for reform

Privatisation and reform assume that private ownership drives efficiency through competition and better resource allocation. Additionally, proceeds from asset sales can fund public infrastructure projects, as seen in New South Wales' investment in transport and urban development after selling electricity and port assets.

Infrastructure focus

Infrastructure Australia emphasises that robust market structures and balanced funding between users and taxpayers deliver the best outcomes for infrastructure projects, fostering innovation and equity in service delivery.

Competition policy

Competition policy is policy aimed at making markets more competitive and preventing the abuse of market power.

Government intervention in Australian markets extends beyond ownership of GBEs to regulating market conduct. Laws and regulations address market failures, uncompetitive behaviour and outcomes that are detrimental to consumers or Australia's economic stability, such as current account imbalances.

National Competition Policy

The National Competition Policy (1995–2005) – which was introduced following a 1993 independent review of national competition policy known as the *Hilmer Report* – was a landmark microeconomic reform program. Coordinated by the Council of Australian

Governments (COAG), it aimed to enhance competition and consumer welfare. While it was largely successful, deregulation under the policy faced criticism in sectors such as dairy, transport and energy.

Legislative framework

The *Competition and Consumer Act 2010* (Cth) (formerly the *Trade Practices Act 1974* (Cth)), which incorporates the Australian Consumer Law, now forms the backbone of competition policy. These laws, which are administered by the Australian Competition and Consumer Commission (ACCC), aim to:

- protect consumers from unfair practices
- promote competitive behaviour across industries
- regulate infrastructure sectors such as electricity, gas and telecommunications.

The ACCC enforces industry codes, monitors prices, and ensures compliance with safety and fair trading standards.

Harper Review

The *Harper Review* (2015) evaluated competition policy and recommended 56 reforms, including a public interest test for assessing market concentration and anti-competitive practices. These recommendations have guided subsequent reforms to foster a fairer and more dynamic economy.

Jim Chalmers' competition policy reforms

Building on the above foundations, Treasurer Jim Chalmers has spearheaded a new wave of competition policy reforms from 2023 to address modern challenges, including:

- strengthening oversight of digital markets and technology giants to curb monopolistic practices
- enhancing competition in key industries, such as energy, retail and banking, to help achieve lower costs for consumers
- updating the ACCC's powers to tackle anti-competitive behaviour in rapidly evolving markets.

Chalmers' reforms emphasise protecting small businesses, empowering consumers and ensuring that competition remains a driver of innovation and economic resilience.

Market regulation

Some of the key government bodies used to regulate conduct in Australian markets, with the aim of improving supply-side outcomes, are set out below.

Financial industry deregulation

The Australian Securities and Investment Commission (ASIC), the Australian Prudential Regulation Authority (APRA) and the ACCC are the principal regulatory agencies that implement government policy on corporate regulation. In addition, there are various state consumer tribunals, such as the Queensland Office of Fair Trading (OFT).

Revenue collection

The Australian Taxation Office (ATO) is the principal organisation for revenue collection and ensuring the integrity of the tax system.

Productivity

The Productivity Commission does not implement supply-side policies, but it has become a key part of the nation's microeconomic reform agenda. The Commission was created in 1998, to replace the Industry Commission, the Bureau of Industry Economics and the Economic Planning Advisory Commission. It conducts independent research and provides information and advice to the government on a range of economic, social and environmental issues. However, its analysis of the predicted effects on the productivity of existing and

proposed policies is what makes its work central to the microeconomic reform agenda. The Commission also monitors and reports on the performance of Commonwealth and state government trading enterprises. Its expertise is widely recognised, as is the effectiveness of its contribution to public debate and policy formulation.

Infrastructure

- Infrastructure Australia.

The labour market

- Commonwealth Court of Conciliation and Arbitration (1904–56)
- Commonwealth Court of Conciliation and Arbitration Commission and the Commonwealth Industrial Court (1956–2006)
- Australian Industrial Relations Commission and the Australian Fair Pay Commission (2006–10)
- Fair Work Australia (from 2010), known as the Fair Work Commission from 2013.

Public sector integrity

- There are sections within public service departments that regulate the economic conduct of the Commonwealth and state public sectors.
- There are independent bodies in all states – such as Queensland’s Crime and Corruption Commission – that investigate and regulate crime, corruption and integrity in state public sectors. There is no equivalent body at the federal level.

Deregulation

Overview

Since 1983, **deregulation** has been a cornerstone of Australia’s economic reform agenda. It complements privatisation by enhancing competition, improving productivity and lowering consumer prices. The movement was influenced by the following key economic theories:

- George Stigler’s theory of economic regulation, which highlighted **regulatory failure** and inefficiency caused by excessive government intervention
- William Baumol’s **contestability theory**, which emphasised the need for reduced regulation to allow greater market competition.

Global market integration further accelerated the push for deregulation in Australia.

Key deregulated sectors

- Financial markets (1983):
 - the floating of the Australian dollar
 - the deregulation of interest rates, allowing market-driven pricing
 - the licensing of 16 foreign banks to compete domestically.
- Airlines (1990s):
 - the entry of Qantas into domestic routes and the entry of domestic airlines into international routes, fostering competition.
- Telecommunications (1990s):
 - the entry of Optus into the market in 1992, competing with government-owned Telecom (later Telstra)
 - the entry of Vodafone into the mobile market in 1993
 - full market deregulation in 1997, enabling more carriers to compete.
- Agriculture (1989–95):
 - the deregulation of wheat marketing (1989)
 - the removal of import embargos on products such as citrus, dried fruit, sugar and tobacco (1995)
 - the deregulation of egg marketing in several states.

Contemporary impacts

Deregulation has driven significant change, enabling greater competition, innovation and consumer choice across various sectors. However, challenges remain in balancing market efficiency with safeguarding public interest, particularly in critical industries such as energy and telecommunications.

CHECK FOR UNDERSTANDING 11.4

- 1 **Explain** the difference in meaning between the terms 'supply' and 'aggregate supply'.
- 2 **Recall** the two main ways in which microeconomic reform policies can improve the overall performance of an economy.
- 3 In which decade did microeconomic policies in Australia have their greatest impact on the structure of the economy?
- 4 What economic justification has been given by Australian governments when intervening in markets by establishing GBEs?
- 5 **Explain** the differences between privatisation, corporatisation and commercialisation.
- 6 Should selling part of a GBE to the private sector or leasing it for 100 years be described as privatisation?
- 7 Copy and complete the table in Figure 11.11 by adding rows and inserting the names of businesses and the information requested in the blank cells. The first row has been completed for you as an example.

FIGURE 11.11 A history of government-owned businesses in Australia

Name of business	Year established and government name	Industrial sector (financial, infrastructure, transportation etc.)	Still in government ownership? (yes/no/partially)
Commonwealth Bank	1911 – Fisher, ALP	Financial	No

- 8 Why has Australia embarked on a program of deregulation of markets and privatisation of GBEs since 1983? **Explain** in 200–250 words, ensuring that you include the meanings of 'deregulation', 'regulatory failure' and 'contestability theory'.

ECONOMICS CHALLENGE



Read the following article and complete these activities:

- 1 On a copy of the article, highlight the key points made in one colour, the economic reasoning given to support these in another colour, and any evidence/examples provided in a third colour.
- 2 Briefly summarise, in a series of dot points, the article's argument that little is gained by privatising government-owned businesses unless private profit-making incentives are aligned with the interests of society.
- 3 Evaluate the reliability of the author and the 'experts' quoted in this article.

Continued

Continued

A privatised monopoly is still a monopoly, and consumers pay the price

By Stephen King, Professor, Department of Economics, Monash University

The Conversation.

The economics of privatisation are pretty simple.

Moving a business from state-ownership to private-ownership improves the profit incentive. Private owners will focus on their return. That means lower costs, higher prices and increased profit. State-owned businesses can, at best, attempt to mimic private incentives through 'corporatisation'. But even the best run state-owned business will have an eye on the government and can expect a 'call' if it crosses political objectives. By themselves, both forms of ownership are imperfect.

State-owned businesses do not act in the general public interest. They respond to their own interests and the interests of the government that owns them. They usually pursue a variety of sometimes-contradictory objectives, some of which may be broadly beneficial to society. But some activities will be wasteful, or even harmful, to the country's long-term interests.

In contrast, private businesses are more likely to focus on profit. This can be bad if the profit-maximising activities of the private business hurt society. It is good when those activities are aligned with society's interests.

A simple example is pricing power. If a business is a private monopoly then it will use its market power to extract maximum profit from consumers. It will meet consumer preferences, but at a price. It will try to keep production costs down but will also want to sell the mix of products customers desire. Doing this means it can charge higher prices and maximise profits. A private monopoly is a servant who does what you want, so long as it can raid your bank account at the same time.

A public monopoly will focus less on profit. From the customers' perspective, it will not do what you want - unless that aligns with the interests of its political masters. You may not pay as much, but paying less for something that doesn't meet your needs doesn't sound like a great deal.

So the trick with privatisation is to align private profit making incentives with the incentives of society. There are two ways to do this.

The first is through competition. In a competitive market, private profit maximising businesses try to steal each other's customers. They do this both by better meeting customers' needs and by undercutting their rivals' prices. Each business acts to raise its own profits. But the overall effect is that profits are competed away. Customers gain, innovative businesses gain, and businesses that can't meet customers' needs go bankrupt. It is ruthless but it also aligns business interests with the interests of the public who are buying their goods and services.

So privatisation needs competition. As Kikeri and Nellis note, '[p]rivatization and pro-competition policies are in fact complements that are mutually reinforcing'.

But there is one problem with this solution. It means lower privatisation revenues for the government.

Continued

Continued

When a government business is sold to the private sector, the price the government receives reflects the future expected profits of the business with private owners. If the government privatises the business as a monopoly then the expected profits - and price received by the government - is high. In contrast, if the government sets up a competitive market for a newly privatised business then the future expected profits will be lower. And so is the price received by government.

So privatisation with competition can be a big win for Australia. Private ownership creates incentives to produce what we want, when we want it, at minimum cost. Competition keeps prices down.

But privatisation without competition is like a hidden tax. The government gets more today because we will all be paying more tomorrow.

Hence the comments this week by the ACCC chairman, Rod Sims, by Fred Hilmer and by former ACCC chairs, Graeme Samuel and Alan Fels (in the pay-walled *AFR*). If a state government privatises a monopoly port or airport, then it will get more money than if it establishes a competitive market. If it privatises those businesses with a first right of refusal to develop a competitor (such as Badgerys Creek airport or the Port of Hastings in Victoria) then the government will get even more money, because competition will never happen.

So the current debate on privatisation is only half the story. Privatisation without competition risks turning a public monopoly into a private monopoly. The owners may change but the public will get ripped off just the same.

What is the second option? If competition is not possible then the privatised business needs to be regulated so that it cannot exploit its market power.

In today's *Australian Financial Review*, Graeme Samuel notes this alternative.

'He believed that most issues could be resolved through regulation and access regimes and that Australia had a reasonable record in that regard'.

Professor Samuel is correct. But regulation is always going to be a second best solution. Both government-owned and private monopolies can play games with regulators and the end result will always fall short of vigorous competition between private businesses. If competition is not possible, for example for monopoly electricity transmission lines, then privatisation and regulation is a compromise solution. But privatisation with competition is where society really wins.

The current round of privatisations is predictable and regular. Businesses move into and out of government ownership over time. Government ownership is only needed when there are strong conflicts between profit-incentives and public welfare. But if privatisation occurs without competition, then, as a nation, we only get a fraction of the benefit. The government will make more money but do not be fooled. It is just a future hidden tax as consumers pay for today's increased government revenue through tomorrow's higher prices.

Source: Stephen King, 'A privatised monopoly is still a monopoly, and consumers pay the price'. *The Conversation*, 24 June 2014. (<https://theconversation.com/a-privatised-monopoly-is-still-a-monopoly-and-consumers-pay-the-price-28384>) CC BY ND

11.3.2 Investment in infrastructure

Australia's economic development has been marked by iconic infrastructure projects characterised as 'nation-building projects', such as

- Sydney Harbour Bridge (1932) and the Snowy Mountains Hydro-electric Scheme (1949–74) – revolutionising transport and energy
- the Trans-Australian Railway (1974) and the North West Shelf project (1980s) – connecting regions and driving resource exports.
- Curtis Island Liquefied Natural Gas Plant (2015) – boosting Australia's status as a leading energy exporter.

Australia continues to invest in significant infrastructure projects that drive economic growth, enhance connectivity and support the transition to renewable energy.

A notable recent and ongoing initiative is Fortescue Metals Group's solar farm initiative. Fortescue is advancing its decarbonisation efforts by constructing a 190 MW solar farm at its Cloudbreak mine in Western Australia, which is scheduled to commence operations in 2025. This project is part of a broader strategy to deploy 2–3 gigawatts of renewable energy generation and substantial battery storage, aiming to eliminate diesel and gas usage by 2030.

Economic benefits

Infrastructure projects create jobs during their construction and operation phases, enhance resource use, and improve supply chain efficiency through economies of scale and new technologies. Landmarks such as the Sydney Opera House (1973) also contribute culturally and economically, attracting tourism and global recognition.

Funding and governance

Historically, state governments led infrastructure provision, funded by taxes and federal grants. Modern funding increasingly relies on public-private partnerships (PPPs) and private sector investment. Despite this shift, government remains the dominant investor:

- State governments manage local projects and services.
- The federal government provides funding, sets regulatory frameworks and oversees major national initiatives.

The role of infrastructure

Infrastructure underpins economic growth, improves resource allocation and enhances living standards. It contributes significantly to GDP, with transport infrastructure alone accounting for over 70 per cent of infrastructure-related services. Continued investment in infrastructure is vital to maintaining Australia's global competitiveness and domestic wellbeing.

11.3.3 Investment in education and training

Responsibility and funding

While education and training are primarily managed by state governments, the Commonwealth provides significant funding through the federal budget. Employers also play a critical role in funding on-the-job training and upskilling, often in collaboration with universities and vocational education providers.

Expanding access to education

- **Free university education:** The Whitlam government introduced free university education in 1974 to make tertiary study more accessible to working- and middle-class Australians.
- **Higher Education Contribution Scheme (HECS):** This 1989 reform shifted some higher education costs to students, enabling expansion of the tertiary sector amid fiscal constraints.
- **International education:** Allowing fee-paying international students to study in Australia has turned education into a lucrative export industry, bolstering sector growth and contributing to Australia's economy.

School funding and reforms

- **Gonski Report:** The *Gonski Report* (2011) reviewed funding for schooling, and advocated for a more equitable school funding model, resulting in the Gillard government committing \$9.8 billion in funding from 2013–14 onwards.
- **Subsequent budgets:** These have continued to prioritise initiatives to improve access and outcomes, including targeted support for disadvantaged schools.

Vocational Education and Training (VET)

The VET sector has seen major reforms and investments aimed at addressing skills shortages and adapting to industry needs, including the following:

- **Building Australia's Future Workforce package (2011–12):** an investment of \$3 billion in workforce development initiatives
- **Skilling Australia Fund (2017–18):** a \$1.5 billion fund to train 300,000 apprentices and trainees over four years, prioritising high-demand occupations.

Recent developments

Recent developments include the following:

- **Budget initiatives:** Recent federal budgets have allocated targeted funding for digital skills, green energy jobs and regional workforce development to support both economic and environmental objectives.
- **National Skills Agreement:** This collaboration between federal and state governments focuses on creating a skilled workforce in areas such as technology, health care and infrastructure.

Investment in education and training contributes to Australia's productivity, innovation and economic growth. A skilled workforce enhances the nation's competitiveness in global markets and ensures resilience in an evolving economic landscape.

11.3.4 Innovation and R&D

The role of innovation and R&D

- **Innovation:** Often driven by good ideas, innovation may require minimal initial investment but plays a vital role in improving processes, products and services.
- **R&D:** A critical but costly component of innovation, R&D involves high risk, with no guarantee of success, making it challenging to secure investment.

Challenges in Australia

- **Scaling innovation:** Australian innovators often struggle to attract the investment needed to commercialise their ideas. Large companies dominate R&D due to their financial capacity.
- **Sector leadership:**
 - *Mining:* The mining sector's efficiency is driven by substantial R&D investments from multinational companies.
 - *Agriculture:* Government-funded bodies such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and universities play key roles in advancing productivity and sustainability.

Government support for innovation

Governments encourage R&D through targeted policies, including:

- **tax incentives:** favourable taxation treatment for businesses investing in R&D
- **grants and funding:** direct investment in research bodies and individual projects to support innovation in key sectors.

Historical investments

Australia has consistently prioritised R&D through significant budget commitments, such as the following:

- **1997 budget:** \$1.3 billion for ICT access and R&D initiatives
- **2001 budget:** \$4.5 billion for the government's 'Innovation Statement' package, to foster growth across industries
- **2015 budget:** \$1.1 billion for the National Innovation and Science Agenda, targeting technology, science and entrepreneurship.

Recent and emerging initiatives

- **2023 and beyond:** The Australian Government has increased funding for clean energy research, digital transformation and health sciences, aligning R&D efforts with national priorities such as climate resilience and AI technology.
- **National Reconstruction Fund:** This is a \$15 billion government initiative to support advanced manufacturing, renewables and medical technology, driving innovation across emerging industries.

Economic impact

R&D investments enhance Australia's global competitiveness, support high-value industries and promote long-term economic growth. Innovation in fields such as renewable energy, AI and biotechnology positions Australia as a leader in the transition to a knowledge-based economy.



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FIGURE 11.12 The Australian Government has increased funding for clean energy research.

CHECK FOR UNDERSTANDING 11.5

- 1 Which level of government is:
 - a primarily responsible for providing education and training
 - b the main source of the funding for schooling and tertiary education
 - c responsible for the setting of minimum wage rates and the settlement of industrial disputes?
- 2 **Explain** what the following mean and, using examples where possible, **explain** how each can influence aggregate supply:
 - a liberalisation of trade barriers
 - b reduced industry protection
 - c floating the Australian dollar
 - d innovation.
- 3 'Technology and market forces were responsible for much of the structural change that has taken place in the Australian economy since the 1980s.'
Explain the meaning of this statement and give three important examples.
- 4 Give two reasons why it is difficult to attract investment in R&D.

11.4 Limitations of microeconomic policy in Australia

Microeconomic policies aim to enhance efficiency, productivity and long-term economic growth by improving the functioning of markets and industries. However, despite their potential benefits, these policies face several key limitations.

11.4.1 Structural deficits and budgetary constraints

Microeconomic reforms often require government investment, such as infrastructure spending, workforce retraining or tax incentives. However, if the government is running a structural budget deficit – where recurrent spending exceeds revenue even at full employment – this limits the ability to fund reforms without increasing debt or cutting spending in other areas.

For example, Australia's persistent budget deficits in the years following the Global Financial Crisis (GFC) and the COVID-19 pandemic placed constraints on microeconomic policy initiatives. Major productivity-enhancing investments – such as improving transport networks or reducing business tax burdens – may be postponed or scaled back due to limited fiscal capacity.

11.4.2 Time lags in implementation and impact

Microeconomic reforms require time to implement, and even longer for measurable economic benefits to appear. There are three main types of time lags:

- **Recognition lag:** Identifying structural inefficiencies or productivity issues takes time.
- **Implementation lag:** Reforms such as deregulation, tax changes or infrastructure projects require legislative approval and roll-out periods.
- **Impact lag:** The full benefits of reform (such as increased competition or innovation) may take years or even decades to materialise. For instance, it may be several years before labour market reforms designed to improve flexibility and participation translate into higher employment rates and productivity gains. Similarly, privatisation of government assets may not immediately lead to efficiency improvements if there are transitional costs or regulatory challenges; for example, delays in approvals or ineffective oversight.

11.4.3 Global influences and external shocks

Australia's economy is highly integrated with global markets, meaning that even well-designed microeconomic policies can be overshadowed by external factors such as those set out below.

Global commodity prices

Since Australia is a major exporter of iron ore, coal and agricultural products, fluctuations in global demand and prices can override domestic policy efforts.

International trade policies

Trade tensions such as the US–China trade war have disrupted Australian exports and investment flows, limiting the effectiveness of microeconomic reforms aimed at boosting competitiveness.

Exchange rate fluctuations

A stronger Australian dollar can reduce the competitiveness of domestic industries, undermining policies intended to boost exports and manufacturing.

For example, the removal of trade barriers and tariff reductions in Australia aimed to improve efficiency and global competitiveness. Protectionist policies in other countries have reduced the benefits of Australia's trade reforms for exporters.

11.4.4 Political constraints and resistance to reform

Microeconomic policy changes often face political resistance from interest groups, industries and the broader public. Governments may hesitate to introduce necessary but unpopular reforms due to electoral considerations, pressure from lobby groups or ideological divides. For example:

- Labour market reforms that increase flexibility may be opposed by trade unions, which fear job insecurity and wage suppression.
- Privatisation of government assets, such as energy and water utilities, often faces public backlash due to concerns about price increases or reduced service quality.
- Tax and competition reforms may be challenged by business groups or industry lobbies, particularly if they lead to increased competition or the removal of subsidies.

CHECK YOUR UNDERSTANDING 11.6

- 1 **Describe** two types of time lags that can affect the success of microeconomic policy reforms in Australia.
- 2 **Explain** how structural budget deficits can limit the effectiveness of microeconomic reform.
- 3 **Distinguish** between domestic microeconomic policy limitations and global influences on policy outcomes, using one example of each.
- 4 **Explain** why political resistance can delay or prevent microeconomic reforms, using an example from the labour market or privatisation.

R 11.1 Terminology

Select the correct term from the list below that describes each statement.

A Microeconomics	D Dynamic efficiency	G Deregulation
B Supply-side policies	E Contestability theory	H Regulatory failure
C Structural change	F Privatisation	I Quality of life

- 1 The relaxation or removal of government restrictions on the free operation of markets
- 2 The overall wellbeing of individuals according to their material living standards and a range of other considerations, such as health standards, education levels and happiness
- 3 The ability of an economy to respond to changing consumer demands by reallocating resources to new industries or production processes
- 4 The idea that government regulation of markets is ineffective due to the costs involved in administration and compliance, regulatory capture, rent-seeking behaviour by firms, wastage of resources, higher consumer prices, and lack of competition and innovation
- 5 The total or partial sale of a government business enterprise
- 6 The study of economic behaviour at the level of the individual units of an economy; it focuses on the factors affecting the decisions made by individuals, firms and governments about the allocation of resources and the prices of goods and services
- 7 Industry-wide changes in the pattern of production that result in certain products, production processes and even industries disappearing while new ones emerge
- 8 Government initiatives that target individual industries, seeking to improve their competitiveness by improving the efficiency and productivity of producers; these are also referred to as 'microeconomic reform policies'
- 9 The idea that the removal of barriers preventing new firms from entering, or threatening to enter, a market would make markets more contestable and therefore competitive

R 11.2 Multiple-choice questions

Select the correct response to each of the following:

- 1 Economists call industry-wide changes in the pattern of production that result in certain products, production processes and even industries disappearing while new ones emerge:
 - A supply-side policies.
 - B structural change.
 - C microeconomic reform.
 - D macroeconomic reform.
- 2 The ultimate aim of economic management is:
 - A economic growth.
 - B increased standards of living.
 - C increased wellbeing of the population.
 - D one or more, but not all, of Options A–C.
 - E all of options A–C.
- 3 Trade liberalisation involves:
 - A the dismantling of industry protection.
 - B diversification of export markets.
 - C pursuing bilateral and multilateral trade agreements.
 - D all of the options above.
- 4 $\frac{\text{output}}{\$ \text{ of capital input}}$ is used to calculate:
 - A capital productivity.
 - B total factor productivity.
 - C labour productivity.
 - D multi-factor productivity.
- 5 $\frac{\text{output}}{\text{units of materials, labour and capital used}}$ is used to calculate:
 - A labour productivity.
 - B capital productivity.
 - C multi-factor productivity.
 - D total factor productivity.
- 6 Which supply-side reform resulted from the independent *Hilmer Report*?
 - A floating of the exchange rate for the Australian dollar
 - B development of the National Competition Policy
 - C deregulation of the financial system
 - D privatisation of government business enterprises

- 7 Which of the following is a key factor influencing government supply-side reforms in Australia?
 - A technological advancements such as AI and ICT reducing production costs
 - B increasing government ownership of major industries to control economic output
 - C eliminating global trade agreements to focus on domestic production
 - D reducing investment in infrastructure due to urbanisation pressures
- 8 Which of the following best describes the role of the Productivity Commission in Australia's microeconomic reform agenda?
 - A It implements supply-side policies and directly regulates market conduct.
 - B It collects revenue and ensures the integrity of the tax system.
 - C It conducts independent research and provides advice on the effects of policies on productivity.
 - D It manages state consumer tribunals and enforces fair trading practices.
- 9 The idea that the removal of barriers preventing new firms from entering, or threatening to enter, a market would make markets more competitive is:
 - A Stigler's theory of economic regulation.
 - B Baumol's theory of economic regulation.
 - C Stigler's contestability theory.
 - D Baumol's contestability theory.

R 11.3 Short response questions

- 1 Why are microeconomic policies important to the competitiveness of Australian exporters and the achievement of external stability?
- 2 **Explain** why the privatisation of government-owned businesses is considered a key microeconomic reform.
- 3 Which national economic objectives are most affected by aggregate supply policies?
- 4 Major infrastructure projects have played an important role in the economic development of Australia. Select five key or iconic projects and explain the benefits the community has derived from these. The projects selected should include at least one project completed before 1960, and one project that is not yet completed.
- 5 **Explain** the relationship between equity of income distribution, intergenerational equity, and policies aiming to increase the level of aggregate supply.
- 6 'Market failure is the key reason that microeconomic reforms are required.' Discuss.

R 11.4 Inquiries

Investigating supply-side policy

The following topics require the application of the knowledge and understanding gained through studying this chapter, supplemented by individual or group research.

Topics

- 1 'Changes in the structure of the Australian economy this century have been largely induced by technological and social changes, rather than by government supply-side reforms.' Discuss.
- 2 Investigate at least one recent supply-side policy aimed at improving Australia's economic growth through efficiency or competitiveness; for example, trade liberalisation, investment in infrastructure, investment in education and training, R&D grants and innovation, deregulation and competition policy, welfare and taxation reform, privatisation of government enterprises, or labour market reform. Evaluate how appropriate the reform was.
- 3 **Evaluate** the effectiveness of microeconomic policies as a means of achieving the government's economic objectives of economic growth, full employment and price stability.
- 4 Major infrastructure projects involve high financial, economic and, at times, social costs. Select a past project or one that is in the planning or construction phase and research the costs and benefits associated with it. Use this information to do a cost-benefit analysis of the project, decide whether the project delivered (or will deliver) a net cost or benefit, and justify your conclusion.



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12

External assessment

The QCAA Economics external assessment demands thorough preparation and a strategic approach for success.

Focus questions and inquiries

- What is the structure of the exam?
- What is the content included in the external assessment?
- What are the three types of questions on the external assessment?

This chapter will examine:

- how to respond to the cognitions in the external assessment questions
- how to approach and interpret multiple-choice questions
- how to structure responses to short response questions
- how to structure responses to extended response questions.

12.1 Preparing for the external assessment

12.1.1 Before the exam

The QCAA Economics external exam demands thorough preparation and a strategic approach for success. Achieving success in the QCAA Economics exam requires not only content knowledge, but also the ability to apply it effectively under exam conditions. By mastering Unit 4 Topics 1 and 3 concepts, practising critical skills such as graph interpretation and calculations, and incorporating evidence included in the provided sources, you can confidently approach the exam. Maintaining a clear structure in your answers, adhering to the question’s focus and managing your time well will help you maximise your performance and demonstrate your understanding of complex economic principles.

Assessment specifications

Exam details	Description
Exam duration	120 minutes
Planning time	15 minutes
Content areas	Unit 4 Topic 1 and Unit 4 Topic 3
Total value	25% of the overall grade

The external assessment for Economics, developed by QCAA and marked by Queensland teachers, constitutes 25 per cent of the overall grade and is standardised across all schools. This exam is designed to evaluate your comprehension of economic concepts, principles and models related to macroeconomic objectives, theory and economic management. It also assesses your ability to analyse economic issues and evaluate economic outcomes within the context of macroeconomic objectives and management. The exam is written, with 15 minutes allocated for planning and 120 minutes for working. You are permitted to use a QCAA-approved non-programmable calculator during the assessment.

Assessment content

The exam includes a variety of questions covering Unit 4 Topic 1 and Unit 4 Topic 3.

Unit 4 Topic 1 focuses on the primary macroeconomic objectives of the Australian Government, such as sustainable economic growth, full employment, price stability, external stability and improved living standards. You study:

- **Macroeconomic objectives:** sustainable economic growth, full employment, price stability, external stability and improved living standards
- **Economic cycle:** the four phases of the economic cycle and their impact on macroeconomic objectives

- **Aggregate demand and supply:** the application of the aggregate demand/aggregate supply model to determine the overall price level and equilibrium level of real output
- **Types of unemployment and inflation:** analysis of various types of unemployment (for example, cyclical, structural) and inflation (for example, demand-pull, cost-push)
- **Fiscal policy:** the role of fiscal policy, including automatic stabilisers and discretionary spending, in influencing aggregate demand and stabilising the economic cycle.

Unit 4 Topic 3 examines policy choices made in Australia about economic activity, including demand management policies (fiscal and monetary) and supply-side policies. You study:

- **Policy choices:** examination of policy choices made in Australia about economic activity, focusing on efficiency, equity and trade-offs
- **Demand management policies:** analysis of fiscal policy (government revenue and expenditure) and monetary policy (the role of the Reserve Bank of Australia and inflation targeting)
- **Supply-side policies:** the nature and aims of aggregate supply policies, including microeconomic reforms to improve productivity, efficiency and competitiveness
- **Economic indicators:** the use of economic indicators to evaluate past economic performance and budget stances
- **Policy effectiveness:** evaluation of the impact and effectiveness of fiscal, monetary and supply-side policies in achieving Australia's economic objectives.

Pay close attention to cognitive verbs such as **comprehend**, **analyse** and **evaluate** to ensure that your responses align with the requirements. Practising past exam papers under timed conditions is a key part of preparation, as it helps you get comfortable with the format and time constraints. Additionally, refine your ability to **construct** and **interpret** graphs, such as supply and demand curves, and ensure that you can perform essential calculations, such as GDP growth rates. Developing concise summaries of key economic theories and models, supplemented by real-world examples, will further solidify your understanding.

12.1.2 During the exam

During the exam, take time to carefully read through all the questions and identify the cognitions and key words. Note the mark allocations. This will help you prioritise and plan your responses effectively. For the extended response question, create a brief outline to organise your main points and how you plan to use the sources. Use graphs only when required by the question, ensuring that they are neatly drawn, clearly and fully labelled, and relevant to the question. Stay focused on the question's requirements to avoid including unnecessary details and wasting valuable time. For calculation-based questions, show all your workings and double-check your answers to minimise errors. Managing your time effectively is essential, so allocate sufficient time to each section and leave sufficient time at the end to review your work.

12.2 Responding to exam-style questions

12.2.1 Section 1: Responding to multiple-choice questions

Answering multiple-choice questions in the QCAA Economics exam requires a combination of knowledge, strategy and careful reading.

- Begin by thoroughly reading the question stem to understand exactly what is being asked, paying attention to key terms and any qualifiers.
- Use your economic knowledge to critically evaluate the options, considering relevant theories, models or data.
- Be cautious of distractors – options that seem plausible but do not fully align with the question.
- If you are unsure of the answer, make an educated guess rather than leaving the question blank, as there is no penalty for incorrect answers.
- Time management is essential. Aim to spend around 1–2 minutes per question to ensure you complete the section without rushing. If time permits, revisit flagged questions and double-check your answers for accuracy.

QUESTION 1

Which of the following statements best describes the concept of inflation targeting and the significance of cash rate changes for economic activity?

- A** Inflation targeting aims to maintain a specific inflation rate, while raising the cash rate typically stimulates economic activity by encouraging borrowing and spending.
- B** Inflation targeting seeks to stabilise prices within a set range, while raising the cash rate usually dampens economic activity by making loans more expensive.
- C** Inflation targeting focuses solely on increasing economic growth, while cash rate adjustments have no significant impact on inflation levels.
- D** Inflation targeting allows for flexible monetary policy, while cash rate changes have an immediate effect on consumer confidence but little effect on inflation.

JUSTIFICATION FOR CORRECT ANSWER

	A	B	C	D
Answer:	☐	☒	☐	☐

The correct answer is B. Inflation targeting aims to keep inflation within a specific target range (2–3 per cent in Australia). When the cash rate is increased, borrowing costs rise. This typically discourages consumer spending and business investment, which can lead to a slowdown in economic activity. Conversely, lowering the cash rate encourages borrowing and spending, which can stimulate the economy.

QUESTION 2

Which one of the following is most likely to shift both the aggregate demand and aggregate supply curve to the right?

- A** an increase in investment and a reduction in subsidies to producers
- B** an increase in the budget deficit and a decrease in the cost of labour
- C** an increase in the productivity of labour and an increase in interest rates
- D** an increase in the budget surplus and an increase in the cost of raw materials

JUSTIFICATION FOR CORRECT ANSWER

	A	B	C	D
Answer:	☐	☒	☐	☐

The correct answer is B. An increase in the budget deficit typically implies that the government is spending more than it is earning. This increased government spending can lead to higher aggregate demand, as the government injects money into the economy, stimulating consumption and investment. A decrease in the cost of labour reduces production costs for firms, which can increase the overall supply of goods and services. When production becomes cheaper, firms are incentivised to produce more, shifting the aggregate supply curve to the right.

QUESTION 3

Which of the following is most likely to increase a manufacturing firm's productivity?

- A** an increase in personal income taxes
- B** an increase in investment in capital goods
- C** a decrease in demand by consumers for the firm's product
- D** a decrease in the size of the import quota for similar products

JUSTIFICATION FOR CORRECT ANSWER

	A	B	C	D
Answer:	☐	☒	☐	☐

The correct answer is B. Investing in capital goods, such as machinery, technology and equipment, directly enhances a manufacturing firm's productivity. This investment allows for more efficient production processes, higher output and often improved product quality. With better capital resources, firms can produce more goods in less time.

QUESTION 4

- Which of the following is an example of a reform in a factor market?
- A the introduction of a quota on imported items
 - B the expansion of government welfare programs
 - C the removal of minimum wage levels for specific industries
 - D the implementation of quality control testing for finished goods

JUSTIFICATION FOR CORRECT ANSWER

	A	B	C	D
Answer:	☐	☐	☒	☐

The correct answer is C. The factor market deals with the inputs used in production, including labour. The removal of minimum wage levels directly influences labour costs, allowing employers more flexibility in hiring and wage setting. This reform can lead to changes in employment rates and worker compensation within the affected industries.

QUESTION 5

- In the context of the federal budget, which of the following combinations accurately describes a source of government income and a component of government expenditure, including the implications for fiscal policy?
- A Direct taxation (income tax) contributes to current expenditure, reflecting ongoing governmental operations and services.
 - B Indirect taxation (sales tax) funds capital expenditure, which supports long-term infrastructure projects.
 - C Revenue from government enterprises finances transfer payments, aimed at redistributing income to support vulnerable populations.
 - D Sale of government assets generates income for current expenditure, which can influence immediate budgetary flexibility but may reduce future revenue streams.

JUSTIFICATION FOR CORRECT ANSWER

	A	B	C	D
Answer:	☒	☐	☐	☐

The correct answer is A. Income tax is a primary source of direct government revenue that funds current expenditure. This expenditure includes day-to-day operational costs, such as salaries for public employees, social services and essential governmental functions.

12.2.2 Section 2: Responding to short response questions

Answering short response questions in the QCAA Economics exam requires precision and focus.

- Begin by carefully reading the question to identify the key requirements, including command terms such as 'explain', 'calculate' or 'identify'.
- Ensure that your answer directly addresses the question and stays within the allocated word or space limit.
- For calculation questions, clearly show all workings to demonstrate your method, as partial credit is often awarded even if the final answer is incorrect.
- When asked to construct graphs, ensure they are neatly drawn, accurately labelled and relevant to the question.
- Use economic terminology appropriately and provide concise explanations or examples where required to strengthen your response.
- Time management is crucial. Allocate enough time to answer all parts of the question and leave a moment to review your response for clarity and accuracy.

A focused and structured approach will help you maximise marks in this section.

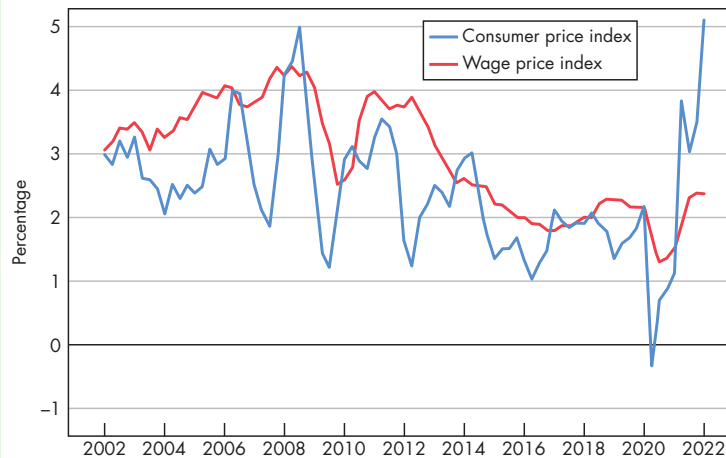


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QUESTION 6

Explain how an expansionary monetary policy would impact living standards. Use Sources 1 to 3 below in your answer. (8 marks)

Source 1: Consumer price index and wage price index, 2002–22

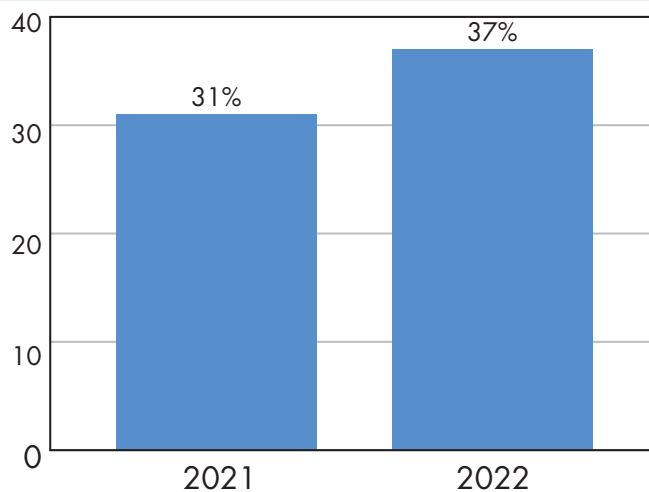


Reserve Bank of Australia, Consumer Price Index, Australia
www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/dec-quarter-2022
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Source 2: Social costs of inflation

... the impact of economic uncertainty and cost of living pressures had led to declines across many indicators of social cohesion ... People who are financially struggling report substantially lower levels of belonging, happiness and social inclusion ... This demonstrates how economic inequalities, exacerbated by the current economic climate, seem to be giving rise to social inequalities that, in turn, drag down overall social cohesion in Australia.

Source 3: Those who describe themselves as 'poor, struggling to pay their bills, or just getting along'



The inflation graph came from this ABS data release. The graph was generated by the AFR, based on the ABS data in this link: www.abs.gov.au/statistics/economy/price-indexes-and-inflation/consumer-price-index-australia/dec-quarter-2022

Question breakdown

Key element	Explanation
Cognition or command	‘Explain’ means to make an idea, situation or process clear by describing it in detail and revealing relevant facts or ideas. This requires you to provide a clear and logical explanation that demonstrates your understanding of the concept or issue. Your response should go beyond simple description to provide reasons or show how and why something occurs.
Syllabus item	Macroeconomic objectives and economic management
Subject topic	Expansionary monetary policy and its impact on living standards
Specific requirements	Use Sources 1 to 3 to support your explanation. • Source 1 discusses the impact of economic uncertainty and cost of living pressures on social cohesion. • Source 2 provides an overview of how expansionary monetary policy works, including its effects on aggregate demand and economic growth. • Source 3 offers evidence on how monetary policy influences research and development spending, which can affect future productivity and living standards.
Things to avoid	Avoid simple descriptions without analysis or explanation of how and why expansionary monetary policy impacts living standards. Ensure that your response includes a clear connection between the policy, its mechanisms and the resulting changes in living standards. Avoid general statements without supporting evidence from the provided sources.

Sample response to Question 6

An expansionary monetary policy, typically involving lower interest rates, aims to stimulate economic activity by boosting aggregate demand. However, when inflation outpaces wage growth, the policy’s impact on material living standards can be limited.

While lower interest rates may encourage borrowing and spending, rising prices can erode purchasing power, making it difficult for households to afford basic goods and services. If wages do not keep pace with inflation, the real income of consumers effectively decreases, leading to diminished material living standards despite the availability of more credit and lower borrowing costs.

Moreover, the benefits of expansionary monetary policy may not be evenly distributed. Lower-income households, which are often more affected by inflation, may not significantly benefit from increased access to credit. Thus, while expansionary monetary policy can stimulate economic growth, its effectiveness in improving material living standards is constrained when inflation exceeds wage growth, leading to a decline in overall purchasing power.

Key

Explanation of Point 1

Explanation of Point 2

Demonstration of how Points 1 and 2 are related

QUESTION 7

Explain how increasing taxes will reduce inflationary pressures in the economy. Draw a diagram to illustrate your response. (8 marks)

Question breakdown

Key element	Explanation
Cognition or command	'Explain' means to make an idea, situation or process clear by describing it in detail and revealing relevant facts or ideas. This requires you to provide a clear and logical explanation that demonstrates your understanding of the concept or issue. Your response should go beyond simple description to provide reasons or show how and why something occurs.
Syllabus item	Macroeconomic objectives and economic management
Subject topic	Taxation and its impact on inflationary pressures
Specific requirements	Draw a diagram to illustrate your response. Explain how increasing taxes reduces disposable income, leading to decreased consumer spending and aggregate demand, which in turn alleviates upward pressure on prices. Use economic theory and models to support your explanation.
Things to avoid	Avoid simple descriptions without analysis or explanation of how and why increasing taxes reduces inflationary pressures. Ensure that your response includes a clear connection between the increase in taxes, the reduction in aggregate demand and the resulting decrease in inflationary pressures. Avoid general statements without supporting evidence or diagrams.

Sample response to Question 7

An increase in taxes can help fight an inflationary gap by reducing disposable income and, consequently, consumer spending. When taxes rise, households have less money to spend on goods and services, which leads to a decrease in aggregate demand. This reduction in demand can help alleviate upward pressure on prices, thereby stabilising inflation.

For example, in an economy experiencing rapid growth and rising prices, higher income taxes can cool off excessive consumption and investment. As businesses see a decline in demand, they may be prompted to slow production, reducing the risk of overheating the economy.

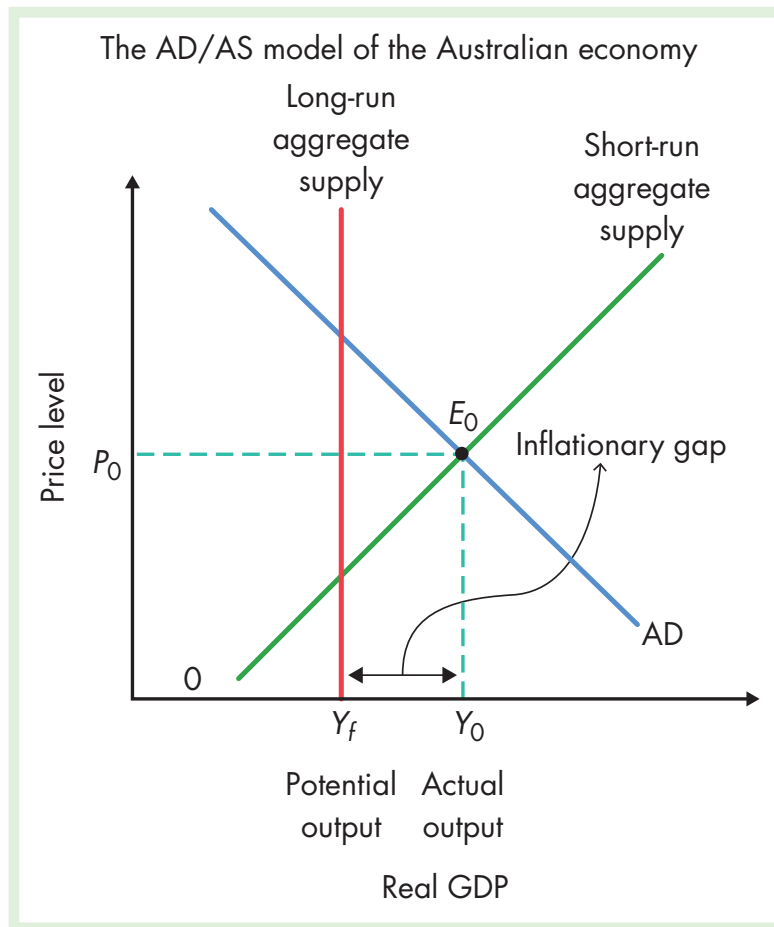
Additionally, increased tax revenue can enable the government to pay down debt or invest in long-term projects that do not contribute to immediate inflationary pressures. Overall, by curbing spending and demand, tax increases serve as a countermeasure to inflationary gaps, supporting the government's objective of maintaining price stability and sustainable economic growth.

Key

Explanation of Point 1

Explanation of Point 2

Demonstration of how Points 1 and 2 are related



QUESTION 8

Explain the role of automatic stabilisers in countering a slowdown in rates of economic growth. (4 marks)

Question breakdown

Key element	Explanation
Cognition or command	'Explain' means to make an idea, situation or process clear by describing it in detail and revealing relevant facts or ideas. This requires you to provide a clear and logical explanation that demonstrates your understanding of the concept or issue. Your response should go beyond simple description to provide reasons or show how and why something occurs.
Syllabus item	Unit 4 Topic 3 Sub-topic A: analyse the role of automatic stabilisers and the role of discretionary spending in influencing aggregate demand and stabilising the economic cycle, and apply using diagrams.
Subject topic	There are two components of the subject matter that this question refers to: automatic stabilisers and the nature of the economic cycle.
Specific requirements	The question refers to the relationship between automatic stabilisers and the slowdown in economic growth. Ensure that the response details how this relationship operates to help slow down the economy.
Things to avoid	Avoid a simple description of automatic stabilisers and how they operate at any point in the economic cycle. Avoid a generic description of the economic cycle.

Sample response to Question 8

Automatic stabilisers play a crucial role in mitigating the effects of a slowdown in economic growth, particularly in the context of the Australian economic cycle.

During periods of economic contraction, such as the downturn experienced during the COVID-19 pandemic, employment falls and incomes typically decline, leading to reduced tax revenues for the government. This decrease in tax revenue allows households to retain more disposable income, helping to sustain consumer spending and prevent a sharper decline in economic activity.

Additionally, during economic slowdowns, government spending on welfare programs – such as JobSeeker and other support measures – automatically increases as more individuals qualify for assistance. This rise in government expenditure provides a safety net for those affected by the downturn, further supporting aggregate demand.

As a result of falling revenues and increasing expenditure, the federal budget will move towards a deficit. By cushioning the impact of reduced economic activity, automatic stabilisers help smooth consumption patterns and promote recovery, resulting in an increase in economic growth.

Key

Explanation of automatic stabilisers

Explanation of a slowdown in economic growth

Demonstration of how automatic stabilisers work during a slowdown

12.2.3 Section 3: Responding to an extended response question

Answering an extended response question in the QCAA Economics exam requires a structured and detailed approach.

- Begin by carefully analysing the question to identify the key terms (for example, 'evaluate', 'analyse') and the specific aspects that you need to address.
- Plan your response by creating a brief outline that includes an introduction, body paragraphs and a conclusion.
 - In the introduction, provide a clear statement that addresses the question directly.
 - Use the body paragraphs to address each component of the question as stated, each focusing on a specific point supported by the source provided, economic theory and/or models. Use economic terminology consistently and ensure that your arguments are logical and well supported.
 - In the conclusion, summarise your key points and reiterate how they address the question.
- Ensure that all sources provided in the stimulus material are incorporated into the response. Look for sources that provide information to be used in analysis and in evaluation. Where possible, look for connections between sources to demonstrate enhanced meaning.
- Time management is essential. Allocate enough time to plan, write and review your response.

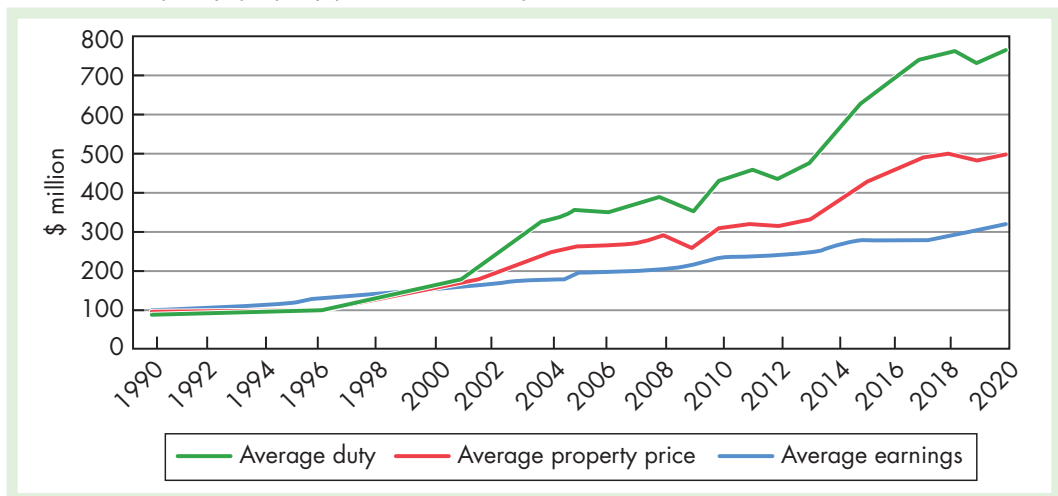
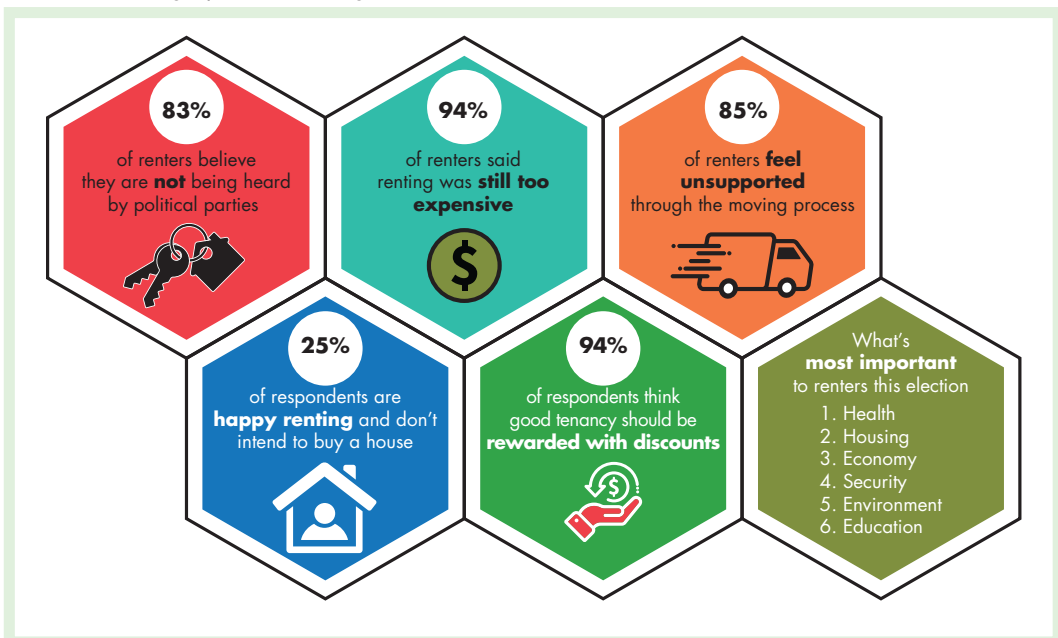
A well-organised, focused and evidence-based approach will help you demonstrate your understanding and achieve maximum marks.

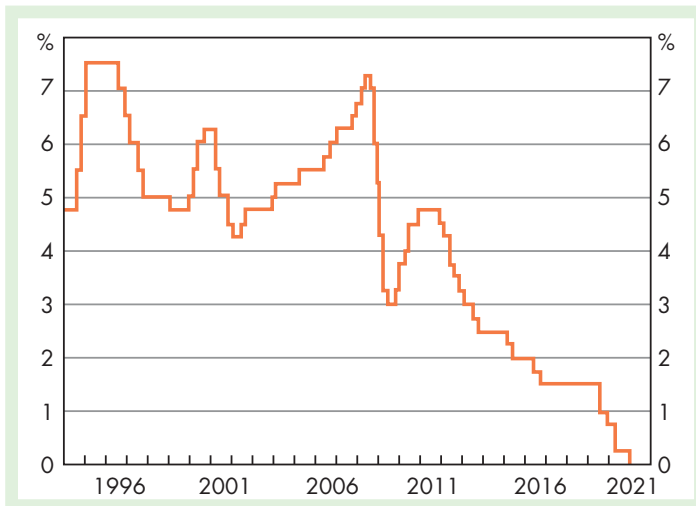
QUESTION 9

Analyse Sources 4 to 12 on the following pages to **evaluate** to what extent the policy options identified would be effective to achieve economic growth in the next 12 months. Respond in 400–600 words. (28 marks)

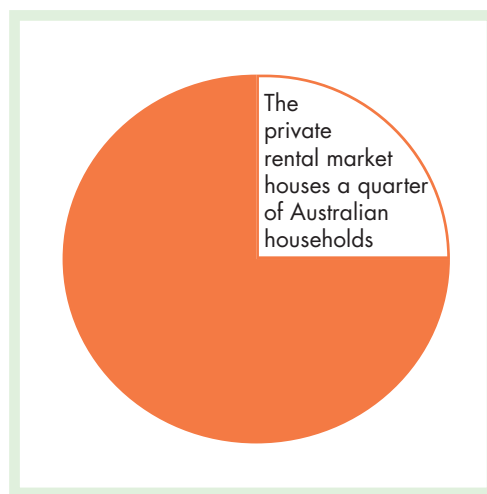
Question breakdown

Key element	Explanation
Cognition or command	'Analyse' means to examine in detail the structure of something, typically for purposes of explanation and interpretation. 'Evaluate' means to assess the strengths and weaknesses of something, considering evidence and criteria to make a judgement.
Syllabus item	Macroeconomic objectives and economic management
Subject topic	Policy options for achieving economic growth
Specific requirements	Use Sources 4 to 12 to support your evaluation. Sources 4 to 12 provide data and information on various economic indicators and policy measures, and their potential impacts on economic growth. Your response should analyse these sources to evaluate the effectiveness of the identified policy options in achieving economic growth over the next 12 months.
Things to avoid	Avoid simple descriptions without analysis or explanation of how and why the policy options would be effective in achieving economic growth. Ensure that your response includes a clear connection between the policy measures, their mechanisms and the resulting changes in economic growth. Avoid general statements without supporting evidence from the provided stimuli.

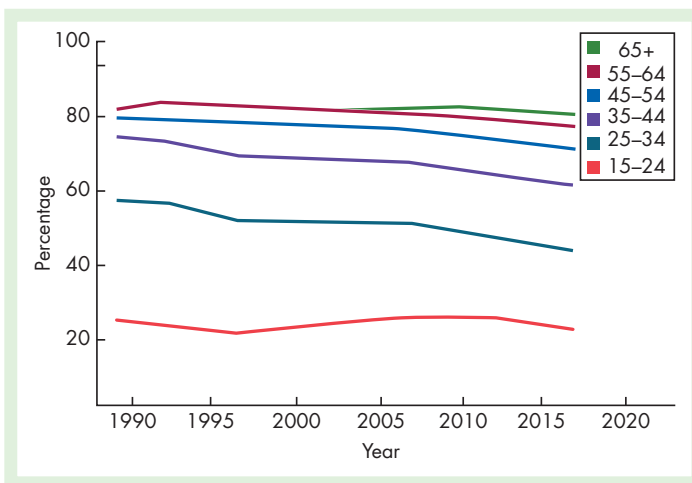
Source 4: Policy choices**Source 5:** Stamp duty, property prices and earnings over time**Source 6:** Demographics of renting

Source 7: Australian cash rate target

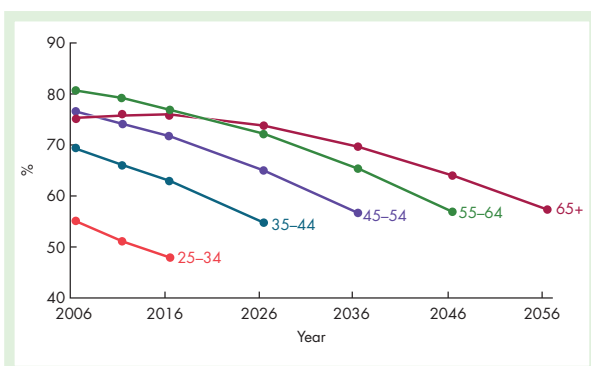
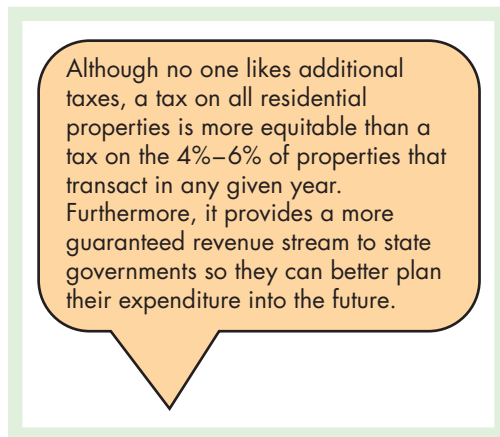
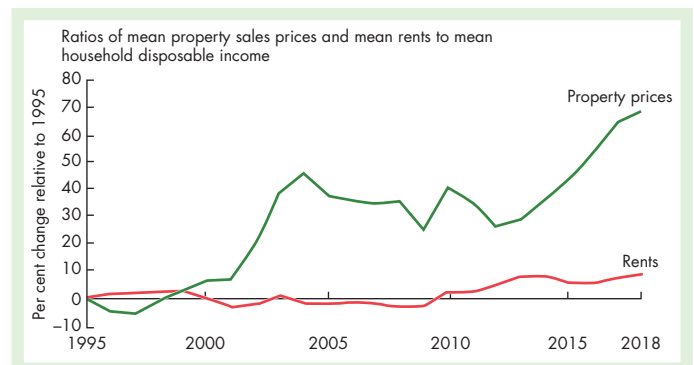
Source: The Year Ahead, Reserve Bank of Australia, Licensed under CC by 4.0 license. <https://www.rba.gov.au/speeches/2021/sp-gov-2021-02-03.html>.

Source 10: Private rental market

Source: page 22, 'Vulnerable Private Renters: Evidence and Options. Productivity Commission Research Paper, September 2019, www.pc.gov.au/research/completed/renters/private-renters.pdf

Source 8: Home ownership by age group

Source: ABS, Yates and ABC News.

Source 9: Due to low home ownership among young people today, retirees of the future are more likely to be renters**Source 11:** Property taxes**Source 12:** Property prices have soared above incomes, making saving for a home more difficult

property prices soared above incomes', page 4 - 'Vulnerable Private Renters: Evidence and Options. Productivity Commission Research Paper, September 2019, Source: www.pc.gov.au/research/completed/renters/private-renters-visual.pdf

Sample response to Question 9

In addressing economic challenges, two key policy options are fiscal policy, specifically the reduction of stamp duty, and monetary policy, involving a decrease in the cash rate by the Reserve Bank of Australia (RBA). Each policy presents distinct mechanisms, benefits and limitations in stimulating economic activity and addressing housing affordability.

Fiscal policy involves government decisions on revenue and expenditure. Reducing stamp duty is an expansionary measure that lowers government revenue, potentially increasing the budget deficit or reducing a surplus. The aim is to make property transactions more affordable, encouraging home purchases and stimulating economic activity. Stamp duty is a significant source of government revenue, and changes to it can influence both housing affordability and broader economic growth.

However, the effectiveness of reducing stamp duty varies across demographic groups. Home ownership rates differ by age and socioeconomic status. While renters may benefit if the policy helps them enter the property market, rising prices and other barriers may limit this impact. Additionally, a significant portion of renters, around 25%, are content with renting and have no plans to buy, reducing the policy's relevance for them. Investors and existing homeowners may benefit most, potentially undermining the policy's equity goals. On the other hand, if the policy encourages new housing construction, it could increase supply and help reduce both property and rental prices, offering indirect benefits to renters.

The fiscal implications of reducing stamp duty are also significant. Since the policy only affects properties that are bought and sold, its reach is limited compared to broader tax reforms. It may also shift financial burdens to future generations due to increased deficits or reduced surpluses, raising concerns about intergenerational equity. While fiscal policy can be precisely targeted to specific groups or issues, it often faces implementation lags that delay its impact.

Monetary policy, particularly a reduction in the cash rate, is another expansionary tool used to stimulate economic activity. A cut of 50 basis points – from 2.0% to 1.5% – would represent a strong response to low economic growth. With interest rates already trending downward, such a move would signal serious concern about subdued economic activity and the need for intervention.

Lower interest rates reduce the cost of borrowing, encouraging households and businesses to spend and invest more, which boosts aggregate demand. However, the benefits are not evenly distributed. Renters without mortgages do not benefit directly, while homeowners with mortgages enjoy lower repayments. Savers, including retirees and those saving for a home, may be disadvantaged by lower returns on their savings. A weaker Australian dollar, resulting from lower interest rates, can make exports more competitive but may also increase the cost of imports.

There are also concerns about the effectiveness of monetary policy when interest rates are already low. Although it can influence economic behaviour relatively quickly, it is a blunt instrument that affects the entire economy rather than targeting specific groups or issues. This lack of precision can limit its usefulness in addressing targeted challenges like housing affordability.

Both fiscal and monetary policies have strengths and weaknesses. Fiscal policy, through stamp duty reduction, offers targeted support for housing affordability but raises concerns about equity and long-term fiscal sustainability. Monetary policy has a broader reach and can stimulate aggregate demand more quickly, but it lacks the ability to address specific

socioeconomic issues directly. Given the complexity of the housing market and the uneven distribution of policy impacts, a balanced approach that combines both fiscal and monetary measures may be the most effective strategy for promoting sustainable economic growth and addressing housing affordability in Australia.

Extended response mark breakdown

Marking guide element	Example in response
1 mark	
Fiscal policy (stamp duty reduction)	Fiscal policy, specifically the reduction of stamp duty by the government
Monetary policy (decrease in the cash rate)	Monetary policy, involving a decrease in the cash rate by the Reserve Bank of Australia (RBA)
3 marks	
Identify the fiscal policy stance as expansionary	Reducing stamp duty represents an expansionary fiscal policy stance
Change in the budget outcome as a result	It decreases government revenue and either increases the budget deficit or reduces a surplus
Link between expansionary policy and economic growth	This approach is intended to encourage new home purchases by making property transactions more affordable
9 marks	
Impact of stamp duty change on renters and the rental market (3 marks)	Renters may find this policy beneficial, especially if it incentivises them to enter the property market, but barriers such as rising property prices could limit its impact
Impact of stamp duty change on home owners and the housing market (3 marks)	Existing home owners seeking investment properties may be the primary beneficiaries of the policy, potentially undermining its equity goals
Explanation of equity issue in this policy option (1 mark)	25% of respondents are satisfied with renting and do not intend to purchase a home, reducing the policy's relevance for a significant portion of the population
Impact of policy on the budget deficit/surplus (1 mark)	This policy would shift financial burdens to future generations due to increased deficits or reduced surpluses, raising concerns about intergenerational equity
Weaknesses and strengths of using fiscal policy (1 mark)	Fiscal policies also face implementation lags, though they can be precisely targeted to specific economic issues or groups

Continued

Continued

Marking guide element	Example in response
3 marks	
Identify the monetary policy stance as expansionary	Monetary policy – specifically a reduction in the cash rate – is another expansionary approach aimed at stimulating economic activity
Evidence of recent cash rate cuts and monetary policy and the significance of the 50 basis point change	A significant reduction of 50 basis points, from 2.0% to 1.5%, represents a bold move to address low economic growth. Cash rates have been trending downward, with this cut surprising the market, highlighting concerns about subdued economic activity and the need for strong intervention
Link between expansionary policy and economic growth	By reducing the cost of credit, borrowing becomes more attractive for households and businesses, leading to increased consumption and investment. This increase in aggregate demand can drive economic growth
9 marks	
Change in cash rate impact on households – increase consumption and reduce costs of borrowing (1 mark)	By reducing the cost of credit, borrowing becomes more attractive for households ..., leading to increased consumption ...
Change in cash rate impact on business – increase investment and reduce costs of borrowing (1 mark)	By reducing the cost of credit, borrowing becomes more attractive for ... businesses, leading to increased ... investment
Change in cash rate on net exports (1 mark)	Lower interest rates also affect net exports by weakening the Australian dollar, making exports more competitive globally but potentially increasing the cost of imports
Impact on renters (1 mark)	Renters, who do not hold mortgages, gain no direct advantage through the cash flow mechanism
Impact on home owners (1 mark)	Home owners with mortgages benefit from reduced repayments
Impact on retirees (fixed incomes) (1 mark)	Savers, including retirees and those saving for a home, face disadvantages due to lower returns on savings
Explanation of equity issue in this policy option (1 mark)	The benefits are not evenly distributed
Weaknesses and strengths of using fiscal policy (1 mark)	While monetary policy can influence economic behaviour relatively quickly compared to fiscal policy, it is a blunt instrument, impacting the entire economy rather than targeting specific issues or groups
Consideration that cash rate is already significantly low and may not be impactful at this level (1 mark)	Questions remain about the effectiveness of monetary policy in stimulating consumption when rates are already at historically low levels

Continued

Continued

Marking guide element	Example in response
3 marks	
Summarise comparison of overall impacts of fiscal versus monetary policy option (2 marks)	Both fiscal and monetary policy options have merits and limitations. Fiscal policy, through a reduction in stamp duty, offers targeted support for housing affordability but raises concerns about equity and fiscal sustainability. Monetary policy, with its broader economic reach, can stimulate aggregate demand more effectively but lacks precision in addressing specific socioeconomic issues
Conclusion drawn about policy choice based on weight of evidence and analysis (1 mark)	Given the context of housing affordability and the distributional impacts of each policy, a carefully balanced approach that combines elements of both fiscal and monetary measures may be the most effective strategy for achieving sustainable economic growth and addressing key challenges within the Australian economy

The following practice external assessment can be downloaded on Nelson MindTap



Resource
12.1 Practice
external
assessment

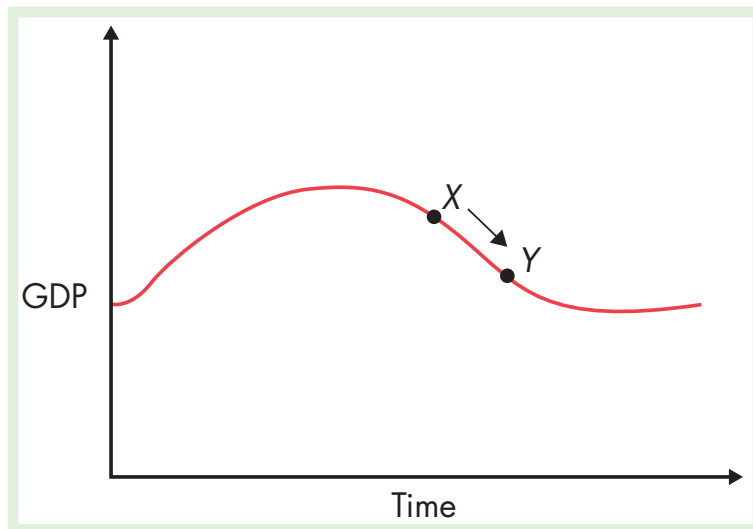
Section 1: Multiple-choice questions

- 1 Which of the following statements best describes the historical significance of aggregate supply policies in contributing to Australia's economic growth and development?
 - A The Prices and Incomes Accord primarily led to increased inflation, while financial industry deregulation had no significant impact on economic growth.
 - B The floating of the exchange rate stabilised the economy, and the Prices and Incomes Accord effectively controlled inflation while promoting wage moderation.
 - C Financial industry deregulation decreased competition in the banking sector, leading to stagnation in economic growth and development.
 - D The Prices and Incomes Accord focused solely on reducing government spending, while the floating exchange rate had no effect on international trade.
- 2 During the recovery phase of the economic cycle, which of the following scenarios best illustrates the impact of monetary policy on aggregate demand and the government's economic objectives?
 - A The Reserve Bank of Australia lowers interest rates, which encourages borrowing and spending by households and businesses, leading to an increase in aggregate demand.
 - B The Reserve Bank of Australia implements a quantitative easing policy, which increases the money supply and lowers long-term interest rates, resulting in higher investment and consumer spending.
 - C The Reserve Bank of Australia introduces forward guidance to signal future monetary policy intentions, which influences expectations and encourages businesses to increase investment due to anticipated economic stability.
 - D The Reserve Bank of Australia raises the cash rate to strengthen the Australian dollar, making imports cheaper and reducing inflationary pressure, which impacts trade balances and overall demand.
- 3 Which of the following scenarios best illustrates the impact of different monetary policy stances on aggregate demand and the Australian Government's economic objectives of sustainable growth and stability?
 - A In response to rising inflation, the Reserve Bank of Australia raises interest rates, leading to reduced consumer spending and investment, which subsequently lowers aggregate demand and helps stabilise prices.
 - B The Reserve Bank of Australia implements a quantitative easing program to lower interest rates, stimulating aggregate demand through increased borrowing, but causing a significant depreciation of the Australian dollar, which leads to external instability.
 - C The Reserve Bank of Australia maintains a neutral monetary policy stance while introducing fiscal stimulus through government spending, resulting in increased aggregate demand and sustainable economic growth without affecting inflation.
 - D The Reserve Bank of Australia cuts interest rates to boost aggregate demand, resulting in higher inflation and a trade surplus, which contradicts the objective of internal stability.

Chapter 12

- 4 Which of the following scenarios best illustrates the application of the production-possibilities curve (PPC) and the long-run aggregate supply (LRAS) curve in the context of microeconomic policies?
 - A A government initiative to improve education and skills training leads to a more skilled workforce, shifting the LRAS curve to the right while the PPC remains unchanged.
 - B A natural disaster reduces the available resources for production, causing a movement along the PPC and a leftward shift in the LRAS curve.
 - C A tax increase on corporations decreases investment, resulting in a movement along the PPC towards a point of inefficiency, without affecting the LRAS curve.
 - D An increase in subsidies for renewable energy technology allows for greater production capacity, shifting both the PPC and the LRAS curve outward.
- 5 Which of the following examples from the 2022 Australian federal budget best illustrates the use of discretionary fiscal policy?
 - A The government increased funding for infrastructure projects, aiming to create jobs and stimulate economic growth during the recovery from the COVID-19 pandemic.
 - B The government automatically adjusted welfare payments in line with inflation to support low-income households, ensuring that they maintain their purchasing power.
 - C The government extended the existing JobSeeker payment for unemployed individuals without introducing new eligibility criteria or benefit levels.
 - D The government maintained the existing tax rates and expenditures, resulting in a balanced budget without making any new policy changes.
- 6 Which of the following is an example of a time lag when policy makers decide on a fiscal course of action?
 - A the time between the removal of government subsidies and the onset of higher unemployment
 - B the time taken for the government to reduce the company tax to encourage business investment
 - C the time between the government authorising additional health expenditure and the building of a hospital
 - D the time taken for the government to decide how best to reduce the economic impact of a natural disaster
- 7 What are the Reserve Bank of Australia's main objectives in implementing monetary policy?
 - A price stability and full employment
 - B price stability and a reduction in national debt
 - C full employment and an increase in national savings
 - D full employment and a more equal distribution of income

- 8 The graph below shows that the Australian economy has moved from point X to point Y. Which policy mix is the most appropriate for this economy?



- A The Reserve Bank of Australia buys government securities, and the federal government implements an expansionary budget.
 - B The Reserve Bank of Australia sells government securities, and the federal government implements an expansionary budget.
 - C The Reserve Bank of Australia buys government securities, and the federal government implements a contractionary budget.
 - D The Reserve Bank of Australia sells government securities, and the federal government implements a contractionary budget.
- 9 Which one of the following is an example of discretionary budgetary policy?
- A a decrease in the cash interest rate
 - B a decrease in the company tax rate from 30 per cent to 29 per cent
 - C an increase in welfare payments due to a rise in cyclical unemployment
 - D lower revenue from a minerals resource rent tax due to falling commodity prices
- 10 Which of the following policies is most likely to result in a decrease in demand inflation and an increase in cost inflation?
- A a decrease in non-discretionary government expenditure and loose monetary policy
 - B an increase in non-discretionary government expenditure and increased import tariffs
 - C an increase in discretionary government expenditure and a reduction in subsidies to producers
 - D a decrease in discretionary government expenditure and a depreciation of the domestic currency

Chapter 12

Section 2: Short response questions

- 11 Explain how a microeconomic policy could be used to improve productivity. Draw a production-possibilities curve diagram to support your explanation. (8 marks)
- 12 From the information in Sources 1 to 3, what was the most likely fiscal policy stance of the federal government in 2013–14? Draw the economic cycle to support your answer. (8 marks)

Source 1: Labour market conditions

Some labour market indicators have improved a little this year, but overall conditions remain subdued. Employment has grown by around 1 per cent over 2014 to date, roughly keeping pace with population growth.

Source 2: Consumption

More recent data suggest that consumption growth was moderate in the June quarter with retail sales volumes declining by 0.2 per cent ...

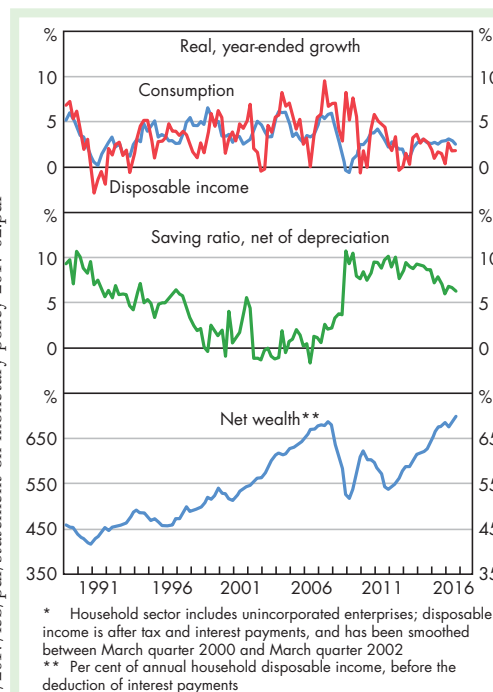
Source 3: Economic growth

Growth of the Australian economy picked up over the second half of 2013 and early 2014, driven in part by a large increase in resource exports.

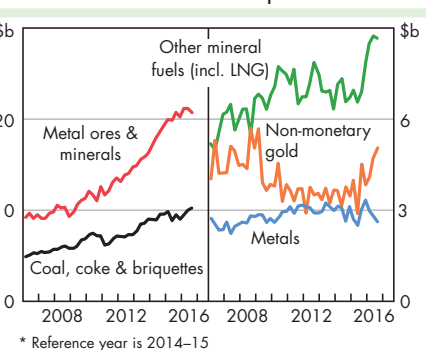
Source: 3. Domestic Economic Conditions, Statement on Monetary Policy – August 2014. © Reserve Bank of Australia, CC BY 4.0.

- 13 Use Sources 4 to 6 to explain why the federal government intervened in the economy in the fourth quarter of 2016. (8 marks)

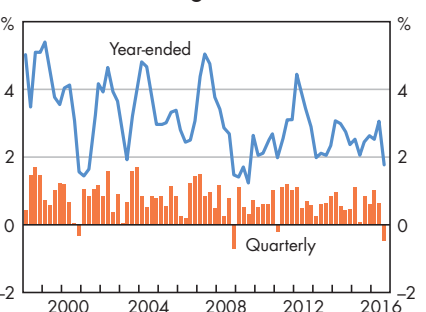
Source 4: Household income, consumption and wealth*



Source 5: Resource export volumes*



Source 6: GDP growth



Reserve Bank of Australia [February, 2017]. Statement on Monetary Policy, Graph 3.4, page 29. Licensed under a CC BY 4.0. <https://www.rba.gov.au/publications/smp/2017/feb/pdf/statement-on-monetary-policy-2017-02.pdf>

Reserve Bank of Australia [February, 2017]. Statement on Monetary Policy, Graph 3.4, page 29. Licensed under a CC BY 4.0. <https://www.rba.gov.au/publications/smp/2017/feb/pdf/statement-on-monetary-policy-2017-02.pdf>

Reserve Bank of Australia [February, 2017]. Statement on Monetary Policy, Licensed under a Creative Commons BY 4.0 <https://www.rba.gov.au/publications/smp/2017/feb/pdf/statement-on-monetary-policy-2017-02.pdf>

Section 3: Extended response question

Use Sources 7 to 16 to analyse the impact of a government proposal to increase childcare subsidies on the RBA's consideration of monetary policy, *ceteris paribus*. (28 marks)

Source 7

The new policy would subsidise the significant costs of childcare for families. The recommendation is to provide three days of free childcare for low-income families, and all other families would pay less than \$20 a day per child for childcare.

Source 8

Childcare cost is the reason most nominated by mothers for not doing more hours of paid work. These costs bite more in Australia than elsewhere: full-time net childcare costs absorb 18 per cent of household income for a typical Australian couple, compared to the OECD average of 10 per cent.

Source 9

In 2020–21, there were 250 000 women who wanted a job or to work more hours but were unavailable. Greater female labour force participation could boost aggregate output and productivity. This is especially important in a tight labour market where labour supply is a constraint.

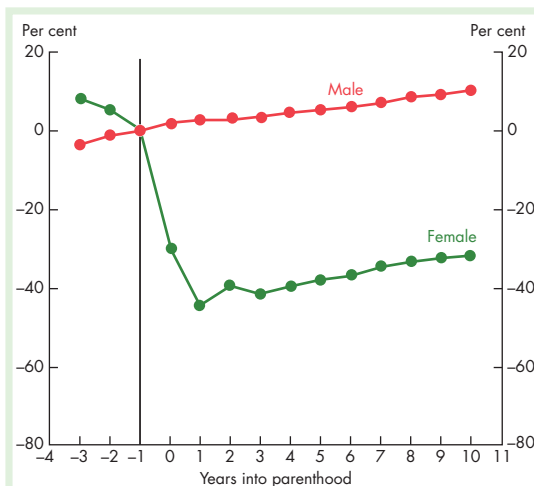
Source 10

Most families would be considerably better off under this proposal (and no families worse off). We estimate this would lead to a 13 per cent increase in hours worked by second-earners with young children and boosting lifetime earnings for a typical mother by about \$150 000.

Source 11

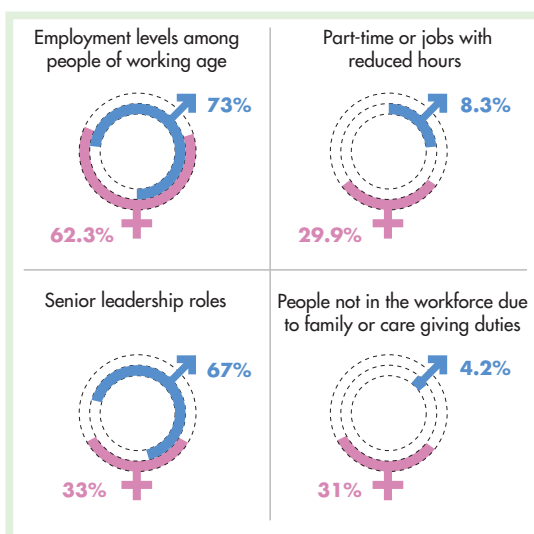
The estimated cost to the government would be \$7 billion a year. It's estimated there is around \$3 billion in additional annual tax revenue and around \$7 billion in annual GDP increases from parents working more hours.

Source 12: Difference in income between males and females (%)



© Commonwealth of Australia

Source 13: Men and women on the labour market

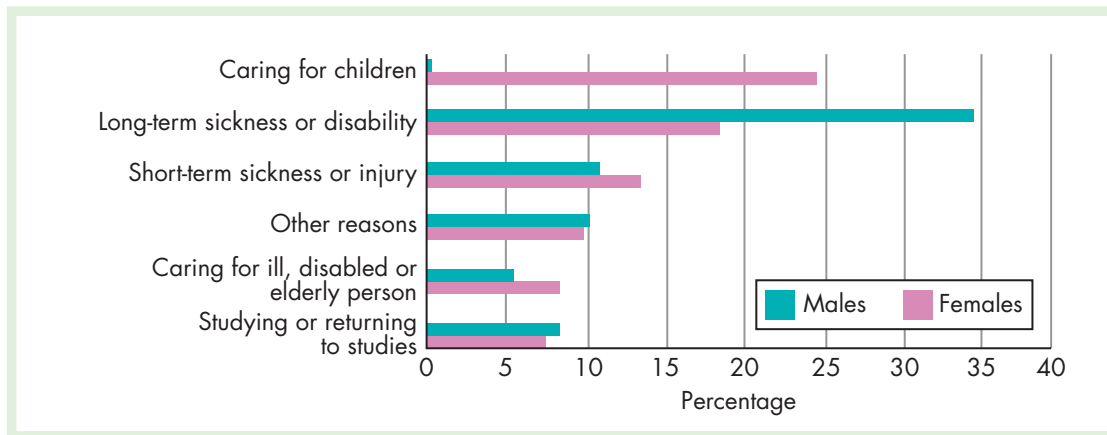


Chapter 12

Source 14: Labour market participation rates (%)

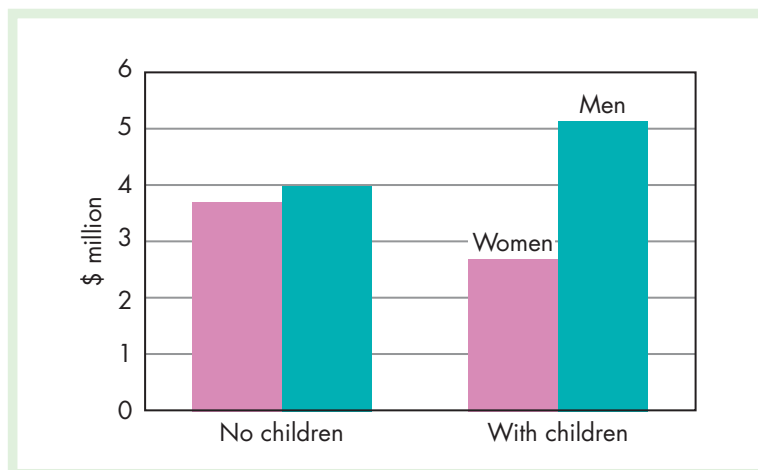
Age (years)	Females			Males		
	Employed	Unemployed	Not in labour force	Employed	Unemployed	Not in labour force
20–24	83	2	15	87	2	11
25–34	70	3	27	90	2	8
35–44	77	2	21	91	2	7
45–55	85	2	13	87	3	10

Source 15: Main reason not available to start a job or take on more hours



Source: Australian Bureau of Statistics. Media release 'Childcare still largest barrier to female participation' 4/11/2022. <https://www.abs.gov.au/media-centre/media-releases/childcare-still-largest-barrier-female-participation>

Source 16: The earnings gap between men and women with children: mean expected lifetime income for someone aged 25



Practice external assessment

Resources:

12.1 Practice external assessment

 Nelson MindTap

To access resources above, visit
cengage.com.au/nelsonmindtap



Glossary

Absolute advantage: the ability of a nation to produce commodities more efficiently than another nation

Aggregate demand (AD): the level of expenditure on total production or output that is planned at various price levels

Aggregate supply (AS): the level of total production or output that producers plan to supply at various price levels

Allocative efficiency: where a country's productive resources are used in the economy in combinations that generate the maximum benefits for consumers and the nation

AUKUS: a security partnership between Australia, the UK and the USA, announced in 2021

Automatic stabilisers: those elements of non-discretionary fiscal policy that operate without the need for government action; that is, they automatically counterbalance changes in the level of economic activity

Autonomous expenditure: those forms of expenditure that are independent of the level of aggregate income; examples include investment expenditure because of technological change, government expenditure (such as a new school due to an election promise) or consumption increases due to demographic changes

Average propensity to consume: measures the proportion of total income that households spend on consumption rather than saving; it is calculated using this formula: total consumption (C)/total income (Y)

Average propensity to save: measures the proportion of total income that households save rather than spending on consumption; it is calculated using this formula: total savings (S)/total income (Y)

Balance of payments: the summary of a nation's payments to, and receipts from, the rest of the world over a year; it divides transactions into two broad accounts: the current account, and the combined capital and financial account. The current account captures the net flow of money that results from Australia engaging in international trade, while the combined capital and financial account captures Australia's net change in ownership of assets and liabilities; these two broad accounts are often referred to as the 'two sides' of the balance of payments

Balance of trade: the difference between the value of exports and imports

Basis point: one basis point (bp) equals 1/100th of 1 per cent or 0.01 per cent, so 100 basis points (bps) is

equal to 1 percentage point; if an interest rate were to increase from 2 per cent to 3 per cent, it is said to have risen by 100 bps or 1 percentage point

Basket of currencies: a method for determining exchange rates that uses a selection (basket) of currencies in a managed exchange rate system instead of fixing the value of one currency to one other currency, thereby minimising the effects of any fluctuations

Belt and Road Initiative: a global infrastructure and economic development strategy launched by China in 2013

Bilateral trade agreement: a trade agreement negotiated between two countries

Bloc: a group of countries or organisations that form an alliance to promote common economic, political or trade interests

Blockchain: a technology that works like a digital notebook, where information is stored securely and shared across many computers; it keeps records of transactions, such as buying and selling things, in a way that no one can easily change; each record, called a 'block', is connected to the one before it, creating a 'chain' of blocks

Bonds: fixed-income securities that represent a loan made by an investor to a borrower (typically a government or corporation); the issuer agrees to pay periodic interest (coupon payments) and return the principal amount at maturity

Boom: the phase of the economic cycle where the general level of economic activity is above average; it is characterised by full employment and inflationary pressure due to demand being in excess of supply

Budget: a statement of the government's estimated revenue and expenditure for the coming financial year

Budget deficit: a negative budget balance; when receipts fall short of expenditures

Budget surplus: a positive budget balance; when receipts exceed expenditures

Capital: the factor of production comprising the stock of human-made resources used to create further goods and services

Capital account: a record that includes capital transfers and the acquisition/disposal of non-produced, non-financial assets between residents and non-residents

Capital and financial account: the record of the movement of capital funds between a nation and the rest of the world; made up of two sub-accounts: the capital account and the financial account

Capital and financial account items: inflows and outflows of money resulting from foreign investment, foreign lending and borrowing in the international financial markets

Capital flow: the movement of money for the purpose of investment, trade or business production

Capital-intensive method of production: a production process that predominantly uses capital rather than labour

Capital mobility: the ability to move private funds across national boundaries in pursuit of higher returns

Capital productivity: a focus on the relationship between the capital resources used in a production process and the output achieved, with the goal of seeking to maximise output per capital goods hour

Cash rate: the interest rate that banks pay to borrow funds from other banks on overnight loans in the short-term money market

Cash rate target: a level of the cash rate (interbank overnight rate) that the Reserve Bank of Australia specifies as the target it seeks to achieve for transactions in the short-term money market; this rate applies until the next meeting of the Reserve Bank of Australia Board

Channels of monetary policy transmission: the different paths through which a central bank's monetary policy decisions are passed on – through financial markets, to businesses and households

Circular flow of income model: a model of the economy, based on income flows from one sector of the economy to another in a circular motion, which explains levels of national income and output, and how changes in these occur

Coincident indicator: an indicator that provides information regarding changes in the economy at the same time as they occur in the economic cycle

Comparative advantage: the ability of a nation to produce a product at a lower opportunity cost of production than another nation

Competition policy: policy aimed at making markets more competitive and preventing the abuse of market power

Competitive advantage (of a firm): a characteristic specific to a firm that makes it competitive in the marketplace; for example, a lower-cost producer, an established brand name or an innovative product

Competitive advantage (of a nation): trade advantage obtained through the capacity of a nation's industries to innovate and upgrade

Composite index indicator: an index constructed from combining a set of leading, coincident and lagging indicators

Consumer price index (CPI): a measure of the average change in the price of a selected range (basket) of consumer goods and services

Consumption effect: the effect of protection on a nation's consumption patterns

Contestability theory: the idea that the removal of barriers preventing new firms from entering, or threatening to enter, a market would make markets more contestable and therefore competitive

Contraction: the slowing down in aggregate output and income levels due to a rise in uncertainty; also known as a 'downswing'

Core competencies: characteristics specific to a firm that give it a sustainable competitive advantage

Cost structure: the overall framework within a country that contributes to the final price of a commodity produced by that country

Cost-push inflation: inflation that results from rising production costs

Credits: payments received by a nation from the rest of the world

Crowding out: where increased government borrowing leads to higher interest rates, which can reduce private sector investment; this happens because when the government borrows more, it competes with businesses and individuals for available funds, making borrowing more expensive for them; as a result, private investment may decline, potentially slowing economic growth

Currency: the basic monetary unit of a country

Currency appreciation: an increase in the value of a currency relative to other currencies under a floating exchange regime

Currency depreciation: a decrease in the value of a currency relative to other currencies under a floating exchange regime

Current account: the record of day-to-day financial transactions involving the trade of goods and services between a nation and the rest of the world

Current account deficit: the amount by which credits in the current account are less than debits

Current account items: inflows and outflows of money resulting from buying and selling goods and services, and from earning income in the international marketplace

Current account surplus: the amount by which credits in the current account are greater than debits

Cyclical components of fiscal policy: elements of fiscal policy that are caused by changes in the level of economic activity that impact the level of national income; these are non-discretionary elements of fiscal policy

Cyclical unemployment: unemployment due to a downturn in the economic cycle

Debits: payments by a nation to the rest of the world

Debt financing: the process of raising funds for business or government activities by borrowing, typically through issuing bonds, taking loans or other credit instruments

Deficit/surplus balances: differences between international receipts and payments

Deflation: the sustained decrease in the general level of prices over a period of time, measured by a decrease in the consumer price index

Deflationary gap: the amount by which the equilibrium level of production and income falls short of the full employment level

Demand-pull inflation: inflation that results from excessive demand

Demand-side/supply-side shocks: sudden and unexpected events that cause a significant shift in the demand/supply for goods and services in an economy

Deregulation: the relaxation or removal of government restrictions on the free operation of markets

Direct investment: the creation of new assets and liabilities in a foreign country, such as setting up a production facility or owning more than 10 per cent of a company's shares in a foreign country, giving the investor significant influence over the operation of the enterprise

Direct tax: a tax paid directly by the individual or business it is levied on, such as income tax or company tax

Discretionary fiscal policy: deliberate changes to fiscal policy instruments to influence the level of aggregate demand; also referred to as 'structural components of the budget'

Disinvestment: the process of reducing or withdrawing investments in assets, businesses or sectors; this can occur when a government sells off stakes in public enterprises

Distribution of income: the way that a country's income is spread among individuals within various socioeconomic groups

Domestic consumption: goods and services consumed in the country where they are produced

Dumping: the sale of a product in a foreign market at less than production cost

Dynamic efficiency: the ability of an economy to respond to changing consumer demands by reallocating resources to new industries or production processes

Ease monetary policy: to adopt a more expansionary stance by lowering the cash rate to stimulate growth

Economic cycle: alternate but irregular periods of prosperity and recession of an economy; also known as a 'business cycle' or 'trade cycle'

Economic growth: a sustained increase in the productive capacity of an economy over a specific period of time (usually one year), generally indicated by the increased availability of goods and services in the economy

Economic model: the simplification of a complex situation in the real world, usually represented in the form of a diagram; for example, the circular flow of income model, a graph or a mathematical equation

Economic objectives: the most important goals of government economic policy

Economic policy: a range of priorities and objectives introduced by government to assist in the managing of an economy; economic policy may change over time based on which political party is in power and in response to broader changes in the global economy

Economic problem: the problem of deciding or choosing how to satisfy unlimited wants with limited resources

Economies of scale: cost efficiencies that are derived by producing a large volume of standardised products

Effective rate of protection: the actual rate of protection given to import-competing industries

Embargo: a total ban on either the import or export of a commodity

Employed person: a person who works at least one hour per week

Enhanced resource endowments: resources of a nation that are developed by investment, such as human capital and infrastructure

Equilibrium: a balanced situation from which there is no tendency to change; for example, the level of output or income brought about by conditions in an economy

Equitable distribution of income and wealth: a fair (not necessarily equal) final distribution of personal income, so that all can access basic goods and services

Equity finance: company funds sourced from the selling of shares in a company

Exchange rate: the value of the currency of a nation expressed in terms of the currency of another nation

Exchange risk: the risk encountered by traders because of floating exchange rates

Exchange Settlement (ES) balances: funds held by financial institutions in their accounts at the Reserve Bank of Australia; these balances are primarily used to settle interbank transactions and help ensure the smooth functioning of Australia's payment system

Expansion: the acceleration in aggregate output and income levels due to a rise in consumer and business confidence; also known as an 'upswing'

Expenditure: outflows of money from one sector of an economy to another

Export-orientation strategies: strategies to encourage the expansion of domestic production for export markets

Export price index: a statistical measurement used by economists to produce an index number used to monitor fluctuations in export prices

Export promotion: assistance provided to domestic firms enabling them to locate and obtain foreign markets for their goods and services

Exports: goods that a nation sells to foreign nations; in Australia, we export significant quantities of natural resources

External debt: a broader term than 'foreign debt' – external debt includes all debt a country owes to foreign entities (government, businesses or individuals borrowing from foreign sources); it encompasses both public (government) and private (business) foreign debt

External policy: measures undertaken by governments to influence activity in the current account or the capital account

External (foreign) sector: that sector of the circular flow of income model that identifies economic influences external to the domestic economy

External stability: the situation in which there are no unwanted movements of foreign reserves in the balance of payments

Factor endowment: the supply of the factors of production (land, labour, capital and enterprise) that exists in a country

Fair trade: trade of exports and imports in which government actively intervenes to offset what is considered to be unfair competitive practices by foreigners; for example, the abuse of monopoly power, exploitation of workers or excessive import barriers

Financial account: a record that shows the inflows (credits) and outflows (debits) of debt and equity relating to Australia's external liabilities

First-mover advantages: the competitive edge gained by being the first company to enter a market

Fiscal policy: refers to government decisions about taxation and spending that influence aggregate

demand; can be discretionary or non-discretionary (automatic stabilisers)

Fiscal policy stances: the overall effect of a budget on the level of economic activity in an economy

Floating exchange rate: the value of a currency determined by the forces of supply and demand in the foreign exchange market

Floating exchange regime: a system where a country's currency value is determined by supply and demand in the foreign exchange market, without direct government control

Foreign debt: money borrowed from foreign lenders, such as foreign banks

Foreign exchange control: a limit on imports achieved by the central bank restricting the foreign exchange made available for import transactions or altering the price of the foreign exchange

Foreign exchange (forex) market: a market where international currencies are bought and sold

Foreign investment: funds invested in an economy by the rest of the world

Foreign Investment Review Board (FIRB): a federal body established to examine foreign investment proposals

Foreign reserves: assets held by a country's central bank in foreign currencies, including cash, government bonds and gold; they are used to stabilise the national currency, manage inflation and support international trade

Forward-exchange facilities: financial agreements that allow businesses or investors to lock in an exchange rate for a future date; they help manage the risk of currency fluctuations in international trade and investment

Free-enterprise economy: an economic system where businesses and individuals are free to produce, sell and compete with little government intervention; prices and resources are mostly controlled by supply and demand in the market

Free trade: trade of exports and imports in which government exerts little influence on the decisions of private firms and individuals; competitive market forces determine trade patterns

Free trade agreement: an agreement between nations to allow the unimpeded passage of goods between the nations

Frictional unemployment: unemployment related to time lags involved in the transition between jobs

Full employment: where everyone who wants a job has a job; note, however, that there will always be some level of unemployment

Futures market: the market in which contracts are written for the purchase or sale of commodities on a date specified in the future

GDP gap: the difference between actual and potential GDP

Gini index (or Gini coefficient): a measure of income inequality within a population, ranging from 0 (perfect equality) to 1 (perfect inequality), where higher values indicate greater income disparity

Global financial system: the global system of integrated national financial markets and institutions that provides the means for cross-border financial transactions

Globalisation: the increasing interconnectedness and interdependence of economies, businesses and people across the world, driven by trade, investment, technology, and the movement of people and ideas

Globalisation of markets: the convergence of tastes and preferences across the markets of the world, and global acceptance of standardised products

Globalisation of production: the dispersal of the phases of production around the world by a firm to take advantage of national differences in production efficiencies

Government business enterprise: a business owned and operated by the government that provides goods or services to the public while aiming to make a profit; examples in Australia include Australia Post and NBN Co

Government procurement policies: government policies that give preference to local producers when purchasing supplies and equipment

Gross domestic product (GDP): the total value of final goods and services produced within an economy in a specified period of time

Gross foreign debt: the total of Australia's overseas borrowings

Headline rate of inflation: the percentage change in prices over time, as measured by the consumer price index; also referred to as the 'consumer inflation rate'

Hedge: a financial strategy used to reduce or manage risk by making an investment that offsets potential losses

Hidden unemployment: refers to individuals who are not actively seeking work, but would be willing and available to work under the right conditions

Host country: a country where a company that is based in another country has business activities

Human capital: the knowledge, experience and skills of individuals, in which nations must invest if they are to advance

Import licensing: a procedure used to limit the number of importers

Import price index: a statistical measurement used by economists to produce an index number used to monitor fluctuations in import prices

Import quota: the specification of how much of a commodity may be imported into a country

Import substitution: the practice of encouraging the establishment of domestic industries to produce commodities presently imported

Import substitution strategies: strategies aimed at replacing manufactured consumer imports with domestic production from infant industries that are protected from international competition

Imported inflation: inflation that results from an increase in the price of imports

Imports: goods that enter a nation from overseas; in Australia, we import significant quantities of petrol, cars and machinery

Incidence of unemployment: the extent to which different groups of people experience unemployment

Income: inflows of money to one sector of an economy from another

Indirect tax: any tax on aspects of economic activity other than income; for example, goods and services tax, carbon tax or customs duty; these can be passed on to others by the firm on which the tax is levied

Infant industry: an industry in its early stages of development

Inflation: the sustained increase in the general level of prices over a period of time (usually one year), measured by an increase in the consumer price index

Inflation expectations: the opinion that households and firms have of the future rate of inflation, which is then factored into their saving, purchasing and investing decisions; these are heavily influenced by the rates experienced in the past

Inflation rate: the percentage change in prices over time, usually one year

Inflation target: the band of inflation rates that a central bank sets as the target range for its implementation of monetary policy; in Australia, this is 2–3 per cent, on average, over the medium term

Inflationary gap: the amount by which the equilibrium level of production and income exceeds the full employment level

Infrastructure: the basic systems and structures that help a society function, such as roads, bridges, power lines and Internet networks

Injection: inflow of income into the circular flow of income model

Innovation: the development of a new idea, technology, device, product or method of production

Inside lag: the time it takes to recognise that the state of the economy indicates the need to use counter-cyclical macroeconomic policy, decide on the appropriate policy response and implement it

Interdependence of national economies: linkage between events in one economy and outcomes in another by means of cross-border transactions and international flows of trade, capital and technology

Interest rate corridor: a system used by the Reserve Bank of Australia to control short-term interest rates, particularly the cash rate, by setting upper and lower boundaries for interbank lending rates

Interest rates: the cost of borrowing or reward for lending money, expressed as a percentage of the total amount borrowed or loaned

Intergenerational equity: the just sharing of economic benefits and costs between present and future generations

Intermediate goods: products used as inputs in the production of final goods and services; for example, steel for cars

Internal balance: a state of the economy in which there is full employment and acceptable levels of inflation

Internal stability: a state of the economy in which there is full employment and acceptable levels of inflation

Intra-company trade: trade between affiliates of the one organisation; for example, between a home-based subsidiary and a foreign-based subsidiary of the same company

Intra-industry trade: trade that occurs when a nation imports and exports the same good simultaneously

Investment: the purchase of capital equipment; that is, machines, equipment, factories etc. that firms need to enable them to produce

Key economic indicators: economic variables, such as unemployment rate or GDP, whose patterns of fluctuation portray in a reasonably consistent and predictable way the general course and level of aggregate economic activity

Keynesian theory: economic theory based on the ideas of John Maynard Keynes, aimed at analysing and understanding the macroeconomic forces that determine aggregate production, income and employment, and providing ways of managing economic activity during a recession or depression through demand management

Labour force: the total number of people, over the age of 15, currently employed plus the total number of people, over the age of 15, currently unemployed

but actively engaged in seeking a job; also known as 'working population'

Labour force underutilisation: refers to the percentage of people in the workforce who are not fully using their skills, time or potential in employment; it gives a broader picture of employment issues than the unemployment rate

Labour-intensive method of production: a production process that predominantly uses labour rather than capital

Labour productivity: a focus on the relationship between the labour resources used in a production process and the output achieved, with the goal of seeking to maximise output per labour hour

Lagging indicator: an indicator that provides information regarding changes in the economy after they occur in the economic cycle

Law of one price: a measure of economic integration based on the theory that the prices of similar products traded in linked markets should converge to the one price

Leading indicator: an indicator that provides information regarding changes in the economy before they occur in the economic cycle

Leakage: outflow of expenditure from the circular flow of income model

Liquidity: how easily an asset can be converted into cash without losing value; cash is the most liquid asset

Location economies: production and marketing conditions of a location that a firm can access to give it a competitive advantage

Long-term unemployed: people unemployed for 52 weeks or more

Macroeconomic strategy/policy: measures undertaken by governments to influence broad variables in the economy, such as consumption or investment

Marginal propensity to consume (MPC): the proportion of an increase in income that is spent on consumption

Marginal propensity to save (MPS): the proportion of an increase in income that is saved, rather than spent

Microeconomic strategy/policy: measures undertaken by governments that focus on the operation of single decision-making units within the economy, such as the firm or the household

Microeconomics: the study of economic behaviour at the level of the individual units of an economy; it focuses on the factors affecting the decisions made by individuals, firms and governments about the allocation of resources and the prices of goods and services

Monetary financing: the direct funding of government spending by the central bank, typically through money creation rather than borrowing from the public or issuing bonds

Monetary policy: measures implemented through the Reserve Bank of Australia to bring about changes in aggregate demand by influencing money supply and interest rates

Monetary policy stance: the (intended) overall effect of the monetary policy setting on the level of economic activity in an economy

Multilateral trade agreement: a trade agreement negotiated among many countries

Multinational corporation (MNC): an enterprise operating in several countries but managed from one (home) country; generally, any company or group that derives 25 per cent of its revenue from operations outside of its home country is considered a multinational corporation

Multiplier process: a more than proportional change in the equilibrium level of national income resulting from a change in autonomous expenditure

Natural unemployment rate: the rate of unemployment when the labour market is in equilibrium; it includes frictional and structural unemployment

Nearshoring: the practice of relocating business operations or production to a nearby country rather than a distant one

Net capital inflow: the difference between the money coming into a country from foreign investments and the money leaving for investments abroad

Net foreign debt: gross foreign debt less Australian lending to overseas residents; this gives a more balanced view than gross foreign debt because it subtracts what Australia owns abroad (assets) from what it owes (liabilities)

Nominal GDP: the value of final output of an economy's goods and services expressed in current prevailing prices with no adjustment for the effects of inflation

Nominal tariff rate: a tariff applied to imported commodities as quoted in tariff schedules (official lists of rates applied to imported goods)

Nominal value: value expressed in current quantities and prices

Non-accelerating inflation rate of unemployment: the lowest unemployment rate that can be sustained without causing wages growth and inflation to rise; it helps economists gauge how much 'spare capacity' there is in the economy

Non-tariff barriers: barriers to trade other than tariffs; for example, quotas, licences and technical specifications

Open economy: any nation that trades with other nations (see also **Free trade**)

Open market operations: the buying and selling of second-hand government securities by the Reserve Bank of Australia in the short-term money market to implement monetary policy decisions

Optimum population: the ideal population for a nation or economy, judged by consideration of characteristics including population size, structure (age, gender, ethnic and cultural makeup, fertility and mortality rates), education, training and geographic distribution

Output: production of goods and services in an economy from combining land, labour, capital and enterprise

Outside lag: the time it takes for a policy measure to have its effect on the targeted economic variables and the level of economic activity

Paradox of thrift: the theory that increased savings represent a diminishing circular flow of income; as everyone tries to save an increasingly larger portion of their incomes, the nation becomes poorer instead of richer

Parent country: the country where a multinational corporation is primarily based and from where its major decisions are made

Participation rate: the percentage of the population over the age of 15 that is in the labour force

Percentage change: measures the degree of change over time relative to an initial value and is calculated as follows: $((\text{new value} - \text{initial value}) / \text{initial value}) \times 100$

Percentage point change: the absolute difference between two percentages, rather than a relative percentage change; for example, if the inflation rate rises from 5 per cent to 7 per cent, the increase is 2 percentage points

Phillips curve: a graph of the proposition that there is a trade-off between inflation and the unemployment rate

Political constraints: the limitations on government policy actions resulting from the need to tailor policies to win elections, retain popular support, gain passage of revenue and expenditure measures through the Senate, and maintain productive relationships with other nations

Portfolio investment: the purchase of less than 10 per cent of the shares in a foreign company to gain financial returns rather than to gain control of the business

Price elasticity: a measure of how much the quantity demanded or supplied of a good changes in response to a change in price

Price stability: a state of the economy in which there is little variation in prices; that is, there is low inflation

Primary products: raw materials or natural resources that are extracted

Private foreign debt: the part of Australia's foreign debt owed by private residents

Privatisation: the total or partial sale of a government business enterprise

Production effect: the effect of protection on a nation's production patterns

Productive efficiency: the ability of an economy to achieve the maximum quantity of output from a given quantity of productive resources

Productivity: output per unit of input per unit of time

Profit motive: the seeking of profit – the basic stimulus for economic activity in a free-enterprise economy

Progressive tax: a tax system in which the percentage of tax payable increases as income rises (as opposed to proportional tax, where the percentage remains constant, and regressive tax, where it decreases)

Proportional tax: a tax system where the tax rate remains the same, regardless of income level

Protection: any policy implemented by government to provide domestic producers with an artificial advantage over foreign competitors

Public foreign debt: the part of Australia's foreign debt owed by the government

Public–private partnerships (PPPs): agreements between governments and private companies to finance, build and operate projects

Purchasing power: the ability to buy goods and services with a given amount of money; it depends on income and inflation – when prices rise, purchasing power falls, meaning money buys less

Quality of life: the overall wellbeing of individuals according to their material living standards and a range of other considerations, such as health standards, education levels and happiness

Quarantine regulations: regulations to control the entry into a country of certain commodities considered to pose a degree of risk

Real GDP: the value of final output of an economy's goods and services adjusted for the effects of inflation

Real value: value in terms of purchasing power; that is, nominal value adjusted for price changes

Recession: the phase of the economic cycle where the general level of economic activity is below the economy's potential, also known as a 'trough'; it is characterised by high unemployment, reduced inflationary pressure, and low business and consumer confidence; a technical recession is said to have occurred when an economy experiences two successive periods of negative economic growth; a particularly severe and prolonged recession is referred to as a 'depression'

Redistribution of income and wealth: the reallocation of income and wealth using taxes and other means to transfer money and assets from one group in the economy to another

Regionalisation: the process of focusing economic, political or business activities within a specific geographic region rather than on a global scale

Regressive tax: a tax system in which the ratio of the tax to income is lower with large incomes than with small incomes

Regulatory failure: the idea that government regulation of markets is ineffective due to the costs involved in administration and compliance, regulatory capture, rent-seeking behaviour by firms, wastage of resources, higher consumer prices, and lack of competition and innovation

Relative scarcity: limited supply of a resource

Research and development: investment in technology to increase the capacity of firms through the development of new products, processes and services

Reserve assets: foreign currency, gold and other highly liquid assets held by a country's central bank to manage exchange rates, support the economy and stabilise the financial system

Reshoring: the process of bringing manufacturing or business operations back to a company's home country after previously offshoring them

Restricted choice: a limited range of commodities from which consumers may choose

Risk diversification: managing business risks by having multiple options, such as multiple sources of supplies, or selling in multiple markets; avoiding 'putting all one's eggs in the same basket'

Sanctions: restrictions or penalties imposed by one country (or group of countries) on another to influence its behaviour

Seasonal unemployment: unemployment due to the seasonal nature of some work

Self-sufficiency: the ability of a nation to produce sufficient products to meet its own needs from domestic sources

Short-term money market: the (cash) market that deals in short-term discount securities such as Treasury notes, bank bills and promissory notes; major participants in this market include the Reserve Bank of Australia, banks, superannuation funds, insurance companies, investment trusts, investment banks, building societies and large corporations

Specialisation: the specific use of resources in narrowly defined economic activities

Spot rate: the exchange rate quoted for a currency at a particular time

Stagflation: where inflation exists simultaneously with low levels of economic activity

Standard of living: a measure of lifestyle standards based on material and quantitative indicators, such as possessions, income, and education, health and housing standards

Structural change: industry-wide changes in the pattern of production that result in certain products, production processes and even industries disappearing while new ones emerge

Structural unemployment: unemployment that occurs when economic needs change, causing jobs themselves to change or disappear

Subsidiary: a company that is more than 50 per cent owned by another company, which is called the parent or holding company

Subsidy: a grant paid by governments to domestic producers to allow them to sell their products at less than marginal cost

Supply chain: the system of organisations, people, activities, information and resources involved in moving a product or service from supplier to consumer

Supply-side policies: government initiatives that target individual industries, seeking to improve their competitiveness by improving the efficiency and productivity of producers; these are also referred to as 'microeconomic reform policies'

Sustainable economic growth: a rate of growth that, if maintained correctly, should not create any significant economic problems for future generations; it sustains a nation's natural resources and the environment

Tariff: a tax imposed on imported commodities

Taxation: the revenue that a government obtains from economic activity and participants in that activity; it is a leakage from the circular flow of income

Taxation criteria: criteria for judging whether a tax is a good tax or not; criteria such as equity, efficiency and simplicity are suggested

Technical specifications: production or quality standards that are specific to a country, and therefore act as a protective device against imports

Terms of trade: a statistical concept that highlights the relationship between export prices and import prices

Terms of trade index: a statistical measurement used by economists to produce an index number used to monitor price fluctuations

Tighten monetary policy: to adopt a more contractionary monetary policy stance; this involves raising the cash rate to initiate a decrease in the level of economic activity

Time lag: the period from the time a macroeconomic problem is recognised to the time policy action is taken and has effect

Traceability (of supply chains): the ability to track the origin, movement and handling of goods and materials throughout the entire supply chain, from raw materials to the final product

Trade creation: trade that results when production is relocated from higher-cost countries to lower-cost countries within the trading bloc; this leads to a more efficient use of global resources, and trade is created as the products are imported from the lower-cost country

Trade diversion: trade that results when production is relocated from a lower-cost country external to the trading bloc to a higher-cost country within the trading bloc

Trade intensity: a measure of economic integration based on the ratio of trade (the sum of exports and imports) to output

Trade liberalisation: the process of reducing or removing barriers to trade – such as tariffs, quotas and import restrictions – to encourage free trade between countries

Trade policy: the policy of increasing economic activity, creating jobs and obtaining a fair deal for Australia in the international marketplace

Trade-weighted index: an index that measures the value of the Australian dollar against a basket of currencies, weighted according to the significance of each country's trade relationship with Australia

Transfer: the movement of scientific methods of production or distribution from one enterprise, institution or country to another

Transfer payments: payments from government to individuals and households in the form of cash social welfare payments, such as pensions, unemployment benefits, childcare subsidies and family allowances

Transfer price: the price charged for goods by one subsidiary of a multinational corporation to another subsidiary of the same company in another country

Transmission mechanism: the overall process through which changes to monetary policy flow through financial markets, influencing economic activity and inflation via various transmission channels

Transparency: laws and regulations that are clearly spelt-out, promptly and consistently enforced, and readily accessible

Trimmed mean inflation rate: a measure of inflation that excludes a certain percentage of the most extreme price changes (both highest and lowest) from the consumer price index

Underemployment: state of being underemployed; being in either a full-time or part-time job but on reduced work hours due to economic reasons; or being employed in a job that is inadequate with respect to the individual's current qualifications, skills or training

Underlying rate of inflation: the headline rate of inflation, excluding one-off or seasonal factors that cause short-term volatility in the prices measured by the headline rate (for example, changes in government

taxes, fluctuations in petrol prices or banana prices after a cyclone)

Unemployed person: a person who is actively but unsuccessfully seeking employment

Unemployment: state of being unemployed or not having a job

Unemployment rate: the percentage of the labour force that is unemployed

Unilateral retaliation: when a country takes independent action – such as imposing tariffs or sanctions – against another country in response to perceived unfair trade practices or policies, without waiting for international approval or agreements

Voluntary export restraints (VER): the voluntary restriction of exports to another country to a pre-specified amount

World Trade Organization (WTO): a multilateral organisation aimed at liberalising world trade and establishing a dispute settlement procedure

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