



Economics for the Real World

Units 3 & 4

Douglas Cave
Tony De Luca
Ron Hanmer

4th Edition



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About this series

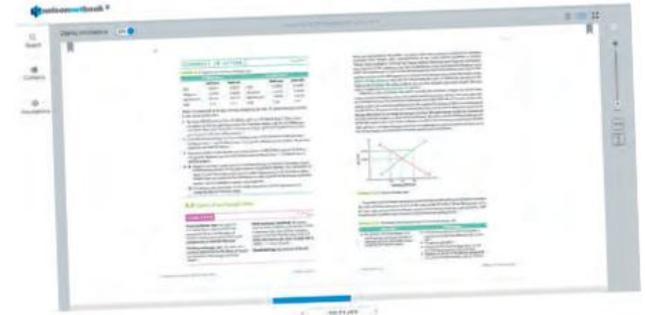
This new edition of *Economics for the Real World* has been fully updated for the QCAA Economics General Senior Syllabus implemented at Units 1 & 2 in 2019 and Units 3 & 4 in 2020. It comprehensively covers the syllabus and unit objectives using the inquiry approach valued in the syllabus, with integration of the underpinning factors throughout.

Student book

- The content reflects changing Australian and global economies, with current data, statistics and real-world applications.
- Updated 'Economics in action' sections provide realistic economics scenarios and allow students to learn through inquiry.
- Clear definitions of key concepts are provided throughout each chapter and included in a complete glossary.
- Updated reviews at the end of each chapter and a wealth of questions throughout ensure a steady development of knowledge and understanding.
- Questions and activities support the new assessment model and provide plenty of opportunity for revision and practice.
- Refreshed full-colour design allows for easy navigation through the topics.
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Introduction

Assessment in Units 3 & 4

Assessment in Units 3 and 4 will be similar to the types of assessment conducted in Units 1 and 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 2019 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, principle 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 Economics Syllabus.

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

FIGURE 1 Summative assessment for Units 3 & 4

Topic	Assessment type	Conditions	Weighting
1: The global economy (Unit 3)	Examination – Combination response	<ul style="list-style-type: none"> • 2 hours plus 15 minutes planning time 	25%
2: International economic issues (Unit 3)	Investigation – Research report	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 2 hours plus 15 minutes planning time • Length: 800–1000 words 	25%
2: Economic management (Unit 4)	External assessment: Examination – Combination response	<ul style="list-style-type: none"> • 2 hours plus 15 minutes planning time 	25%

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



QCAA Economics
syllabus

to gain the marks. The highest marks 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.

FIGURE 2 Summary of the ISMG

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

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.

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

FIGURE 3 Example of an instrument-specific marking guide

The student work has the following characteristics:	Marks
<ul style="list-style-type: none"> • <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
<ul style="list-style-type: none"> • <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
<ul style="list-style-type: none"> • <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
<ul style="list-style-type: none"> • <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
<ul style="list-style-type: none"> • <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</i> or unclear use of economic terminology. 	1–2
<ul style="list-style-type: none"> • does not satisfy any of the descriptors above. 	0

Similar tables will be used for every objective in all assessment instruments for your summative assessment results. You may consult the QCAA Economics 2019 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 2 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 to eight short response items that assess your ability to comprehend (Objective one).

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

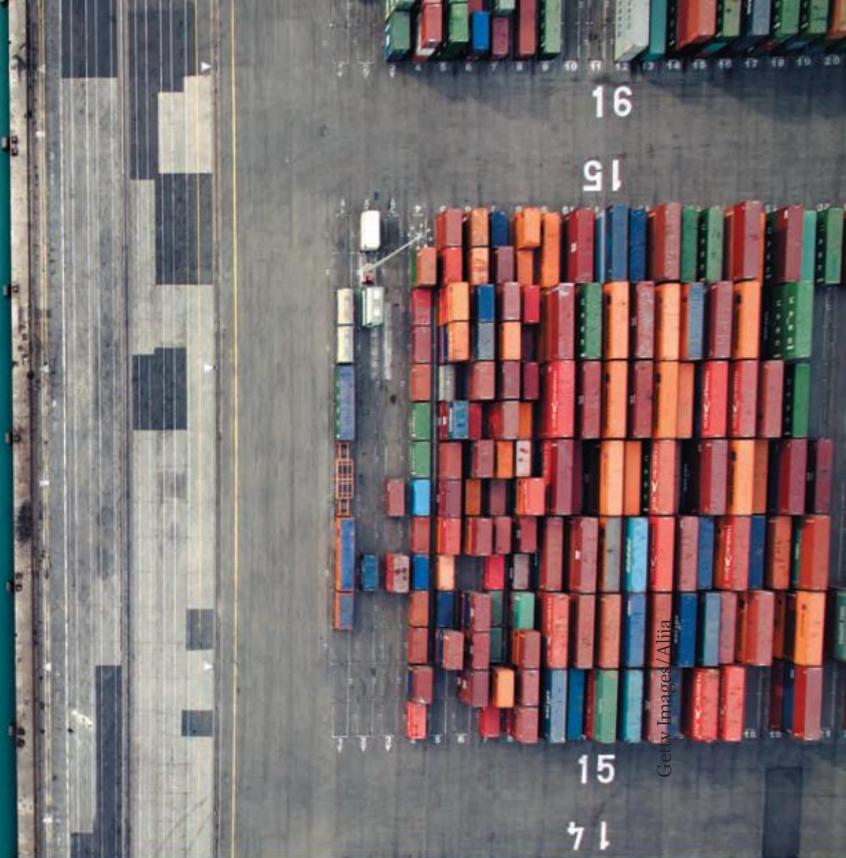
This is the common external exam that all Economics students will be required to sit and is set by the QCAA. It will be on ‘Unit 4 Topic 2: Economic management’ and will be two hours in length, plus 15 minutes planning time.

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.

An aerial photograph of a sidewalk with several people walking. The scene is overlaid with a semi-transparent green filter. Long shadows are cast on the ground, suggesting a low sun position. The people are dressed in casual to business-casual attire. In the top right corner, there is a white rectangular box containing the text 'UNIT 3'.

UNIT 3

International economics



1

International trade

This chapter examines trade and the circular flow of income, patterns and direction of Australia's trade and trade theories.

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?

To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:

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

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.

How does the real world compare with this imaginary world? We do not have to look very far to notice that we live in a world of appreciable differences. When early humans ventured beyond their immediate environment, they discovered new resources and, as civilisation spread across the Earth's surface, humans recognised the need for trade. People saw that trade provided the means by which a greater number of wants could be satisfied. We are all familiar with the practice of swapping recipes, digital files and other items among friends. This is a version of the primitive barter system, the simplest form of trade, which even today still accounts for a substantial volume of internal trade in less-developed regions of the world.

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, international trade is a far more complex process, but the basic reason for its existence is the same. 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.

1.1 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** (or 'circular flow 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 becomes:

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

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.

Equilibrium is said to be achieved in the economy when:

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

where:

Ip = planned investment

Sp = planned saving.

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. In Australia, there has been an increasing gap between X and M , which has contributed to an increased external debt – investments, largely from overseas, are being used more than national savings. To narrow the difference between X and M , the circular flow of income model demonstrates that I should decrease or S increase or T increase or G decrease. In 2017 and 2018, the Australian Government delivered budget deficits (G increased more than T) and there has been a sustained campaign to encourage an increase in national savings.

International economics is an important area of economics. In studying this field we get 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 have to make some difficult decisions to achieve their objective of external viability while maintaining **internal balance**, such as low levels of inflation and unemployment.

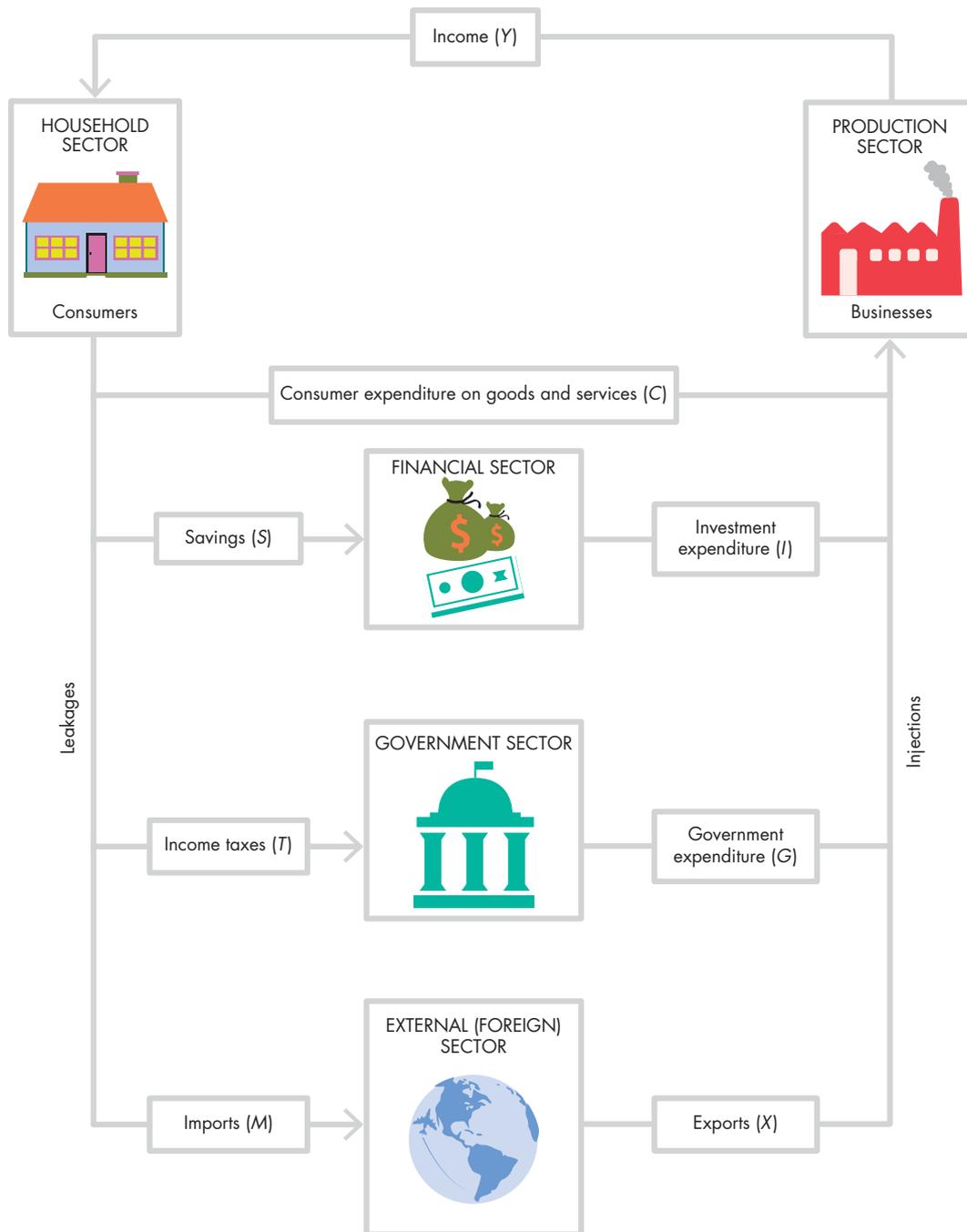


FIGURE 1.1 The circular flow of income model

QUESTIONS

- 1 Why are import payments a leakage from the circular flow-of-information model and export income an injection into it?
- 2 Why is Australia described as a small, open economy?
- 3 How does trade assist economic growth?

ECONOMICS DATA

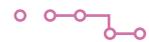


Use the Internet to find the current rates of growth of Australia's imports and exports.

- 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.

1.2 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

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, education and health standards, and housing standards

Widening gap: increasing economic difference between poor nations and economically advanced nations

It should now be evident that there is a similarity between the **economic problem** confronting an individual and the problem that faces all nations. **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.

1.2.1 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 extremely 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.



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FIGURE 1.2 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.

1.2.2 Unequal distribution of capital and technology

The implementation of capital-intensive techniques in all types of production resulted in remarkable growth rates in productivity last century, and this growth rate is likely to continue. This, in turn, has led to greatly improved living standards in those countries where such innovation has been possible. However, the inability of many countries to accumulate capital means that these countries have been unable to develop capital-intensive forms of production. Many of the less-developed countries of the world fall into this category.

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.

1.2.3 Unequal distribution of human skills

In recent decades, some 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. Generally speaking, we can say that 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.



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FIGURE 1.3 Advanced economies have populations with a high proportion of skilled labour, enabling them to diversify production and to initiate and absorb technological change.

1.2.4 Desire for an improved standard of living

As mentioned earlier, 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.

1.2.5 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 actually 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.

QUESTIONS

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

ECONOMICS AND ICT



Create an economic profile for Australia and one other country.

- 1 Collect statistics to describe the distribution of natural resources, human skills, standard of living, and capital and technology.
- 2 Collate the data into tables and graphs.
- 3 Present this information as an infographic to your class. At the conclusion to your presentation, make a judgement as to which country has the best factor endowment, and justify this referring to the evaluative criteria used.

1.2.6 The complexity of international trade

CONCEPTS



Capital-intensive methods 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

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 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

Productivity: output per unit of input per unit of time

Although it is possible to identify similarities between interregional and international trade, 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.

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. 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: the dollar. 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 to cheaper labour. This often



Shutterstock.com/humphery

FIGURE 1.4 Labour-intensive methods of production require a pool of cheap labour, as in this clothing factory.

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 telephone 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 compared with those that existed in Japan, the USA and countries such as 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 Great Britain and almost as large as the USA, excluding Alaska. The distance to major Asian seaports and to the US west coast is about 12 000 kilometres, and the major European markets lie more than 17 000 kilometres from Australia. 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 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 has been 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- 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.

Different 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 1.6) 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 market place, 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 has been actively pursuing 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** now produce more than 25 per cent of the world's GDP. The ten largest multinationals each have an annual output that exceeds the individual GDP of 120 nations in the world. These kinds of figures indicate the enormous influence that multinationals have on international trade. Indeed, if one considers the multinational companies as separate economies, the top 100 economies in the world contain 69 multinational corporations and 31 countries.

Intra-company trade is a common feature of multinationals. Subsidiary companies of one corporation scattered throughout the world will often trade with each other, shutting out competitors and distorting the market. 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. A phenomenon of recent years has been the movement of multinationals into China as the Chinese Government has sought to attract foreign capital, technology and expertise. In some cases, corporations have moved their operations from Taiwan to China to take advantage of cheaper labour costs. Consider the implications for the economy that suddenly loses the production previously generated by a multinational corporation.

QUESTIONS

- 1 Identify conditions in Australia that may create difficulties for overseas trading firms.
- 2 Identify at least five multinational companies that operate in Australia. List some of their products.
- 3 How might an Australian multinational company operating in China be of benefit to China?

ECONOMICS AND ICT



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 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 web page that could be used by firms interested in seeking trade opportunities in your chosen country.
- 4 Include a list of other websites that could be used for further information.



Austrade

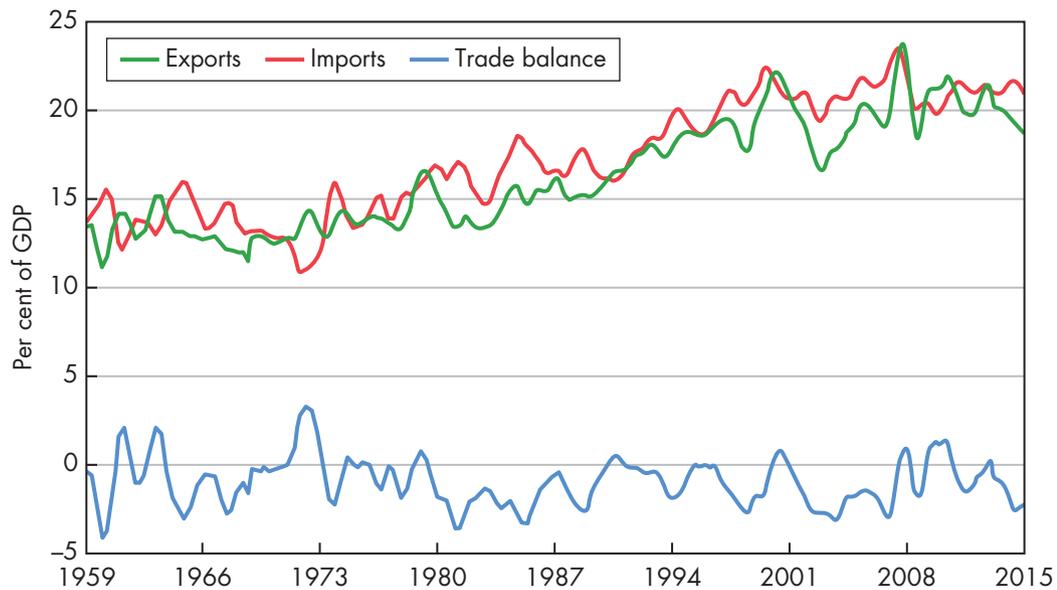
1.3 Advantages and disadvantages of international trade

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.

1.3.1 The costs and benefits of trade

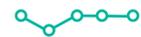
In spite of people’s apprehensions about trade, both imports and exports are at an all-time high in Australia (see Figure 1.5). For trade to occur it must make both nations better off. This is a positive-sum game, not a zero-sum game, because both sides gain.



Source: Australian Bureau of Statistics (ABS), Australian national accounts, cat. no. 5206.0, ABS, Canberra, March 2016. (CC BY 2.5 AU) (<https://creativecommons.org/licenses/by/2.5/au/>)

FIGURE 1.5 Australian exports, imports and trade balance as a proportion of GDP

ECONOMICS IN ACTION



- 1 Using the Internet, 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 (sellers). First, let's consider the benefits to buyers. Consumers see the benefits of trade in terms of variety and price. International trade results in consumers having access to a wider variety of goods and services. 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 and services 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 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.

Benefits of trade extend beyond the immediate buyers and sellers. International 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. When businesses shut down, workers lose their jobs. This is painful for workers, who must then be retrained and learn new job skills to find new employment.

Net benefits of trade

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 international 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 as a result of that spending, and this would not have happened without international trade.

QUESTIONS

- 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 and give an additional example of each 'winner'.
- 4 Identify 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.

1.4 Why international trade is important to Australia

CONCEPTS



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

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.

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 within our economy. 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. The fluctuations in price for these goods can also have an impact on the Australian economy and affect the demand for products. Australian governments earn royalties from the sale of our minerals. An increase in world prices and demand for such a product increases the amount of money governments (both state and federal) receive, while a decline in price or demand 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.

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

The increasing interdependence of the world's economies means trade is very important to individual countries. International tourism, the increasing 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) 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 4), 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 balance on 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.

1.5 Australia's trade

CONCEPTS



Exports: goods that Australia sells to foreign nations

Imports: goods that enter Australia from overseas

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.

1.5.1 Commodities traded

Imports

Australia's imports reflect the structural composition of the Australian economy, and are shown in Figure 1.6.

FIGURE 1.6 Major Australian merchandise imports, 2016 (A\$m)

Passenger motor vehicles	21 403
Refined petroleum	14 289
Telecommunications equipment and parts	11 970
Crude petroleum	7 953
Medicaments	7 617

Source: DFAT 2017

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 1.7; 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.

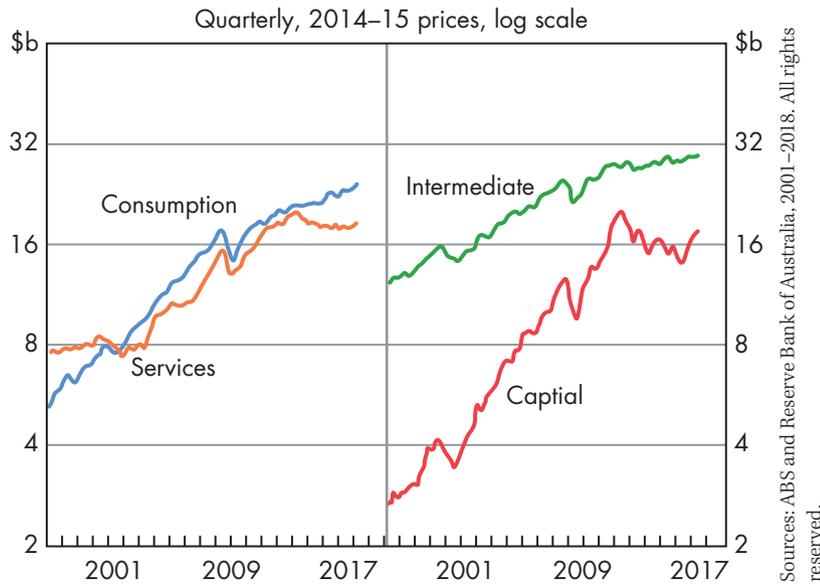


FIGURE 1.7 Australia's import volumes

Exports

Australia has 'ridden on the sheep's back' for much of its history since European settlement. This phrase was commonly used to describe Australia's reliance on wool, which was for so long our major export. As Figure 1.8 shows, this is no longer the case.

FIGURE 1.8 Major Australian merchandise exports, 2016 (A\$m)

Iron ore and concentrates	53 703
Coal	42 326
Gold	18 857
Natural gas	17 911
Beef	7 401

Source: DFAT 2017

Figure 1.8 shows that Australia's main exports come from the resources sector, which outstrips the rural, services and manufacturing sectors combined, as shown in Figure 1.9.

In 2016, exports totalled A\$259 065 million while imports totalled A\$266 905 million, resulting in a merchandise trade deficit of A\$7840 million.

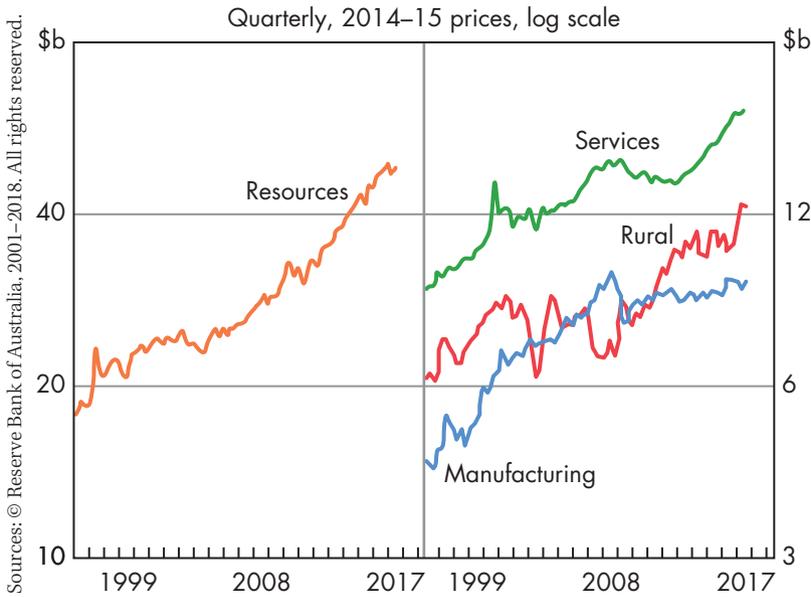


FIGURE 1.9 Australia’s export volumes

ECONOMICS DATA

Use Internet sources to find the most recent statistics showing the value of imports, exports and trade deficit 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.



Department of Foreign Affairs and Trade

Australian Bureau of Statistics

Reserve Bank of Australia

1.5.2 Direction of Australia’s trade

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

Imports

Three Asian nations were in the top five of Australia’s import sources in 2016. These were China, Japan and Thailand, which together accounted for 35.2 per cent of our imports. The USA and Germany rounded out the top five. 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).

FIGURE 1.10 Australia’s main merchandise import sources, 2016

China	22.3%
USA	11.2%
Japan	7.4%
Thailand	5.9%
Germany	5.1%

Source: DFAT

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, Republic of Korea (South Korea) and India, with the USA being the other top five destination for our exports. This is shown in Figure 1.11.

FIGURE 1.11 Australia's main merchandise export destinations, 2016

China	31.6%
Japan	14.0%
Republic of Korea	7.0%
USA	4.8%
India	4.3%

Source: DFAT

ECONOMICS IN ACTION



Use the Internet to find the two most recent years for trade statistics.

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

1.5.3 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.
- 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, there are increasing numbers of people from China visiting Australia as a result of the rise in income of the Chinese people. In addition, there are many Chinese students (in both secondary schools and universities) enrolling in Australian educational institutions.
- 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, and domestic consumers are given 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.

1.6 Trade theories

1.6.1 The principle of absolute advantage

CONCEPTS



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

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

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

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.

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 1.12 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.

Suppose that Australia settles for the output combination shown by point A in Figure 1.12(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**.

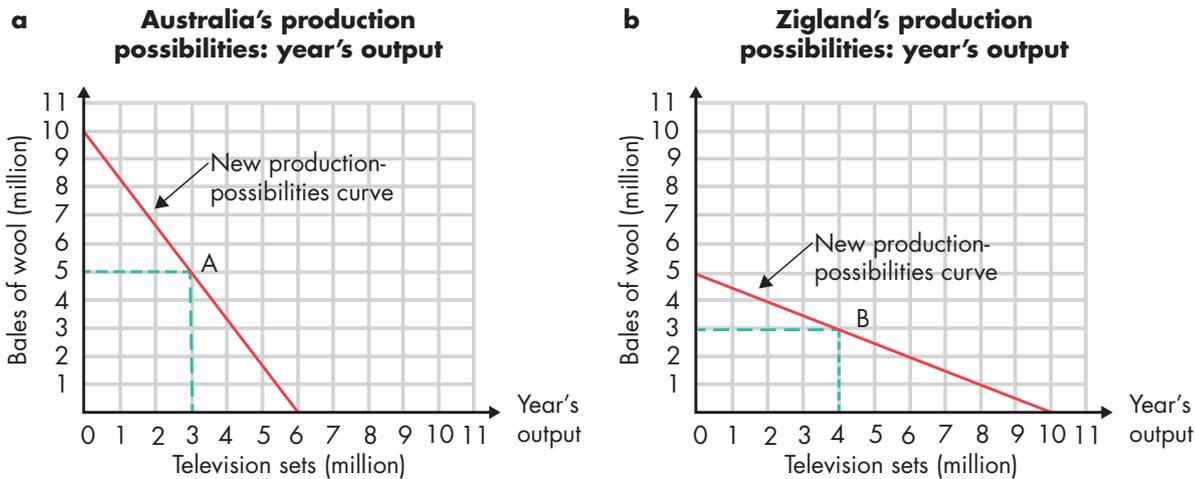


FIGURE 1.12 The principle of absolute advantage

In the same way, we can analyse Zigland's production-possibilities curve in Figure 1.12(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.

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 1.13 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 1.13(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 1.13(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.

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 1.13(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.

FIGURE 1.13 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

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.

QUESTIONS

- 1 What are the advantages of specialisation in world trade?
- 2 Restate 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.

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.

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.

1.6.2 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** (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. 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 1.14 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

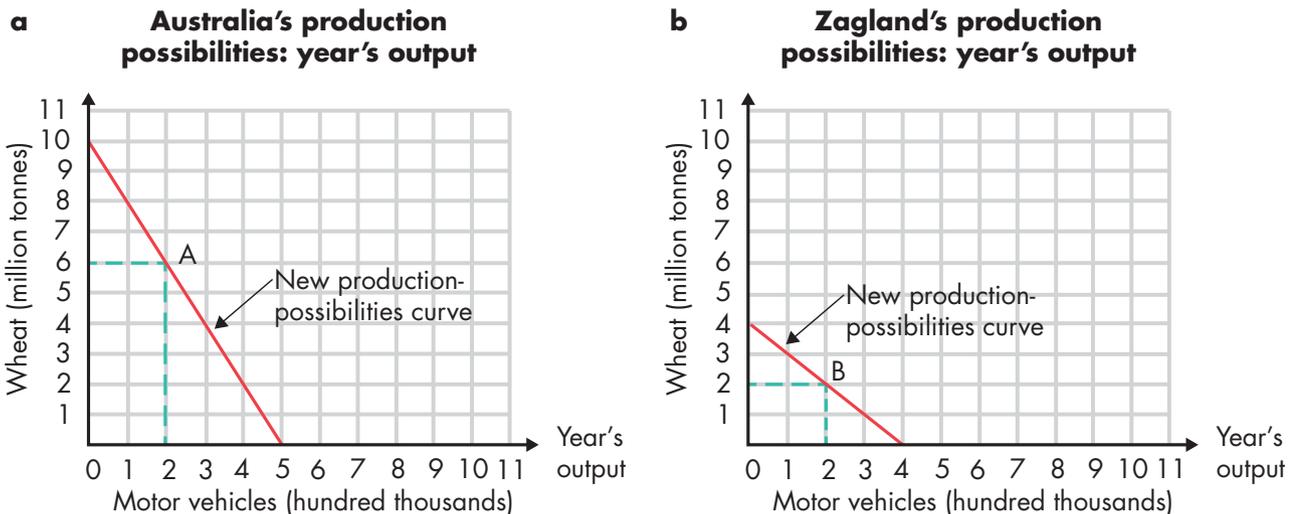


FIGURE 1.14 The principle of comparative advantage

from trade with Zagland. However, Figure 1.15 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 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 1.15 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.

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 2 million tonnes of wheat are received in return (the level of Zagland's wheat output prior to specialisation). Figure 1.15 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.

FIGURE 1.15 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

QUESTIONS

- 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 How can 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



Figure 1.16 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 1.16

	Motor vehicles	Television sets
Pacifica	250	100
Europa	160	80

1.6.3 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 1.17.

- **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:** a 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.

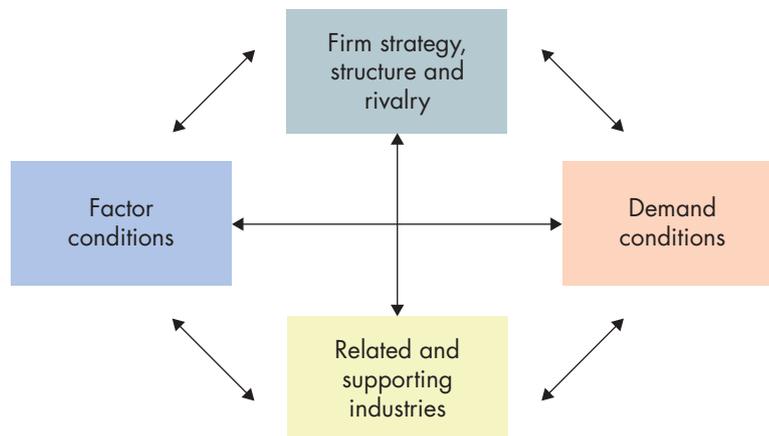


FIGURE 1.17 Porter's Diamond – determinants of national competitive advantage

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.

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.

1.6.4 Intra-industry and intra-company trade

CONCEPTS



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 35 per cent of world trade in manufacturing is carried out within companies. Intra-company trade occurs between the 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.

QUESTIONS

- 1 How would the principle of competitive advantage apply to Australia?
- 2 Why does most intra-industry trade occur between nations that are economically advanced?
- 3 How does intra-company trade interfere with other 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 (include specific facts and figures).

1.7 Challenges in trade

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

- 1 **International competitiveness:** this measures a country's ability to compete in international markets for goods and services. Australia's record here is poor and we need to improve our competitiveness. This is a major challenge for Australia.
- 2 **Trade liberalisation:** this is a policy designed to promote free trade and reduce protection levels between nations. Our free trade agreements and membership of regional trading blocs need to be enhanced and further developed.
- 3 **Brexit:** the withdrawal of Great Britain from the European Union is an opportunity for Australia to once again view Britain as a major trading partner. The potential to increase trade with Britain is now here, providing governments and the private sector with new opportunities to explore areas of comparative advantage and mutual benefits on which trade agreements could be based.
- 4 **Exchange rate:** you will consider the exchange rate for Australia in Chapter 3. The rate of exchange for the Australian dollar with other currencies is important. When the exchange rate is high, exports are less competitively priced and decrease. When the currency depreciates, the price of imports will increase, impacting on domestic consumers.
- 5 **Maintaining our balance of payments position:** this is yet another issue and will be dealt with in full in Chapter 4. 'Balance of payments' refers to Australia's international financial position. Australia is usually in deficit on the current account, which looks at our trading position.

1.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 The concept of 'opportunity cost' highlights the benefits that can be gained from world trade.
- 2 To enjoy the benefits of specialisation, countries need to trade.
- 3 Exports are a leakage from the circular flow of income model because goods are sent overseas.
- 4 A country that has an absolute advantage in the production of all goods cannot gain from specialisation and trade.
- 5 Different countries have a comparative advantage because opportunity costs differ.
- 6 Consumers gain when a business exports a good to overseas nations.
- 7 An open economy is one that trades freely with the rest of the world.
- 8 Revenue from exports is considered to be a leakage from the circular flow.
- 9 Multinational corporations produce more than 25 per cent of global production.
- 10 Technical differences are not a problem in international trade.

1.2 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

1.3 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.
- 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.

Review of Chapter 1

- 7 Countries will gain by concentrating on a limited range of goods because:
- A producers discover new and more efficient techniques.
 - B their scale of operation will warrant mass production methods and the increased use of capital.
 - C they are more likely to improve the product itself as a result of improved skill and research.
 - D all of the above.
- 8 Australian exports are comprised mainly of:
- A manufactured products.
 - B farming machinery and plant.
 - C clothing and textiles.
 - D agricultural and mining products.
- 9 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.
- 10 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.
- 11 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.
- 12 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.
- 13 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.

- 14** 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.
- 15** 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.

1.4 Short response questions

- 1** Describe three ways in which international trade differs from domestic trade.
- 2** Briefly identify three reasons why the overseas sector is so important to the domestic economy.
- 3** How can trade between two nations 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** 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** Identify three reasons why China has become Australia's main trading partner.
- 10** Distinguish between absolute and comparative advantage.

1.5 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 1.18.

FIGURE 1.18

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 1.19 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 1.19

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.

1.6 Inquiries

Select one inquiry topic from the list below (or create your own) and, following a selected inquiry model such as the economic model for problem solving, conduct an inquiry that can be presented to your class.

- 1** Investigate the composition of Australia's exports and imports, and changes that have occurred in the past 20 years. What problems are associated with such composition, and what further changes could be beneficial for the Australian economy?
- 2** Investigate the changing nature of the composition and direction of Australia's trade. Is this due to changes in the domestic economy rather than world events?
- 3** Given that international trade is much more complicated than interregional trade, do you agree that Australia should promote the development of import replacement industries? Is this policy consistent with the principles upon which international trade is theoretically based?

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 1
answers

Review of Chapter 1



Getty Images / Tetra Images

2

Globalisation

This chapter aims to introduce the concept of globalisation, the growth of multinational and multi-company supply chain operations, and the role of multinational corporations in the globalisation process. The chapter concludes with an examination of the benefits and costs of globalisation and its overall effect on the global economy.

Focus questions and inquiries

- Does globalisation mean that consumers are becoming the same worldwide?
- Does globalisation increase prosperity for all or create increasing inequality?
- Does globalisation result in altered financial flows?
- What are the linkages between economies, including trade, investment, tourism, supply chains and immigration?

To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:

- the meaning of globalisation, integration and interdependence
- measures of the extent of globalisation and the growth of international business
- the factors that have facilitated the globalisation process
- multinational supply chains
- the costs and benefits of globalisation.

2.1 The nature of globalisation and interdependence

CONCEPTS



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

Globalisation: the growing integration of national economies to form a single interdependent global economy

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 cross-border transactions and international flows of trade, capital and technology

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 is changing. It can no longer be viewed just as a patchwork of distinct national economies; increasingly, it resembles a large, single global economy.

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

- the availability of an increasing number of products from around the world
- the brand names and company names such as McDonald's, Coca-Cola and Nike that are instantly recognisable and whose products are readily available no matter where we travel – the spread of the multinational corporation
- the foreign ownership of local businesses
- the ability of people to work at their chosen career in various locations around the world.

Less obvious – although no less significant – indicators of global linkages include:

- fluctuations in domestic share prices and interest rates in line with fluctuations overseas
- changes to the industrial structure of economies and job losses
- the ebb and flow of cross-border and cross-currency loans and deposits
- the number of foreign students studying English or studying in English-speaking countries.

Globalisation covers many more issues than simply international trade. The globalisation of the world economy is characterised by a greater degree of **interdependence of national economies** than that created by the links of international trade. Globalisation implies that national economies lose some of their independence and separate identities as they become

merged into one global economy. This 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 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 through military conquests, such as the spread of the Roman Empire, where new ideas and products were introduced into different regions.

2.2 The extent of globalisation

CONCEPTS



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

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

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 flows of trade, capital and labour across international borders.

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

2.2.1 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 2.1 shows that world trade volume growth has generally been growing faster than world GDP growth. 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.

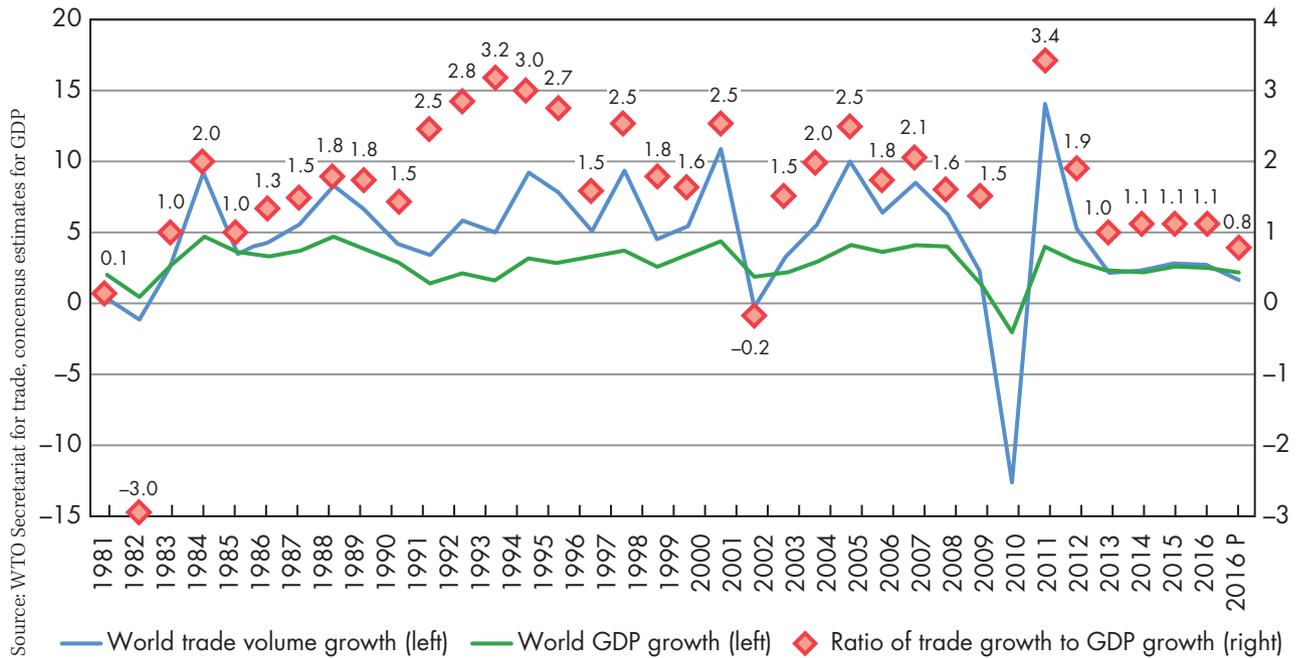


FIGURE 2.1 World GDP and trade volumes

FIGURE 2.2 Total trade as a percentage of GDP – selected countries

Country	Total trade as % of GDP 1974	Total trade as % of GDP 2014	Percentage change in total trade as % of GDP	Percentage change in GDP
Australia	25	42	68	261
USA	11	30	172	213
Japan	19	35	84	166
Germany	31	85	174	120
China	6	42	600	3923
South Korea	41	96	194	1552
India	8	49	512	944

Source: World Economic Forum

ECONOMICS DATA

- 1 Find more recent data to update both the graph in Figure 2.1 and the table of statistics in Figure 2.2. Suitable sites are available via these links.
- 2 What does your updated data reveal? Are there any major changes or do the trends continue as they were?



World Trade Organization
World Economic Forum
United Nations
Conference on Trade and Development

In 1974, the ratio of trade to GDP in Australia was 25 per cent. In 2014 this had grown to 42 per cent. Trade intensity probably underestimates the extent of product market integration. The GDP includes many services that are non-tradeable; for example, services to the owners and occupiers of houses and office blocks and to the users of infrastructure (such as roads and bridges) are unable to be traded.

Of course, the remarkable figures are those for China, South Korea and India, all of which have had remarkable growth rates and contribute much more to the world economy than they did in 1974.

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 tariff and non-tariff barriers, transaction costs, transport costs, and lack of sufficient information by traders of 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.

QUESTIONS

- 1 List two trade-related ways of measuring the level of economic integration of the domestic economy and the international economy.
- 2 Define the term 'trade intensity'.
- 3 Give two examples of non-tradeables.
- 4 What is the difference between a good and a service?
- 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. As shown in Figure 2.3, finance from external sources in relation to economic activity has grown significantly over the last two decades. Trade has also grown. These two measures of globalisation complement each other. For example, if foreign direct investment (FDI) grows, one would expect to see an increase in capital goods and business services. As shown in Figure 2.3, FDI inflows alone over the past decade have grown in excess of 21 per cent per year.

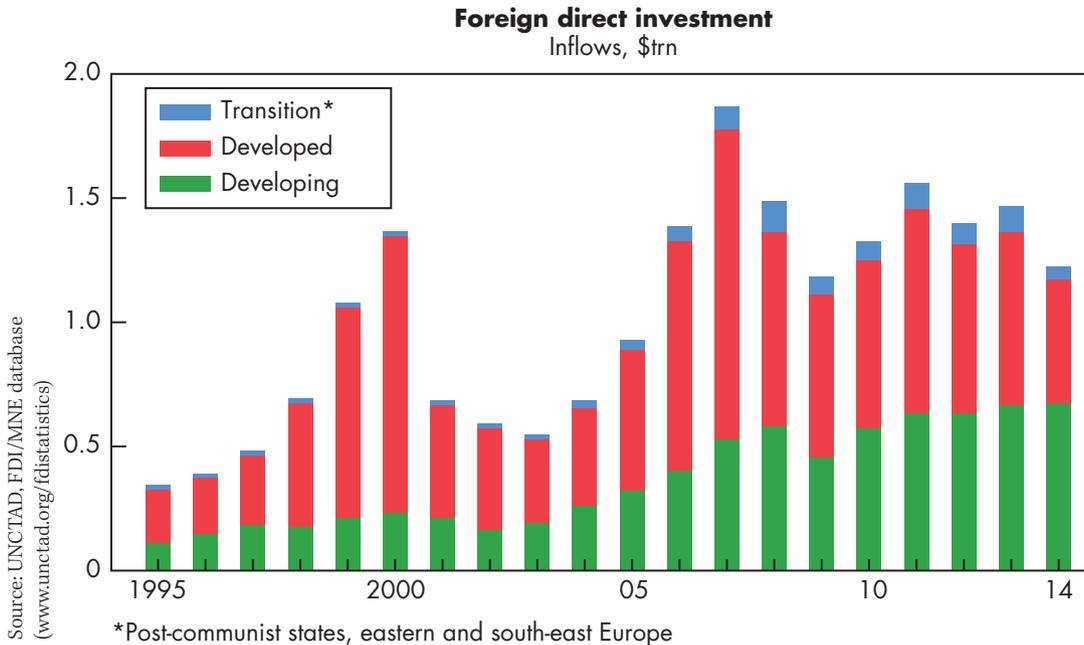


FIGURE 2.3 Total world FDI flows 2014

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 2016, average daily turnover in global foreign exchange markets is estimated at US\$5.1 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 and 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



Global integration



United Nations Conference
on Trade and Development

Organisation for Economic
Co-operation and
Development

The World Bank

International
Monetary Fund

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.

Using the Internet, search publications and organisations such as *World Investment Report* (UNCTAD), *The Globalisation of Industry in the OECD Countries* (OECD), the World Bank and the IMF. Follow the links to these sites as a starting point.

International labour flows

FDI and globalisation of markets and production generate opportunities for international migration. Career opportunities in foreign affiliates exist for expatriate managers and skilled employees. Globalisation of markets increases the number of contacts among people of different cultures. A greater understanding and sensitivity to cultural diversity would presumably encourage people to migrate internationally. An increasing level of international migration for economic motives would indicate a growing integration of economies and labour markets.

Data on migration of labour for the purposes of taking up employment is difficult to obtain. Levels of immigration are dependent on numerous variables outside the control of any individual. Immigration raises many economic, political and social tensions within host countries. While there has been significant liberalisation of the barriers to international trade and capital flows, migration remains highly regulated. Labour markets therefore remain very segmented and national rather than global in scope.

QUESTIONS

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

ECONOMICS DATA



Several organisations compile a list of the world's top 100 economies. Some include country, company and city. Locate one that only includes country and company information. An Internet search of 'world top 100 economies' should result in such a list.

Examine the list and answer the following:

- 1 How many countries make the top 100 economies? How many companies make the top 100 economies?
- 2 Where does Australia rank? In 2016 Australia ranked 12th. Has its position improved or declined? Why do you think that is?
- 3 In 2016, the USA was ranked number 1 and China number 2. Is that still the case?
- 4 In 2016, Walmart was the leading company, ranked 10th. Is this still the case? If not, what is the leading company now?
- 5 In 2016, there were 31 countries and 69 companies in the top 100 economies. What is the situation now? Why have these changes occurred? Would these changes be the result of an increase or decrease in globalisation?

2.3 Multinationals and supply chain integration

CONCEPTS



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

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 a quarter of its revenue from operations outside of its home country is considered a multinational corporation

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

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

A **multinational corporation (MNC)** is an enterprise or company that operates in more than one country, but is managed from one home country. Usually an MNC will earn at least 25 per cent of 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**.

An MNC is usually huge; indeed more than 60 MNCs are in the world's top 100 economies! MNCs are able to become so 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. Companies seek to maximise the value they receive from their supply chain. The global supply chain accounted for an estimated 24 per cent of a company's performance in 2018 and this will continue to grow. Companies such as Dell (23%), Microsoft (19%), Nestle (24%) and Siemens (23%) are acutely aware of the importance of global strategic supply chains for the worldwide performance of their businesses. This section examines the major factors influencing the supply chain.

Ninety per cent of today's global demand is not fully met and serviced by local supply. Nine out of ten products you buy in your town or city come from somewhere outside the general reach of that area; the other product relies on inputs from outside your town or city.

2.3.1 Location of natural factor endowments

Many MNCs rely on resources from outside their parent country. These may be natural resources such as minerals, 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 – for to rely on just one country for the supply of one good is not efficient if a barrier to production of the product occurs in that country; for example, due to civil war, flood, drought or a change in government.

MNCs will tend to source their basic materials from those countries that have a competitive advantage, and provide the best **economies of scale** opportunities.

Many agribusiness food processors source raw materials from small-holder farmers. This is particularly true in certain sectors, such as coffee, cocoa and sugar. Over the past 20 years, there has been a shift towards more traceable supply chains. Rather than purchasing crops that have passed through several layers of collectors, firms are now sourcing directly from farmers or trusted aggregators. 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. This usually means that companies source products from a number of supply countries as they seek to improve productivity.

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 such as 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.

Advances in technology

The past 20 years have seen an incredible advancement in available technology, and the pace of this will continue to accelerate in the future. Using the Internet, customers can directly contact the sellers. This has, in effect, reduced the channel up to a great extent. Initially, the supply chain was longer and it used to cost more. The Internet has cut down the middlemen, such as retailers. Now the supply chain has reduced to manufacturer, distributor and online platform to the consumers. Technology has enabled MNCs to operate integrated companies across multiple countries. This results in the ability to benefit from differences in wages, government regulations and taxation levels across countries.

Some of the benefits of advances in technology are cost reduction, value creation and better collaboration.

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, the finished product and onto consumers. Efficient movement of people and freight is vital to today's global economy. 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.

Developed countries have no such problem generally, but less-developed countries often have to supply infrastructure before an MNC will seek to operate there.

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.

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 often result in better conditions for the MNC to grow and flourish.

International trade has increased so dramatically that MNCs are highly dependent on the supply chain to provide the necessary buying and selling infrastructure. The incredible growth of MNCs over the past decade has been driven largely by the effective development and implementation of global supply chains that result in multi-company and multinational supply chains. Each MNC needs to incorporate its supply chains into its overall corporate strategy, to leverage them as much as products, market participation, marketing and competitive moves to achieve global competitiveness.

2.4 Factors contributing to globalisation

CONCEPTS



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 market place; for example, a lower-cost producer, an established brand name or an innovative product

Double taxation: the taxation of an international firm's profit in the country where it is earned and again in its home country where it is distributed

Emerging market economies: developing economies that are transforming their economies to a capitalist market system; also referred to as 'transitional economies'

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

Intellectual property: technology and knowledge assets

Operational restrictions: political limitations that are placed on the way a foreign firm operates; for example, who it employs, the prices it charges and the markets it serves

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

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 the multinational corporations 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.

2.4.1 Technological changes

Dramatic improvements in transport and communication systems mean that products, capital, people and ideas can now move faster and more cheaply internationally.

Improved communication and information-processing technologies allow a firm to manage and coordinate effectively the production and marketing activities of its foreign affiliates in globally dispersed locations. These technologies have also led to the establishment of new international business opportunities, such as international call centres, the provision of international financial services, and international marketing and retailing services on the Internet.

Improved transport technologies have resulted in containerisation, super-freighters, larger commercial freight jet aircraft, high-pressure pipelines and offshore oil platforms. The use of containers has given rise to a more specialised vessel: the container ship. Cheaper and faster transport enables a globally oriented firm to enjoy production and marketing efficiencies. For example, production efficiencies flow from being able to locate stages of the production process in low-cost countries, and from the economies of scale that result from the supply of a standardised product to many foreign markets from a single location. Supply chains for intermediate and finished products are, in dollar terms, shortened. Marketing efficiencies result from being able to communicate standard promotional material to dispersed markets, and distribute the products to these markets in a timely manner.

2.4.2 Resolution of global political conflicts

The world economy has been divided by political conflicts. With the world facing less global conflict, and conflict limited to small regional areas, the world is now more open for international trade. Trade will increase when there is a relatively peaceful global situation, and in times of global conflict, trade will become much more restricted.

2.4.3 Changed development strategies

Since the 1980s, the economies of Central and Eastern Europe, China and Vietnam have undergone significant transformation, or market reforms. In varying degrees, these economies emerged as market economies. These **emerging market economies** have been reintegrated with the world economy. The market mechanisms – individualism and private enterprise, both foreign and local – are now encouraged. The promise of improved production efficiency and higher living standards as a result of the reforms are strong incentives for international business to enter these potentially lucrative markets and establish operations.

Over the two decades to the late 1990s, the economic performance of newly industrialised countries (NICs) such as the ‘East Asian Tigers’ (Hong Kong, Singapore, South Korea and Taiwan) pointed to a successful model of economic development. The features of this model are the promotion of manufactured exports and ‘outward-looking’ or **export-orientation strategies** in business and industry policies. This development model contrasts with the more insular, ‘inward-looking’ **import-substitution strategies** chosen by countries such as India and Australia during the 1960s and 1970s. As the lessons of the NICs are taken on board by more countries, the opportunities for international business expand. The rapid economic growth of China and India in more recent times has been a major factor in the growth of international business.

2.4.4 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 conducted by the **World Trade Organization (WTO)** have yielded some significant reductions to government-imposed barriers to trade. Most reductions relate to tariff barriers rather than non-tariff barriers. As a result of negotiations through the Uruguay and Doha Rounds, tariffs of developed countries are at historically low levels. Generally speaking, average tariff rates are less than 20 per cent in most countries, although they are often significantly higher for agricultural commodities. In the most-developed countries, average tariffs are less than 10 per cent and often less than 5 per cent. On average, less-developed countries maintain higher tariff barriers, but many countries that have recently joined the WTO have reduced their tariffs substantially to gain entry.

Commitments from member countries of the WTO have also been obtained regarding the liberalisation of trade in services, the protection of **intellectual property** and the reduction of restrictions on FDI. FDI can be subjected to a variety of regulations, including market access restrictions, ownership restrictions, **operational restrictions** and administrative restrictions.

The liberalisation of trade and investment flows has also occurred at the regional level. The formation of regional trading blocs such as the North American Free Trade Area and the Asia-Pacific Economic Cooperation forum, and the expansion of membership of the European Union have brought commitments from member countries to reduce barriers to international trade and investment. Australia has negotiated a number of bilateral free trade agreements, including with New Zealand, the USA, Singapore and Thailand. **Double taxation** treaties negotiated between countries – that is, agreements to reduce or abolish double taxation – are incentives to conduct international business.

2.4.5 Market potential of developing countries

The potential market opportunities flowing from the successful integration of lower-income countries into the global economy are huge. By 2020, there will be major shifts in the world economic order, in which emerging economies will become more important. China will overtake the USA to become the largest world economy in the near future, and there will be more emerging economies in the top ten economies by 2020 and beyond. The rise in importance of emerging economies will have implications for global consumption, investment and the environment. Large consumer markets in emerging economies will present enormous opportunities for businesses. However, income per capita will remain higher in the advanced world. There is significant market potential for foreign businesses as they grow richer and their countries' standards of living rise.

2.4.6 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, the Czech Republic, Hungary and Poland.

2.4.7 MNCs

An MNC that can locate its different activities in different countries according to each country's **comparative advantage** will achieve **competitive advantage**.

Nations benefit not only from the free flow of trade, but also from the free flow of investment. Foreign investment has increased significantly over the past two decades. 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.

As explained already, an MNC can gain a competitive advantage by locating different production activities in different countries to achieve comparative 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.

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. Companies that cannot access transfer pricing are at a competitive disadvantage.

Because of the costs of foreign investment and 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 25 per cent of global GDP. They operate 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.

2.4.8 Regional trading blocs

Regional trading blocs include the European Union, the Association of Southeast Asian Nations (ASEAN) and the North American Free Trade Agreement. Australia belongs to the Asia-Pacific Economic Cooperation (APEC) forum.

Such trading blocs generally have reduced trade barriers between nations, encouraging more inter-nation trade and increasing global production. With fewer barriers, there has been a growth in international relations, an increase in trade, and a furtherance of the exchange of technology and other production ideas.

2.4.9 Non-government institutions

The International Monetary Fund (IMF)

The 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.

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, thus enhancing 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 WTO

The WTO was established in 1995, replacing its predecessor, the General Agreement on Tariffs and Trade (GATT). From 1948, the GATT was the only international body laying down trade rules accepted by its members, which were responsible for most of the world's trade.

There are currently 164 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.

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.

By providing a more stable trade environment, the WTO has unintentionally facilitated the growth of MNCs as part of the globalisation process.

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 business (including MNCs) is 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.

QUESTIONS

- 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 a quarter of its revenue from operations outside of its home country is considered a multinational corporation.' Identify the two essential parts of this definition.
- 2 Why does an open economy increase GDP faster?
- 3 Name three Australian-owned MNCs and identify the industries and the nations in which they operate.
- 4 List three technological changes that have supported globalisation.
- 5 Explain the differences between an import-substitution strategy and an export-orientation strategy.

2.5 Forces driving globalisation

CONCEPTS



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

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

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

Business 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
- government incentives.

2.5.1 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.

2.5.2 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).

2.5.3 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.

2.5.4 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: Pacific Brands moves offshore

(Note: Pacific Brands is now owned by a US company.)

Pacific Brands is a leading manager of consumer brands in Australia and New Zealand, marketing some of the most recognised brands in the region, including Berlei, Bonds, Clarks (children's footwear), Dunlop, Everlast, Grosby, Holeproof, Hush Puppies, KingGee, Slazenger, Sleepmaker and Tontine.

Pacific Brands, formerly a division of the diversified company Pacific Dunlop, had been manufacturing many of these brands in Australia for 100 years. In 1999, the company drew up plans to outsource the production of these brands to contract manufacturers offshore. The contracting out was expected to reduce the company's workforce from 6000 to 3000.

In 2014, Pacific Brands claimed to be one of Australia's largest importers of consumer goods from Asia. Pacific Brands stated that the overseas sourcing of many of its products gives it the following benefits:

- greater flexibility in changing designs and products
- a variable cost base and low cost of production
- greater efficiency
- ongoing learning curve benefits, such as:
 - long-term relationships with quality suppliers accustomed to Pacific Brands requirements
 - development of experienced sourcing personnel
 - an established credit track record, which helps improve payment terms.

Some local manufacturing of a range of products still occurs, including socks and hosiery (which are capital-intensive); new products (so that they can be manufactured and tested in the market on a trial basis); and bulky products such as furniture and mattresses (to maintain close proximity to markets).

The strategy of international outsourcing was aimed at generating sustainable profit growth. There was little prospect of achieving this aim by continuing to manufacture many of the low value-added consumer brands in Australia.

Questions

- 1 Explain 'low value-added' and 'capital-intensive' manufacturing. What resources would be used in low value-added production?
- 2 In which countries would Pacific Brands most likely be outsourcing the production of many of its consumer brands?
- 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?

2.5.5 Risk diversification

An international firm with production and marketing operations in several countries is able to engage in **risk diversification**; that is, it can reduce or manage economic and political risks. Multiple sources of essential raw materials and access to several markets reduce the political risks associated generally with political instability and with the actions of groups such as the host government, trade unions and terrorist organisations.

The economic risks associated with a natural disaster or macroeconomic instability – for example, high inflation rates, devaluing currencies or a downturn in economic activity – are reduced by a firm operating in a number of different countries. At any one point in time, economies are at differing stages in their economic cycle of boom and recession. When faced with an economic recession in its home country, a firm with operations in several countries may be relatively protected from the recession, provided the other countries in which it operates are not also in recession. However, as the world economy becomes more integrated, there is a greater possibility that domestic economic cycles will become more directly linked, entering into periods of growth and recession at similar, if not identical, times.

2.5.6 Government incentives

Host government and home government policies and regulations can act as either pull or push factors for international business. 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, 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.

Home government policies that may induce a firm to move its operations offshore include high company tax, anti-merger competition policies, and regulations governing environmental damage and employment practices.

2.5.7 Technology transfer

Technology transfer acts as a vehicle of economic integration. Technology is a key factor in the economic and social development of a country. New ideas of manufacturing methods, management structures and techniques, marketing activities and product design are transferred from one country to another. Most new technologies are developed in the R&D laboratories of the USA, Japan and Western Europe. Governments of other countries encourage foreign firms to transfer appropriate technologies to their economies. Moreover, technology represents a very significant trading opportunity. This is evident from the growth of businesses such as Google, IBM and Hewlett-Packard.

Technology is transferred through a number of channels. Trade is one channel. Technology is embodied in the imports of inputs and capital goods. Exporters need to keep informed about new products or processes in order to remain internationally competitive. The contact with foreign buyers is a source of new ideas and information on competing products, and provides feedback on the performance, quality and design of products.

Technology is also transferred through FDI, labour movements and licensing. Foreign firms may willingly transfer technologies and expatriate technicians and managers from their home country to a foreign country to achieve improved profitability and a competitive advantage. Using new or current technologies, production may be cheaper in a foreign location than in

the home location. Firms may also believe that they can gain a competitive edge in foreign markets by supplying technologically superior products. By making new technologies, skilled labour and managers available to foreign-based affiliates, the parent company can improve the competitive potential of these affiliates. Firms will also transfer technologies in order to take advantage of the financial, tax and other inducements offered by host governments. In addition, the transfer of technology provides an alternative source of revenue when there are financial and regulatory barriers to establishing subsidiaries in foreign countries. Rather than set up its own subsidiary, a firm may license foreign firms to use its technology in return for a royalty.

Trade, FDI and technology transfers are becoming more closely interconnected. Outward FDI can act either as a substitute for export trade or as a complement to it. To serve a foreign market, a firm could produce at home and export. Alternatively, it could invest in establishing a production facility in the foreign market. In this case, FDI is a substitute for exports. FDI can also promote exports, particularly the export of services. For example, the establishment of a production facility in a foreign country may require the export of high-value, technology-intensive component parts, plant and equipment from the home country. Highly skilled technicians from the home country may be needed to service this sophisticated plant and equipment. For the provision of services in a foreign country – for example, advertising, broadcasting, banking and insurance services – a firm will need to establish through FDI a commercial presence in the foreign country. Much technology is embodied in products, so FDI and trade are therefore channels of technology transfer. The growing interconnectedness of trade, FDI and technology transfer increases the international interdependence of national economies.

The Internet, which allows for the instant transfer of information, ideas and other forms of intellectual capital, can link individuals, businesses and governments globally. It can also enable the transfer of money through e-commerce. While there is greater capacity to communicate globally, there are also significant savings to be made. The World Information Technology and Service Alliance (WITSA) estimates that the global market place for information and communications technologies was worth more than US\$4 trillion in 2010.

QUESTIONS

- 1 Give 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 What marketing advantages can a firm 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.

2.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 A growing proportion of international trade is intra-industry trade.
- 2 Globalisation has a more significant impact on the gap between high-skilled and low-skilled wages than advances in technology.
- 3 Globalisation ensures national independence.
- 4 To be labelled as a multinational company, a company must operate in at least ten countries.
- 5 The shift towards a more integrated and interdependent world economy is referred to as globalisation.
- 6 Companies hope to lower their overall cost structure or improve the quality or functionality of their product offering through globalisation of production.
- 7 The World Bank has focused on policing the world trading system and making sure nation-states adhere to the rules laid down in trade treaties.
- 8 Rivers Inc, a US-based sports apparel manufacturer, sets up a production unit in China to take advantage of the lower labour costs there. This is an example of foreign direct investment.
- 9 The globalisation of markets and production and the resulting growth of world trade, foreign direct investment and imports all imply that firms are finding their home markets protected from foreign competitors.
- 10 The expansion of world trade implies that nations are becoming less dependent on each other for important goods and services.

2.2 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 market place; 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

2.3 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 Developments that have supported the expansion of international business are:
 - A the advances in information and communications technology.
 - B the liberalisation of trade and investment.
 - C the privatisation of government business enterprises.
 - D all of the above.
- 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 The threat of capital flight can constrain a government's choice in setting:
 - A a higher interest rate.
 - B a higher tax.
 - C higher environmental standards.
 - D all of the above.

Review of Chapter 2

- 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 *not* an effect of globalisation?
- A increased volume of foreign direct investment
 - B increased convergence of world economies
 - C increased levels of tariffs
 - D increased rates of investment
- 12 Which of the following is *not* a role 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 is *not* an indicator of globalisation?
- A** an increase in international trade flows
 - B** an increase of labour mobility within nations
 - C** the increase in activity in the Australian stock market
 - D** the increase in 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.

2.4 Short response questions

- 1** List the two essential elements of the definition of 'multinational corporation'.
- 2** Outline 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** Outline three factors contributing to the growth of globalisation.
- 10** Explain how natural factor endowments contribute to the growth of multinational corporations.

2.5 Activities

- 1** Investigate the activities of five of the world's largest multinational corporations. Information on each can be obtained from the Internet by searching for the company, and by using the links provided on NelsonNet:
 - Unilever – the world's biggest food and soap company, with outlets in 150 countries round the world, selling products as diverse as Omo washing powder, Lipton tea, Dove soap and Magnum ice-cream
 - Gazprom – the biggest company in Russia and the largest gas company in the world – and only a decade old



Unilever

Gazprom

Levi's

Shell

McDonald's

- Levi's – the company that invented jeans and has been in business for 150 years
- Shell – the energy company that operates in 140 countries and, through a chain of petrol stations, claims to run the largest retail network in the world
- McDonald's – the world's best-known fast-food brand with more than 30 000 restaurants in 120 countries.

2.6 Inquiries

Select one inquiry topic from the list below (or create your own) and, following a selected inquiry model such as the economic model for problem solving, conduct an inquiry that can be presented to your class.

- 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 Consider whether the shift towards a more integrated and interdependent global economy is a good thing. Discuss 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.

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 2
answers



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3

Exchange rates

Exchange rates express the value of one currency in terms of another currency.

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?

To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:

- 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.

A common misconception is that international trade involves the direct exchange of commodities between nations. Even though we speak collectively of Australia's trade with other nations, the actual trade is undertaken by individuals and firms, or by organisations acting on behalf of individuals and firms. 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



Use various Internet sites to 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.



Australian Bureau of
Statistics

Reserve Bank of Australia

Australian Parliamentary
Library

3.1 How are international payments made?

KEY IDEA

International transactions require a process by 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 so that the wages of employees can be paid and debts arising from the use of materials in the production process can be settled. The same applies to Japanese manufacturers who sell goods to Australia. They want to be paid in Japanese yen so that their manufacturing debts can be settled. How then is the problem resolved? Businesspeople do not need to carry supplies of all the currencies in the world. This would be much too messy and would not be very profitable, because there would be vast sums of money lying idle. Instead, the banking system in each country comes to the rescue.

Figure 3.1 provides a simple outline of the payment procedures followed when commodities are traded between nations. Let us suppose 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. When the actual payment is made will depend on the terms agreed between buyer and seller. Very often, payment is made when the importer receives shipping documents to indicate that the goods have been safely dispatched. However, the procedure is not set and varies according to the nature of the traded goods and the relationship between 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.

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

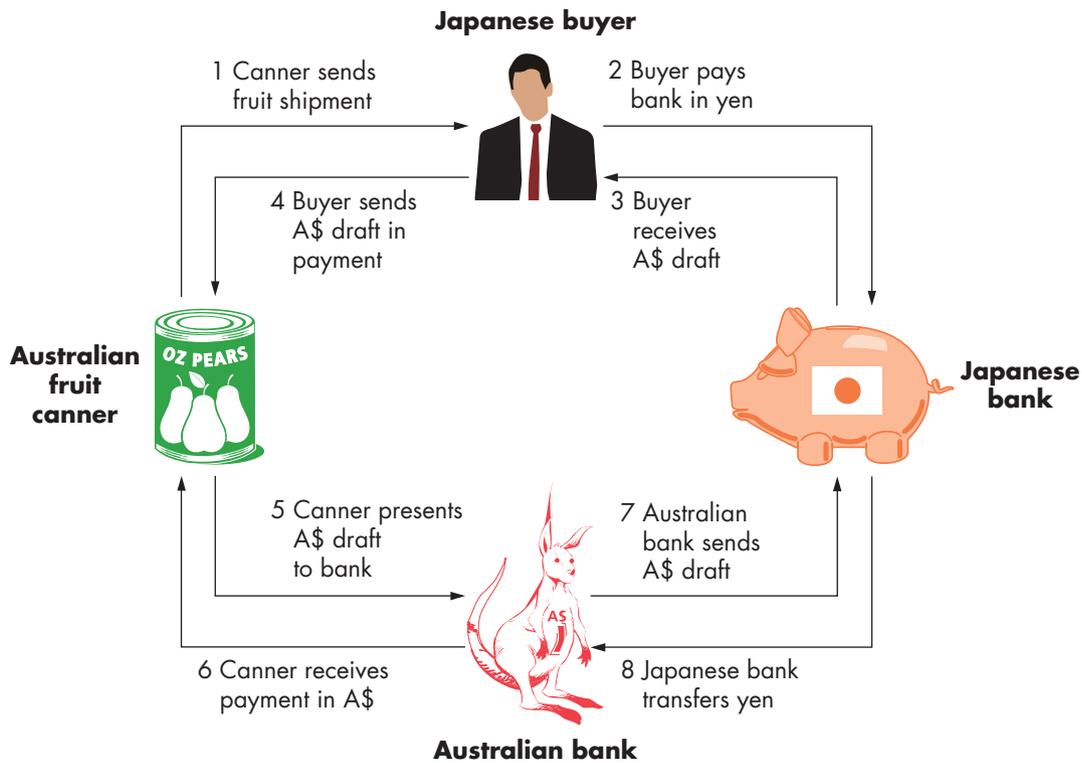


FIGURE 3.1 How foreign payments are made

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.

QUESTIONS

- 1 Why might transactions involving two nations be 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.

3.2 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

Currency devaluation: a deliberate downward adjustment to the value of

a country's currency relative to another currency, group of currencies or standard under a fixed exchange rate

Currency revaluation: a deliberate upward adjustment to the value of a country's currency relative to another currency, group of currencies or standard under a fixed exchange rate

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

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 merely expresses the value or purchasing power of the currency of a nation expressed in terms of the currency of another nation.

3.2.1 Value of exchange rate

It is important to understand that, when an exchange rate is established, the **cost structure** of all goods and services in one country is tied to the cost structure of all goods and services in another country. 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.

		If the exchange rate is	The Australian importer pays	The Australian consumer pays
French motor vehicle costs 80 000 euros		4 euros = A\$1	→ A\$20 000	→ A\$25 000
		5 euros = A\$1	→ A\$16 000	→ A\$20 000
German video camera costs 600 euros		1.5 euros = A\$1	→ A\$400	→ A\$500
		2 euros = A\$1	→ A\$300	→ A\$375
Japanese TV set costs 30 000 yen		80 yen = A\$1	→ A\$375	→ A\$469
		60 yen = A\$1	→ A\$500	→ A\$625

FIGURE 3.2 Application of exchange rates

(Note: We have assumed that there is a 25 per cent mark-up on the imported commodity.)

Figure 3.2 illustrates this very important relationship. We can see that a French motor vehicle that sells for €80 000 (euros) in France will cost the Australian importer A\$20 000 if the exchange rate is €4 = A\$1. The Australian consumer may then purchase the vehicle from the importer for A\$25 000. (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 €5 = A\$1, the Australian consumer will pay less for the same motor vehicle. The situation illustrated here would arise 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 motor 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 3.2 also illustrates the case of a German video camera imported into Australia. This time we are also dealing with the conversion of euros into Australian dollars. If the German price of the video camera is €600, and the prevailing exchange rate is €1.5 = A\$1, the Australian importer will pay A\$400. If the exchange rate is altered to €2 = A\$1, the importer will pay A\$300. 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 video camera will fall.

The third example in Figure 3.2 differs from the other two. This time we have the case of a Japanese television set costing ¥30 000 (yen). 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.

3.2.2 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. Under the former fixed exchange rate, an increase in the value of the dollar was called a **currency revaluation** – the result of a deliberate decision by the Reserve Bank of Australia (RBA) and the Australian Government to increase the value of the Australian dollar.

3.2.3 Australian dollar depreciation

As we have seen, 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. Under the former fixed exchange rate, a decrease in the value of the dollar was called a **currency devaluation** – the result of a deliberate decision by the RBA and the Australian Government to decrease the value of the Australian dollar.

3.2.4 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 their own 'office hours', or when their share market and banks are open. Speculators sometimes buy and sell currencies in expectation of making a financial gain.

ECONOMICS AND ICT



The Internet has simplified the calculation of the exchange rates for currencies, and the amount of currency needed to purchase another country's currency.

1 Using the websites 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. Use the ready calculators on the site of the Commonwealth Bank of Australia, Westpac Bank or the National Australia Bank. 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 the newspaper, or the historical data available from the Australian Bureau of Statistics or the 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.



Commonwealth Bank of
Australia

Westpac Bank

National Australia Bank



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 factor incomes, 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 readily seen if we imagine that the commodities listed in Figure 3.2 are Australian exports and that foreign importers are buying the commodities for their home markets. Let us focus for a moment on motor vehicles. Imagine that a French importer buys Australian motor vehicles at A\$20 000 each. If the exchange rate is A\$1 = €4, the French importer must pay €80 000 for each vehicle. If the Australian dollar appreciates or the euro depreciates so that the exchange rate becomes A\$1 = €5, the importer must pay €100 000 for the same vehicle. On the other hand, if the Australian dollar depreciated or the euro appreciated so that the exchange rate was A\$1 = €3, then the importer would pay only €60 000 for the same vehicle.

Some effects of a depreciation or appreciation of the Australian dollar are shown in Figure 3.3.

FIGURE 3.3 Effects of changes in Australian exchange rates

Depreciation of A\$	Appreciation of A\$
<ul style="list-style-type: none"> • 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 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 interest rates to slow down the depreciation of the dollar, and this may have an impact on domestic consumption and investment. 	<ul style="list-style-type: none"> • 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.

QUESTIONS

- 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** Why is an exchange rate important for a nation?
- 3** Which economic institutions are involved in the exchange rate process?

ECONOMICS IN ACTION

**FIGURE 3.4** 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

(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 the consequences? Justify the decision that you make.

3.3 Types of exchange rates

CONCEPTS



Fixed exchange rate: the value of a currency that is determined by the government fixing it to the value of another currency at a certain level, and guaranteeing to maintain that level

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

Gold exchange standard: the system used by many countries until the late 1960s to determine the value of their currency; based on the fact that the value of the US dollar was fixed to the value of gold; that is, US\$35 = 1 ounce of gold

Pound sterling: the currency of the UK

Since the Second World War (1939–45), nations have used a variety of methods to maintain exchange rates. In July 1944, representatives of the Allied nations gathered at Bretton Woods, New Hampshire, USA, for the United Nations Monetary and Financial Conference. One outcome of the conference was the establishment of the International Monetary Fund (IMF), an organisation set up to maintain international monetary stability. Until about 1968, member nations of the IMF based their exchange rates on what was commonly known as the **gold exchange standard**. Basically, this meant that the value of currencies was fixed to the value of the US dollar, the value of which was, in turn, related to the price of gold. This was called a ‘pegged’ or **fixed exchange rate** system.

How does a fixed exchange rate work? Consider the situation in Figure 3.5. In this case, under a fixed exchange rate system, the market rate for Australian dollars is 65 cents, while the government has fixed the Australian dollar at an artificially high rate of 72 cents. At this rate, which is above the market equilibrium level, the supply of Australian dollars exceeds demand by A\$6 billion. The government can maintain this fixed rate by intervening in the market and buying A\$6 billion in exchange for foreign currency. The government would use reserves of foreign currency or gold to conduct these purchases. The RBA could also fix the exchange rate below the market value and create a situation in which the currency is undervalued and the RBA will have a surplus of foreign currency. An undervalued currency creates an increase in the money supply, and stimulates economic growth and employment.

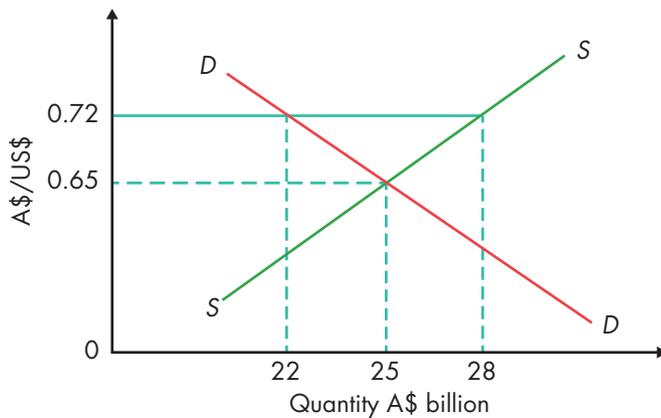


FIGURE 3.5 A fixed exchange rate

Under the fixed exchange rate system, member nations of the IMF were obliged to maintain the value of their currencies relative to the value of the US dollar. Minor fluctuations of up to 1 per cent were permitted without a nation first having to seek the approval of the IMF. However, this condition was broken by many nations, including the UK.

FIGURE 3.6 Advantages and disadvantages of a fixed exchange rate

Advantages	Disadvantages
<ul style="list-style-type: none"> The stability and predictability of the exchange rate encourages growth of international trade and enables easier long-term planning for industry. 	<ul style="list-style-type: none"> A stock of international reserves and gold is required to maintain the artificially high or low value. It is open to speculation. Changes tend to occur in large steps, so they can have large impacts on the economy. Surpluses or deficits in the balance of payments can create internal instability, such as inflation.

By the late 1960s, the US economy was experiencing severe balance of payments difficulties and confidence in the US dollar began to wane. The US Government was unwilling to devalue because it felt a responsibility to maintain confidence in the US dollar. However, in August 1971, the US Government decided to discontinue the US dollar's convertibility into gold when it became apparent that the nation no longer possessed sufficient gold reserves to support its liquid liabilities throughout the world. By 1973, after several devaluations of the US dollar, the fixed exchange rate system had disintegrated. In June 1972, the UK decided to adopt a **floating exchange rate** system for the **pound sterling**. The UK was followed in March 1973 by the countries of the European Economic Community, which tied the values of their own currencies and then floated them jointly against the value of the US dollar.

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, 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 would 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.

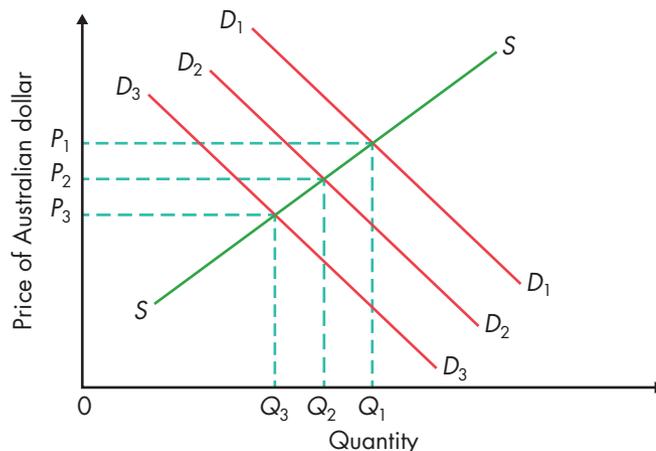


FIGURE 3.7 Effects of government intervention on the floating Australian dollar

A managed float can be explained by reference to Figure 3.7, 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 .

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.

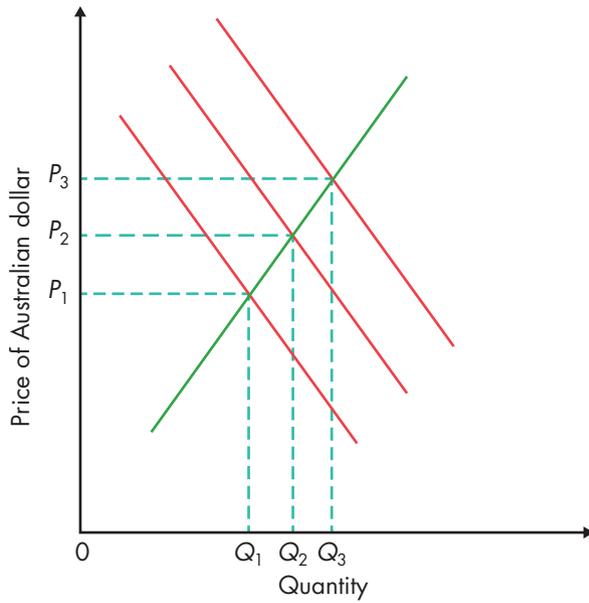


FIGURE 3.8 Effects of government intervention after appreciation of the Australian dollar

Similarly, Figure 3.8 shows the case where the dollar appreciates to a level considered too high, and the government sells Australian dollars in the market place, and increases its stock of foreign currencies.

3.3.1 Factors affecting demand and supply for 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.
- Speculation in the foreign exchange market that the Australian dollar is about to appreciate will encourage an increase in demand for the Australian dollar.

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 cashing-in of Australian dollars for other currencies.

Figure 3.9 shows the factors that affect demand for, and supply of, the Australian dollar.

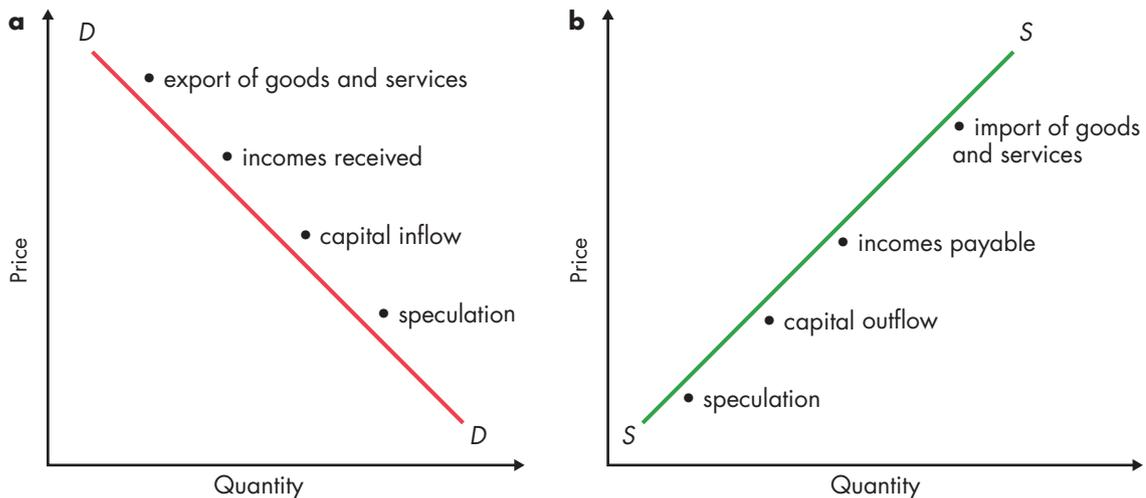


FIGURE 3.9 Factors affecting (a) the supply of and (b) the demand for Australian dollars

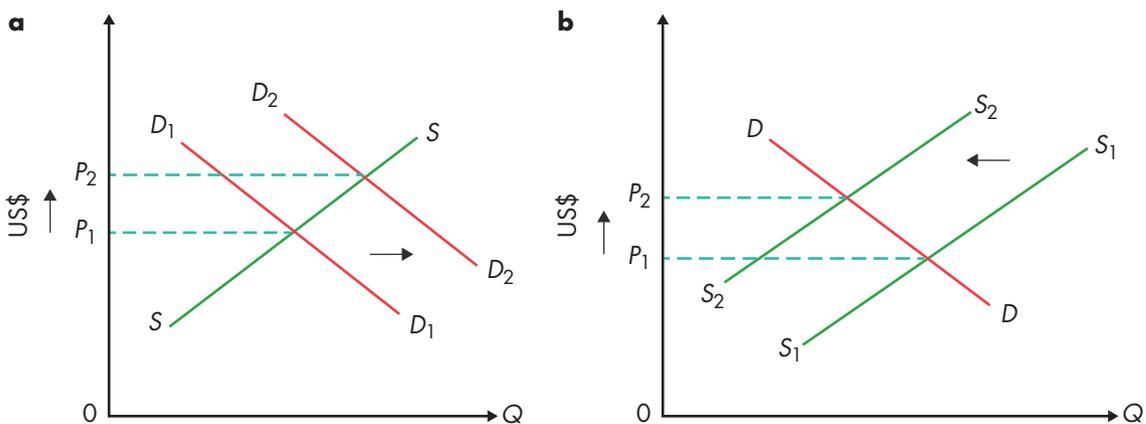


FIGURE 3.10 Appreciation of the Australian dollar due to changes in supply and demand: an increase in the demand for the Australian dollar in (a) from D_1 to D_2 will lead to an increase in the price of the Australian dollar in terms of the US dollar. Also, a decrease in the supply of the Australian 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.

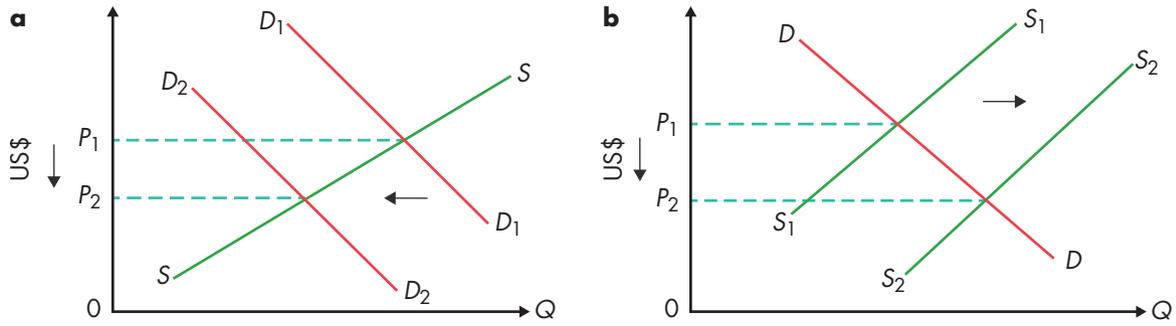


FIGURE 3.11 Depreciation of the Australian dollar due to changes in supply and demand: a decrease in the demand for the Australian dollar in (a) from D_1 to D_2 will result in a depreciation of the Australian dollar in terms of the US dollar. Similarly, in (b), an increase in the supply of the Australian 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.

Although the floating exchange rate system was seen initially only as a stop-gap measure for overcoming the monetary turmoil of the early 1970s, it has gained acceptance as a relatively efficient means of maintaining currency values. The floating system has removed some of the pressures that plagued governments under the fixed exchange rate system. Under the old system, governments frequently resorted to manipulation of their domestic money supply to support an artificial parity value for their currency. As mentioned earlier, in the late 1960s the US Government was reluctant to devalue the US dollar. Instead, it chose to expand its money supply. Finally it was realised that the US dollar was grossly overvalued and drastic measures had to be taken to restore external equilibrium. Under the fixed exchange rate system, if balance of payments conditions continued to deteriorate, massive devaluations were necessary to restore equilibrium. 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 3.12 Advantages and disadvantages of a floating exchange rate

Advantages	Disadvantages
<ul style="list-style-type: none"> • The balance of payments is always in equilibrium; that is, 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. 	<ul style="list-style-type: none"> • The volatility of exchange rates can create uncertainty for exporters and importers: see Section 3.5. • 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.

QUESTIONS

- 1
 - a What is meant by a floating exchange rate?
 - b Using a demand and supply diagram, explain how a floating exchange rate is determined.
- 2 What would be the result of a fall in the price of the Australian dollar?
- 3 Using a diagram, show how the demand and supply for Australian dollars would be affected by each of the following.
 - a an increase in US interest rates relative to Australian interest rates
 - b an increase in Australian inbound tourism for a large event such as the World Cup in a sport
 - c the signing of a free trade agreement between Australia and the United Kingdom.

3.4 How Australia's exchange rate is determined

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

Trade-weighted index: an index compiled on the basis of importance of trade; at one stage used in determining the value of the Australian dollar

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.

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. 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.

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.

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.

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 would no longer be burdened with the daily task of announcing the 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.

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 does have 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.

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.

The floating of the Australian dollar has virtually severed the influence of foreign exchange activity from our internal financial system. In the past, unpredictable flows of foreign capital had brought pressure to bear on our domestic interest rates and played havoc with the government's attempts to control the domestic money supply. Previously, the RBA was obliged to buy quantities of foreign currency entering the country. This required the exchange of foreign currency for Australian dollars and ultimately led to the release of more dollars into our domestic money supply. Situations such as this would often occur when the government's aim was to restrain money supply growth.

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.

QUESTIONS

- 1 Why would the RBA want to intervene in the market for Australian dollars?
- 2 What is the difference between a clean float and a managed or 'dirty' float?
- 3 When has the RBA intervened in the market place and why?
- 4 What factors explain the changes in the level of the Australian dollar?

ECONOMICS CHALLENGE

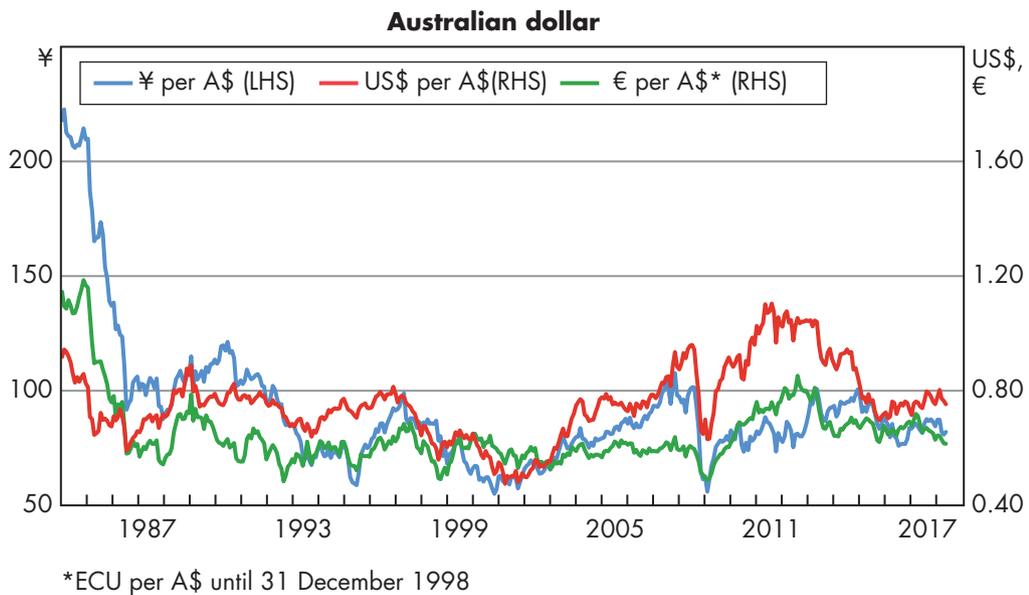


Exchange rates now vary on a daily (and sometimes hourly) basis. Figure 3.13 shows the value of the Australian dollar against the euro and the Japanese yen, and Figure 3.14 shows the movement of the Australian dollar. These graphs show the extent to which the Australian dollar moves in value over time.

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



RBA Chart Pack



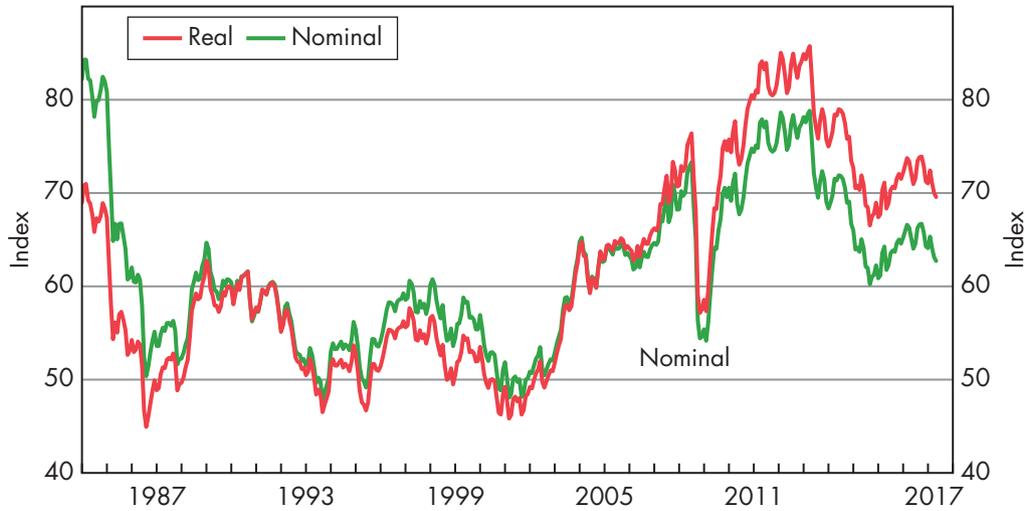
Source: © Reserve Bank of Australia, 2001–2018. All rights reserved.

FIGURE 3.13 The Australian dollar against the US dollar, the euro and the yen





Australian dollar trade-weighted index*



* May 1970 = 100 for nominal; real indexed to equate post-float averages; latest observations for real TWI are estimates

Source: © Reserve Bank of Australia, 2001–2018. All rights reserved.

FIGURE 3.14 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 the peak in August–September 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.
- 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?

3.5 Forward-exchange facilities

CONCEPTS

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

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

sale of commodities on a date specified in the future

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

Perhaps the greatest disadvantage of the floating exchange rate system is that businesspeople are faced with uncertainty about future movements in the values of international currencies. Because of time lags involved in finalising trade transactions, businesspeople 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 business takes the precaution of insuring against exchange risk or incorporating into sales contracts provisions that guard against exchange fluctuations, it stands to lose substantially if exchange rates fluctuate against the business.

To offset the element of exchange risk in trade transactions, Australian trading banks offer forward-exchange facilities. This means that businesspeople 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 businesspeople 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 businesspeople 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 also saw 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.

3.6 The terms of trade

3.6.1 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

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** is 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 will thus 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 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.

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 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 price 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.

Australia's terms of trade have become more favourable since 2000, as seen in Figure 3.15. This is a reflection of the mining boom experienced since then.

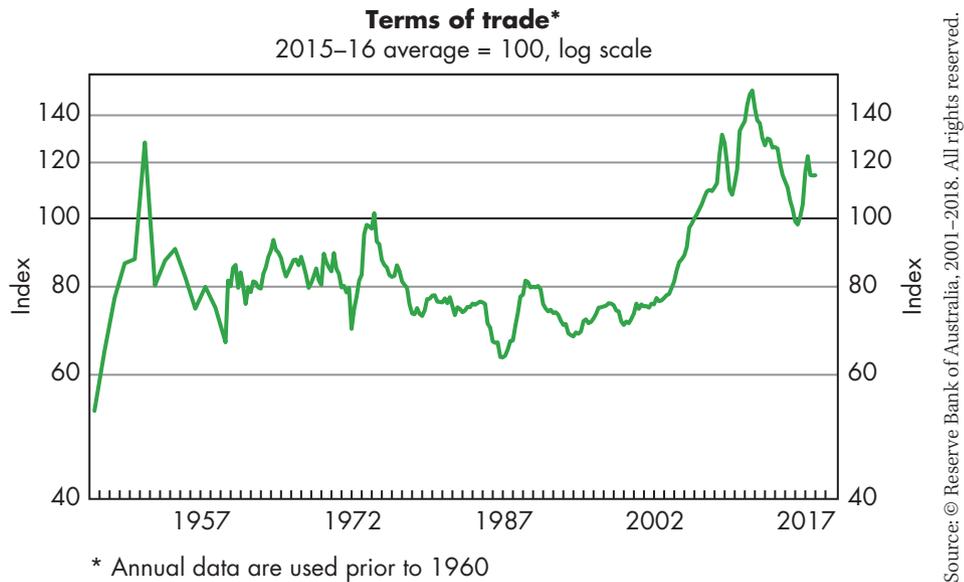


FIGURE 3.15 Australian terms of trade

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 note the movements over the last few years.



RBA Chart Pack

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.

3.6.2 Effects of changes in the terms of trade

There is a close relationship between changes in the terms of trade and the balance on current account (see Chapter 4). 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 in the fall in the terms of trade may be an improvement in the value of exports and the balance on 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 on 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 on 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 high 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.

QUESTIONS

- 1 When are a country's terms of trade favourable?
- 2 When are a country's terms of trade unfavourable?
- 3 Why do prices for imports and exports vary over time?
- 4 Why has Australia experienced favourable terms of trade since 2000?
- 5 What is the relationship between balance on current account and changes in the terms of trade?
- 6 How is the exchange rate affected by the terms of trade?
- 7 How could a decline in the terms of trade affect employment in Australia?

3.7 Government policy and exchange rate movements

KEY IDEA

Changes in the exchange rate can affect government policy. Governments need to ensure 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 these. For example, after a depreciation of the Australian dollar, we can expect the prices of petroleum to rise almost immediately. 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 market place, 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.

3.7.1 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 the development of 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 exports. If there is an appreciation, the volume of exports will fall, as our exports will become dearer in the international market place. Similarly, if there is a depreciation, the volume of exports will rise, as our exports will become cheaper in the international market place.

Exchange rates affect the labour market

When an appreciation occurs, Australian goods become more expensive relative to overseas goods, and foreign firms will demand less of our goods and services. At the same time, imported goods and services 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 and develop 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 band.

It would be necessary for the government to alter or change the existing policies in these situations.

3.7.2 Effectiveness of government response

Government policy response to exchange rate movement needs to be evaluated using a number of criteria. These could be as follows:

- **The impact on employment in trade-exposed industries:** government needs to minimise any 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 is the (often measurable) ability to avoid wasting materials, energy, efforts, money and time in doing something or in producing a desired result. In a more general sense, it is the ability to do things well, successfully and without waste. If the maximum efficiency possible can be achieved, then economic growth will be enhanced. You should consider allocative efficiency and dynamic efficiency:
 - 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



Using the Internet and newspapers, locate two or three articles that refer to the impact of an exchange rate movement on the Australian economy. Try to locate major movements when there has been a prolonged appreciation or depreciation of the Australian dollar.

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.

3.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 Depreciation of our currency tends to decrease the price of imported commodities, thereby making them more attractive to domestic consumers.
- 2 When an Australian business exports goods or services overseas, they expect to receive payment in Australian dollars.
- 3 The US dollar is the major currency held as part of Australia's official reserve assets.
- 4 The exchange rate is the price of one country's currency in terms of another currency.
- 5 A decrease in demand for Australia wool increases the demand for Australian dollars.
- 6 When Australian firms invest in China, the supply of Australian dollars falls on the foreign exchange market.
- 7 An appreciation of the Australian dollar will make imports cheaper.
- 8 A fixed exchange rate is one that is determined by market forces.
- 9 Under a floating exchange rate, a decline in the value of the Australian dollar is known as a devaluation.
- 10 A managed exchange rate is controlled by the Australian Government.

3.2 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 Gold exchange standard | G Fixed exchange rate | |
| D Exchange rate | H Terms of trade | |

- 1 The system used by many countries until the late 1960s to determine the value of their currency; based on the fact that the value of the US dollar was fixed to the value of gold; that is, US\$35 = 1 ounce of gold
- 2 A decrease in the value of a currency relative to other currencies under a floating exchange regime
- 3 An index compiled on the basis of importance of trade; at one stage used in determining the value of the Australian dollar
- 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 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 The value of a currency that is determined by the government fixing it to the value of another currency at a certain level, and guaranteeing to maintain that level

3.3 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.
- 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 Appreciation of the Australian dollar is most likely to:
 - A increase the value of foreign currency in terms of the Australian currency.
 - B make Australia less attractive to foreign investment.
 - C lower the value of overseas reserves.
 - D all of the above.

Review of Chapter 3

- 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 If the Australian dollar appreciated against the euro, then one result would be that:
- A Australian wool would be more expensive in Germany.
 - B French tourists would receive more Australian currency in exchange for euros.
 - C the demand for Australian goods by the Netherlands would increase.
 - D all of the above.
- 9 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.
- 10 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
- 11 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.
- 12 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.
- 13 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.

- 14 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.
- 15 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.

3.4 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 List 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.
- 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 the interest rate in the USA might have on the Australian dollar.

3.5 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.
- Export price index 220
Import price index 200
 - Export price index 174.5
Import price index 193.2

Questions 3–8 relate to Figure 3.16.

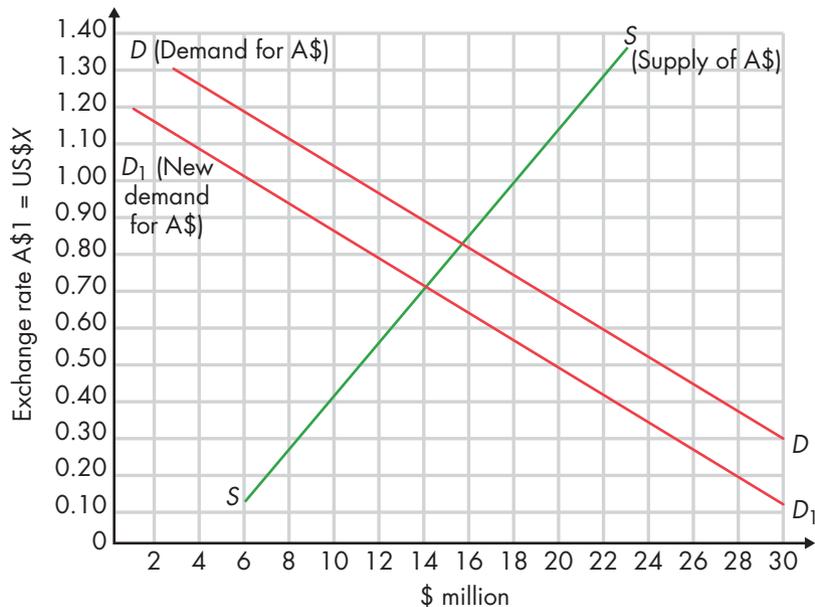


FIGURE 3.16 Exchange rate

- 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.
- As a result of this, what is the new US\$ to A\$ exchange rate?
 - Which of the following could *not* have contributed to the decrease in demand for the Australian dollar?
 - a decrease in Australian exports of wool
 - an increase in imports of Japanese motor vehicles
 - a decrease in foreign tourists visiting Australia
 - a fall in US investment in Australia

Review of Chapter 3

Review of Chapter 3

- 5 Imagine the Australian Government decided to manage the float and attempted to prevent the Australian dollar falling below A\$1 = US\$0.80.
- Would there be a shortage or a surplus of the Australian dollar?
 - Would the Reserve Bank of Australia have to buy or sell Australian dollars?
 - How many Australian dollars would be bought or sold?
 - What would happen to Australia's international reserves as a result of this intervention?
- 6 Of the following groups, who would gain and who would lose as a result of this managed float?
- exporters
 - importers
 - import-competing industries
 - foreign tourists in Australia
- 7 Using Figure 3.17, calculate the terms of trade for Ozland. In which year/s did Ozland experience a favourable movement in its terms of trade?

FIGURE 3.17 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	

- 8 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.
- an increase in export sales from Australia
 - a fall in purchase of imports by Australians
 - a fall in investment from overseas in Australia
 - a move by the Reserve Bank of Australia to use its reserves to buy up Australian dollars on the foreign exchange market
 - a decline in overseas aid provided by the Australian Government

3.6 Inquiries

- 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 Develop a web page or PowerPoint presentation that traces the impact of major domestic and world events on the value of the Australian dollar.
- 3 Select two examples of recent movements in the exchange rate for the Australian dollar. For each one, research the reasons behind the movement and the effects of the movement, including the groups within the economy that could be affected.
- 4 'An exchange rate policy is the method by which the government allows the exchange rate to be determined, and the extent to which the government may decide to influence it. The usual government policy is to allow sufficient intervention to smooth out temporary fluctuations.' Explain how this definition could be applied to the Australian situation. In your opinion, should the Australian Government maintain a floating exchange rate policy?
- 5 Distinguish clearly between freely floating and fixed exchange rates. What are the methods of maintaining fixed exchange rates, and what are the relative merits and disadvantages of fixed and floating systems? Which system is the best for Australia? Provide examples as part of your analysis.

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 3
answers

Review of Chapter 3



Getty Images/xPACIFICA

4

The balance of payments

A study of Australia's balance of payments examines how Australia records its international payments and 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 the current account trends?
- What are the causes and effects of the capital account trends?
- What is the significance of foreign debt and foreign investment?
- What is the significance of movements within the balance of payments for particular groups?

To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:

- 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 a foreign debt
- whether foreign investment is beneficial to Australia

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

The efforts of nations to carefully monitor their receipts from exported commodities and their expenditure on imported commodities is not very different from those of a household keeping a watchful eye on the relationship between its income and its spending on goods and services. 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 desperately in need of borrowing additional reserves. Floating exchange rates, different currencies and intervention by governments and central banks complicate the situation.

4.1 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

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

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

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.

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.

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.

4.1.1 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 4.1. 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 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.

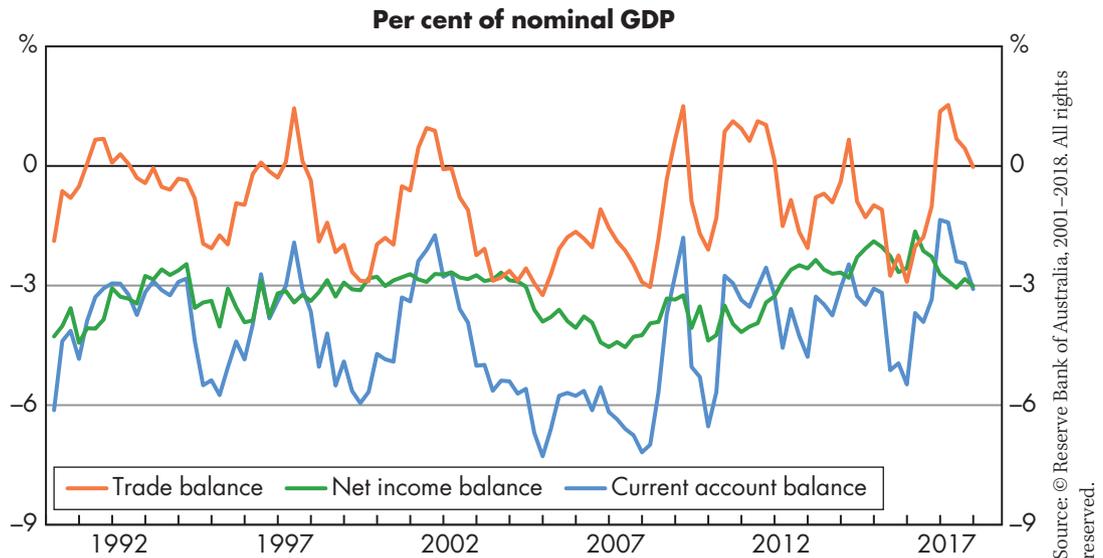


FIGURE 4.1 Australia's balance on current account 1990–2017



Australian Bureau
of Statistics
Reserve Bank
of Australia

ECONOMICS DATA



Use either the Australian Bureau of Statistics website or the Reserve Bank of Australia website to locate the most recent statistical or graphic data showing the Australian 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 foreign sector has on our economy. Figure 4.2 shows the current account balance (and imports, exports and balance on goods and services) as a percentage of GDP.

Source: Australian Bureau of Statistics. Creative Commons (CC BY 2.5 AU) (<https://creativecommons.org/licenses/by/2.5/au/>)

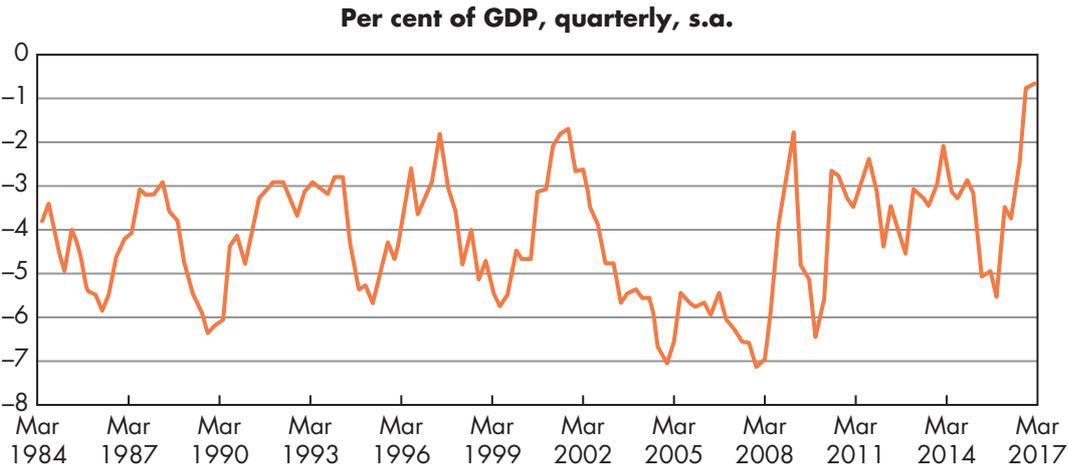


FIGURE 4.2 Australia's current account balance as a percentage of GDP 1984–2017

ECONOMICS DATA



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



Australian Bureau
of Statistics
Reserve Bank
of Australia

4.1.2 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 it 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 the International Monetary Fund (IMF).

(Note: 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.

It should be evident from Figure 4.3 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 4.4 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. It should be evident that movement of funds through the capital and financial account can achieve fine-tuning of the balance of payments. Figure 4.5 should help to clarify the procedure used for deriving the balance of payments.

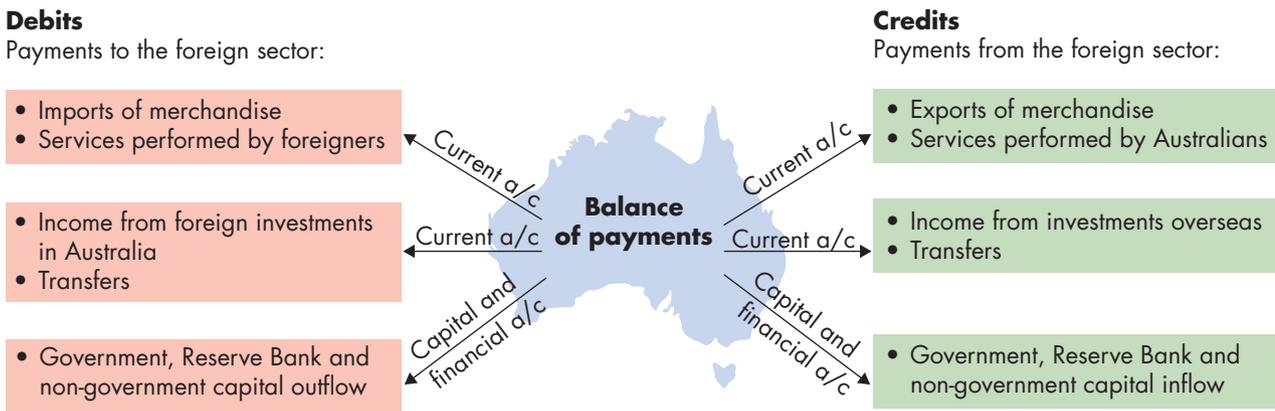


FIGURE 4.3 The balance of payments

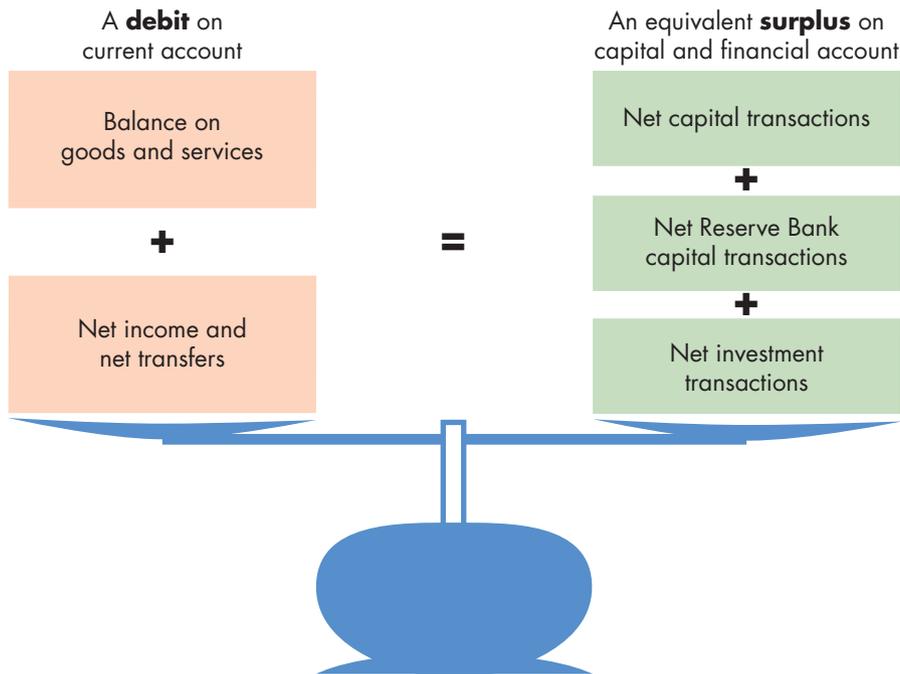
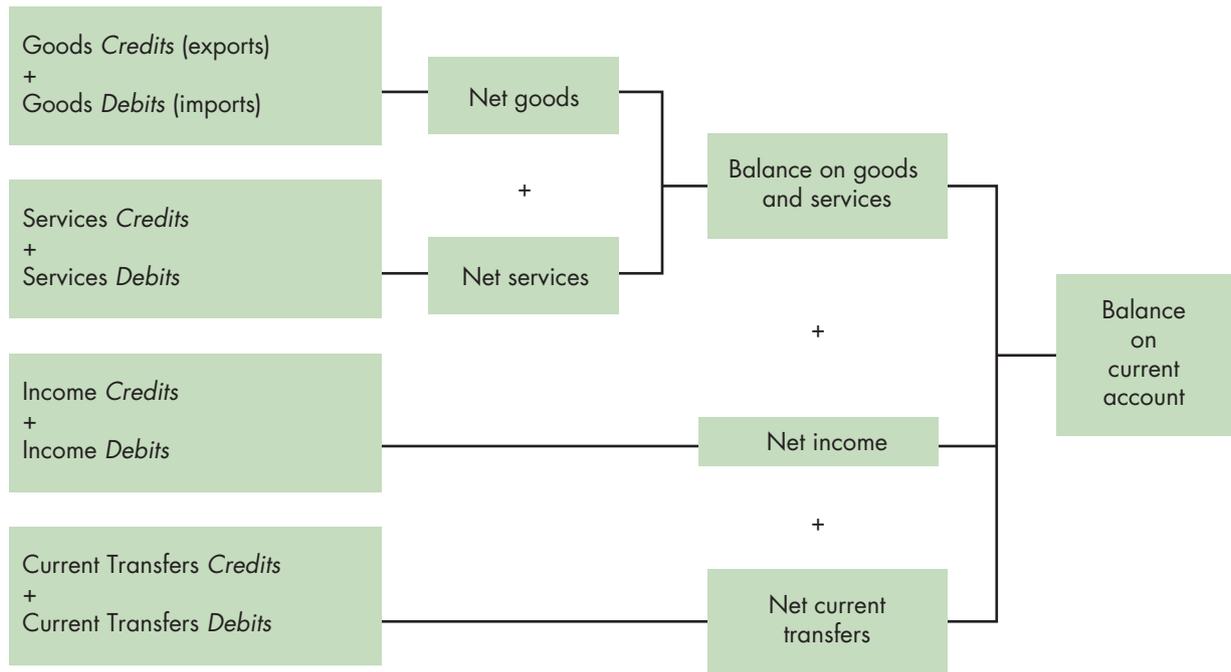
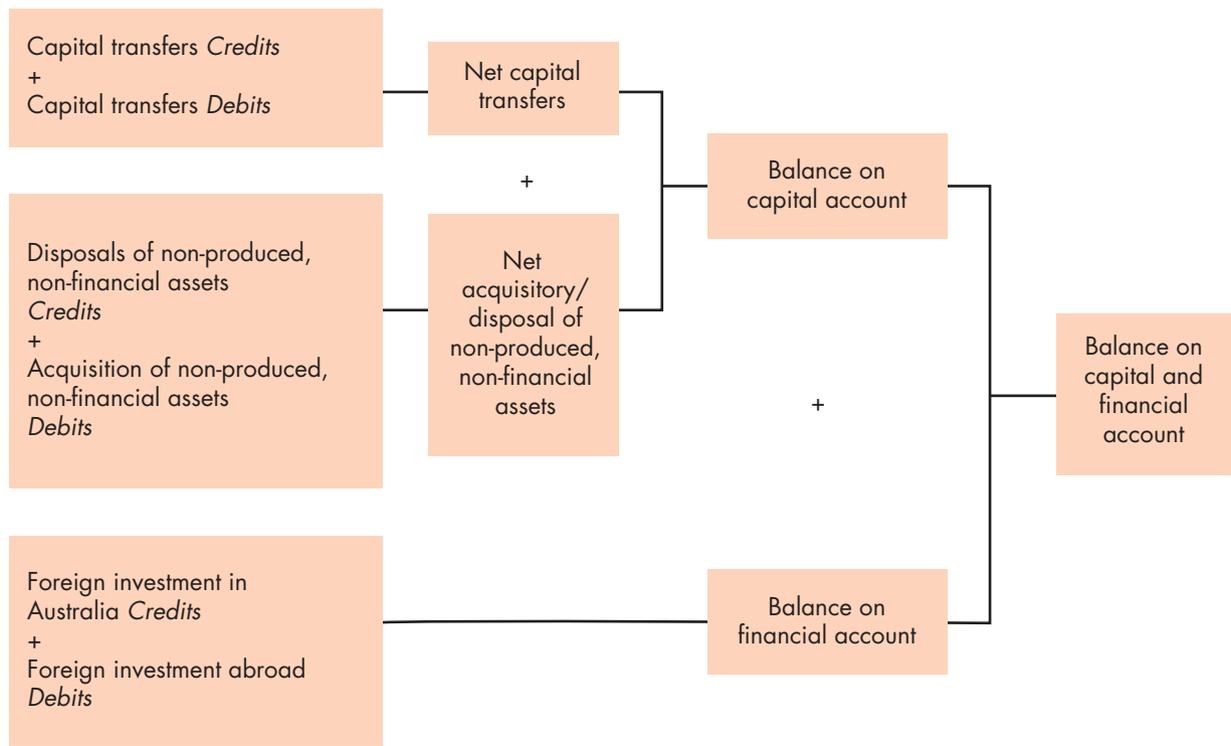


FIGURE 4.4 The derivation of the balance of payments

Current account



Capital and financial account



Source: ABS

FIGURE 4.5 The balance of payments in the current account and capital and financial account

QUESTIONS

- 1 What is meant by the balance of payments?
- 2 How is the balance on current account calculated?
- 3 How is the balance on capital and financial account calculated?
- 4 Why is a current account deficit balanced by a capital account surplus?

ECONOMICS IN ACTION



- 1 Refer to Figures 4.6 and 4.7.
 - 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.
- 2 Refer to Figure 4.8. Describe the trend in Australia's trade balance. Explain why there was a sudden increase in late 2016.
- 3 Refer to Figure 4.9. To what extent do the changes in commodity prices explain the trends in exports, imports and balance on goods and services?

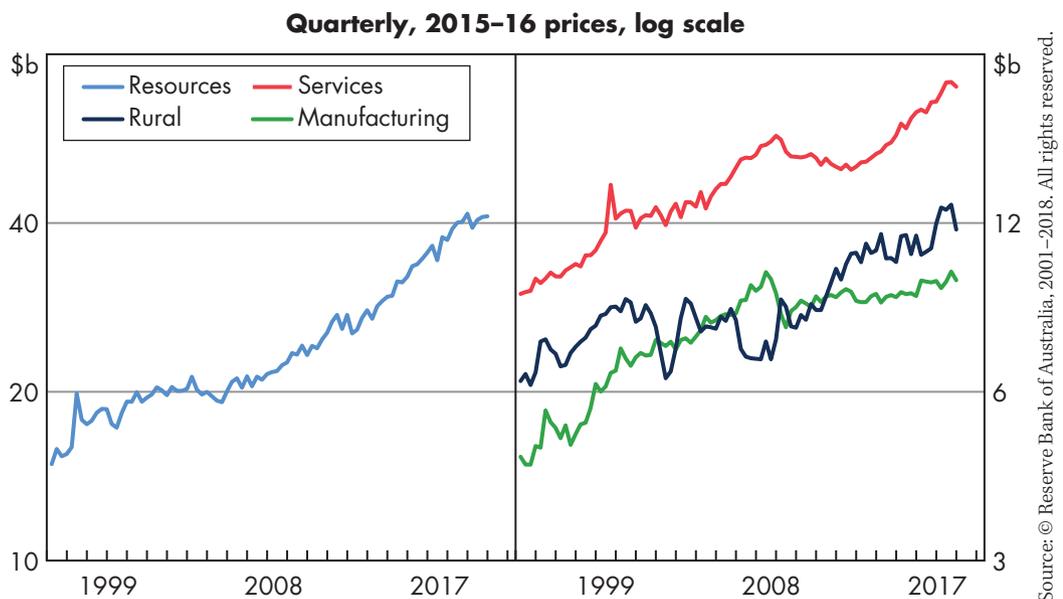


FIGURE 4.6 Australia's export volumes





Quarterly, 2015–16 prices, log scale

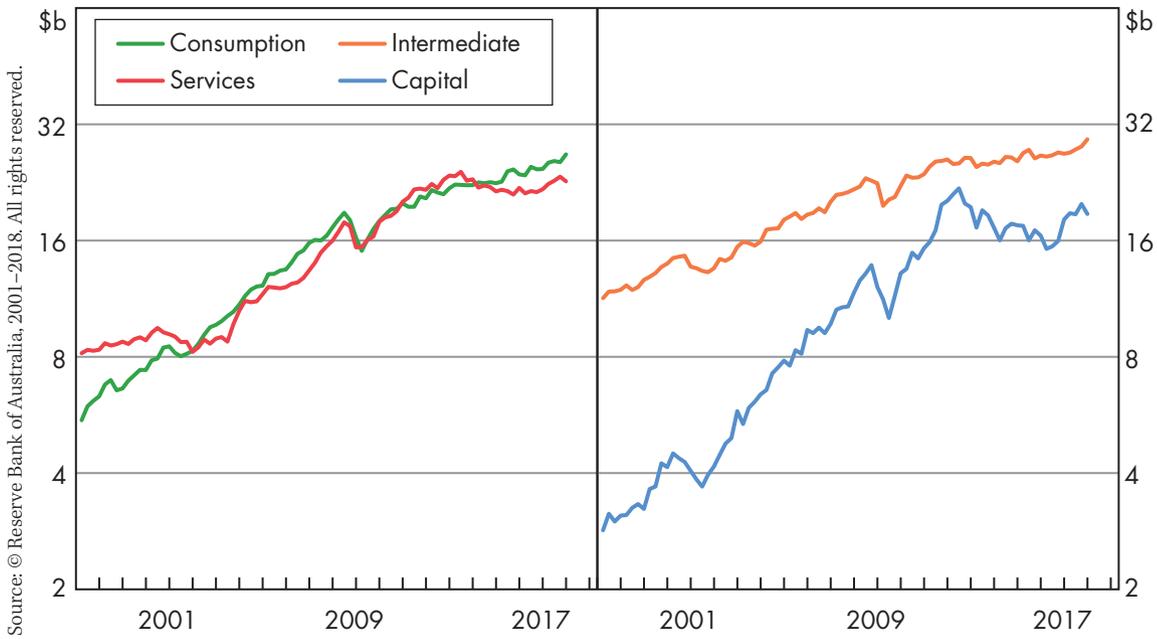


FIGURE 4.7 Australia's import volumes

Source: Trade Statistics. Department of Foreign Affairs and Trade. CC BY 3.0 AU licence. (<https://creativecommons.org/licenses/by/3.0/au/>)

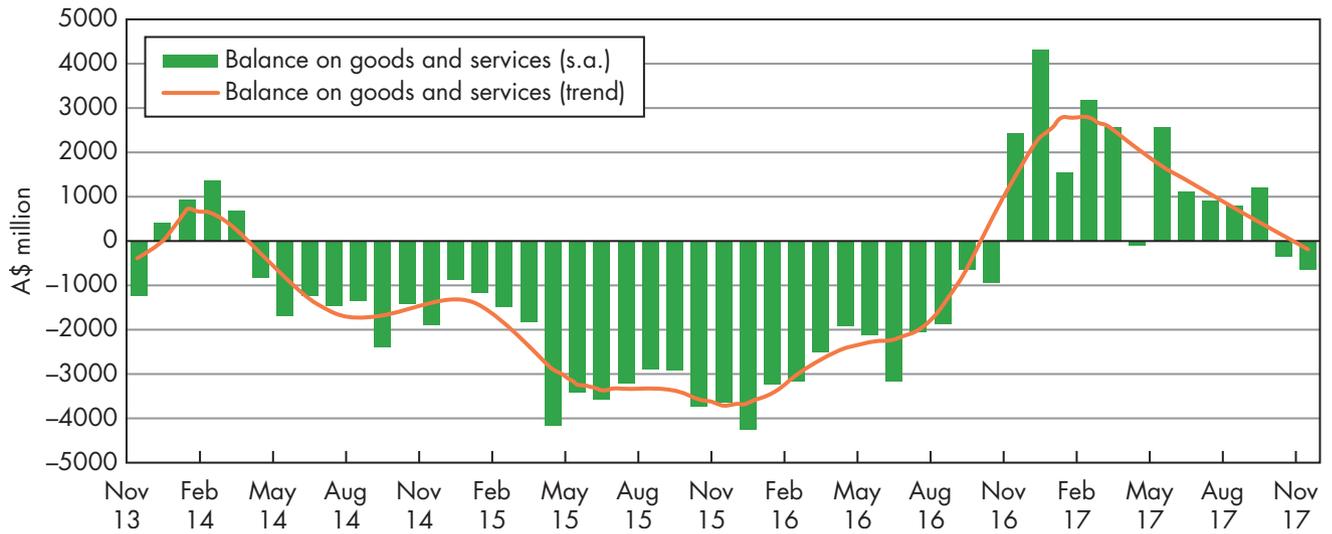


FIGURE 4.8 Australia's trade balance: seasonally adjusted and trend



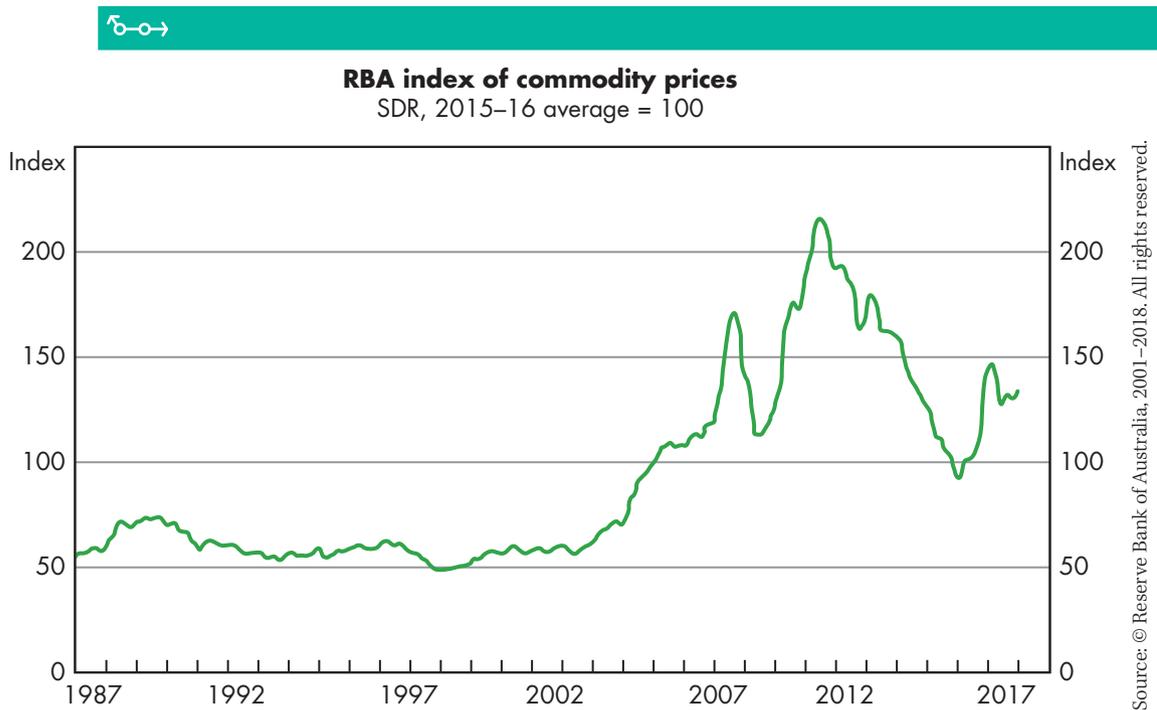


FIGURE 4.9 Australia's commodity prices

4.2 Balance of payments and the economy

CONCEPTS

External policy: measures taken 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 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.

The introduction of a floating exchange rate allowed the Federal Government to divorce **external policy** from **monetary** and **fiscal policies** directed at aspects of our internal economy. In the days of fixed exchange rates, governments would adjust the exchange rate in their efforts to rectify internal problems such as inflation or unemployment. Frequently, the attempt to solve an internal imbalance would create an external imbalance.

A floating exchange rate is, in theory, self-regulating and will find its own level according to the forces of supply and demand. Governments are now 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 earlier in Chapter 3, 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, the RBA has sometimes intervened to bolster the value of the dollar.

4.2.1 The current account

These days, governments are able to focus specifically on the economy's performance in the external sector and may introduce 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**. Macro-strategies may include fiscal policy measures aimed at stimulating export activity. Micro-strategies might include targeting specific firms and industries to encourage greater involvement in the external sector.

Figure 4.10 on the next page shows Australia's recent balance of payments tables. Australia usually records a deficit in the current account matched by a surplus in the capital account.

ECONOMICS DATA



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



Australian Bureau
of Statistics

Of particular concern is the size of the current account deficit. This has shown a downward trend in recent years.

Some of the major issues that affect the current account are listed below.

- Australia's main exports are commodities for which prices are determined by market factors of supply and demand. As a result, Australia is a price-taker, as our producers have little influence over world prices (except for coal and iron ore), and have to accept the prevailing world price. The fluctuating prices are reflected in the terms of trade.
- Australian exports are mainly demand-price elastic because there are substitutes readily available on the world market. This causes the prices of many Australian exports to fluctuate considerably over time. In addition, our agricultural production is affected by floods and droughts, resulting in fluctuating levels of production.
- Australia is a price-taker for imports, because of the small size of our domestic market. As a result, we are unable to exert influence over prices paid for imports.
- Australia could be said to be a dependent economy; that is, a country that is a price-taker for both imports and exports. A dependent economy is highly subject to cyclical fluctuations in the world economy.

FIGURE 4.10 Australia's balance of payments 2014–15 to 2015–16

Current account			Amounts are in A\$ million	
			2014–15	2015–16
Goods	Credits		255 525	243 934
	Debits		-269 796	-271 761
	Balance		-14 271	-27 827
Services	Credits		63 128	67 922
	Debits		-71 827	-76 993
	Balance		-8 699	-9 071
Balance on goods and services			-22 970	-36 898
Primary Income	Credits		52 795	55 808
	Debits		-85 903	-90 003
	Balance		-33 108	-34 199
Secondary Income	Credits		8 338	8 630
	Debits		-10 467	-10 362
	Balance		-2 129	-1 732
Balance on current account			-58 207	-72 828
Capital and financial account			2014–15	2015–16
Capital account	Net capital transfers		-519	-531
	Net acquisition/disposal of non-produced, non-financial assets		12	0
	Balance on capital account		2 167	2 075
Financial Account	Direct investment		37 498	55 242
	Portfolio investment		50 579	-4 322
	Financial derivatives		2 364	-12 248
	Other investment		39 687	-35 368
	Reserve assets		2 122	2 394
	Balance on financial account		52 875	76 435
Balance on capital & financial account			52 356	75 904
Net errors and omissions			5 851	-3 076

Source: © Reserve Bank of Australia, 2001–2018. All rights reserved, based on ABS data.

- The Index of International Competitiveness, which compares changes in domestic price, measures the international competitiveness of a country and its cost levels with those of other countries, allowing for exchange rate movements. Competitiveness is determined by the price and quality of goods compared with those of other nations. If the prices of goods produced in Australia increase relative to the prices of goods produced

overseas, or if overseas goods develop some non-price advantage over domestic goods, then Australia is said to have suffered a decline in international competitiveness. Such a decline reduces Australia's ability to export and increases our tendency to import, thus worsening the balance on merchandise trade. On the other hand, if Australian goods become more competitive, for price or non-price reasons, the balance on merchandise trade improves. The index is also affected by the exchange rate, with a depreciation resulting in a fall in the index, making Australian goods more competitive on world markets. Governments act to try to make Australia more competitive through prices and incomes policies; spending on research and development, worker training and education; and assisting exporters through Austrade.

- Structural adjustment – the shifting of resources from slow-growing sectors of the economy to fast-growing sectors – began under the Hawke and Keating Labor Governments and is a continuing process designed to make Australia more competitive. Structural adjustment policies include industry plans; the lowering of tariffs and the development of free trade agreements; the establishment of global marketing plans through Austrade; the encouragement of research and development to improve technology; and the encouragement of sunrise industries (new high-technology industries). Structural adjustment has taken place in six areas of the economy: reform of labour, product and money markets; public and private sector borrowing; external debt reduction; import penetration and replacement; diversification of exports; and redirection of business investment.
- The sustained deficit in services, income and unrequited transfers is a problem for Australia. As only 3 per cent of cargoes are shipped in Australian-flagged vessels, shipping has a considerable negative effect on the services section of the current account. Australia usually has a large deficit in the income section. The main reason for this is the cost of servicing external debt.

The current account deficit follows a cyclical pattern. It will increase 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 4.3). 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 control 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.

QUESTIONS

- 1 Compare the current account with the capital and finance account of the balance of payments.
- 2 Use the balance of payments data in Figure 4.11 to calculate:
 - a net goods
 - b balance on goods and services
 - c balance on current account
 - d balance on capital and finance account
 - e financial account.

FIGURE 4.11 Hypothetical balance of payments data for Australia (A\$ million)

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

- 3 Why is Australia a price-taker for its exports? Give an example.
- 4 Why is Australia a price-taker for its imports? Give an example.
- 5 What are the effects of a decline in international competitiveness?
- 6 How can a fall in the Index of International Competitiveness be achieved?
- 7 What is needed if Australia is to compete more successfully in international markets?
- 8 How do non-price features affect international competitiveness?

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 policies, 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 the criteria, is current government policy successful? Why, or why not?

4.2.2 The capital and financial account

ECONOMICS DATA



Visit the DFAT – International investment Australia web page 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.



DFAT – International
investment Australia

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 a company's shares in a foreign company to gain financial returns rather than to gain control of the business

The capital and financial account is the second part of the balance of payments figures in Australia. 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 size of transactions in this account is very small and 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.

- **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 a company's 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.

- **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.
- 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).
- 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 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.

Present your findings to the class using a PowerPoint presentation.

4.3 Foreign debt

CONCEPTS



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

Foreign debt: a debt owed by a nation to the rest of the world

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

Net foreign debt: gross foreign debt less Australian lending to overseas residents

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 2010, this had reached 51.7 per cent. Australia's **net foreign debt** expanded beyond A\$1 trillion for the first time on record in 2016, reaching 60 per cent of nominal GDP: see Figure 4.12. Net foreign debt in the December 2016 quarter came in at A\$1006 billion – an increase of 2.8 per cent on the previous quarter's A\$971 billion.

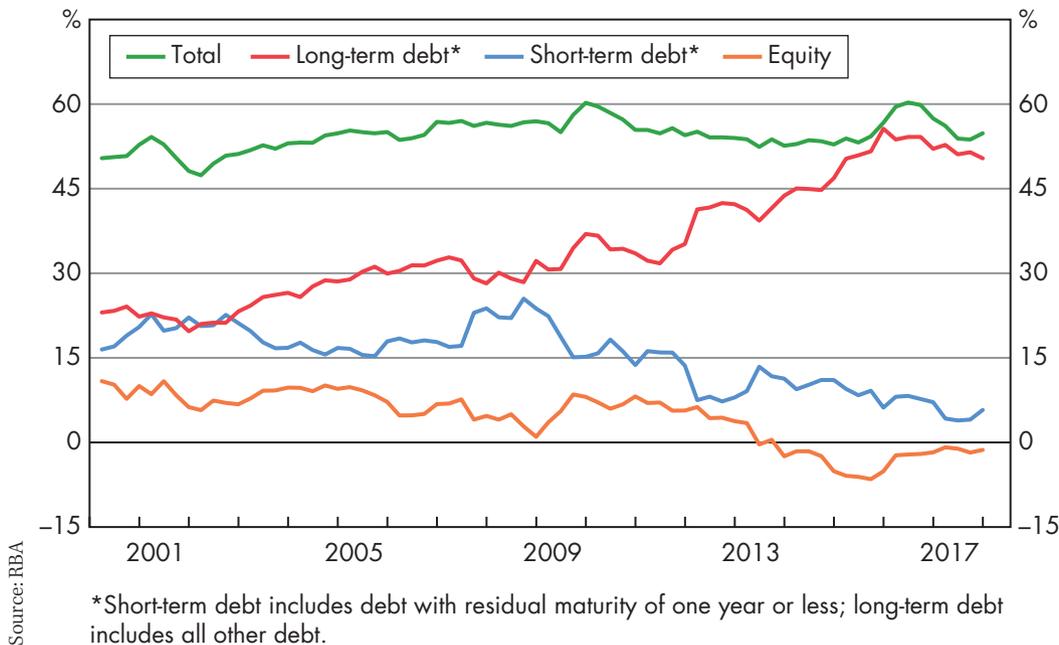


FIGURE 4.12 Australia's net foreign liabilities 2001–17, by type and percentage of GDP

ECONOMICS DATA

- 1 Use Internet sources such as the Australian Bureau of Statistics, the RBA and other appropriate sites to find:
 - a the latest value of Australia's gross and 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?



Australian Bureau
of Statistics
Reserve Bank
of Australia

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, and in 2018 was recorded as A\$2 005 834. 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.

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.



Australian Debt Clock

Go to the Australian Debt Clock website.

Use 30 minutes to answer the following.

- 1 Record the following at the start of the 30-minute period:
 - a total government debt
 - b total private debt
 - c total household debt
 - d personal debt
 - e credit card debt.
- 2 Read the website. Would this site appear to be a government site or a privately operated site? What information did you use to determine this?
- 3 What does the graph show Australia's debt will be by 2026?
- 4 Go to the ASIC Credit Card Debt Clock website and note the credit card debt of Australians. How does this compare to the Australian Debt Clock figure for credit card debt? Are the figures the same or different? Why might there be a difference? Which one do you think would be more reliable? Why?
- 5 Return to the Australian Debt Clock website. At the end of 30 minutes, note the levels of debt for the same items in Question 1 (a)–(e).
- 6 What do you notice about each debt category? Have they increased? Have any gone down? What might be some implications for Australia?



ASIC Credit Card Debt Clock

4.3.1 Causes of the external debt

The growth of the 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)
- 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.

4.3.2 The effects of foreign debt

A high foreign debt has a significant impact on the lives of Australians. These are as follows.

- **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. Such a depreciation increases the size of the foreign debt in domestic dollars.
- **Taxation:** in recent years, the government has given some tax relief to the workforce rather than wage rises. This is because wage rises will reduce the competitiveness of Australian goods and services. However, the increased income as a result of tax cuts has resulted in increased consumer spending.
- **Foreign debt decreases our export gains:** when gross external debt reaches about 160 per cent of exports of goods and services, there is cause for concern. Given the level of Australia's gross external debt, a major danger point for Australia has been reached. Clearly, such danger points are arbitrary, and are not based on any scientific principle. Essentially, they reflect historical experience which suggests that, once a country's debt or debt-servicing level reaches a certain point, it becomes politically difficult to institute the policies needed to ensure the debt servicing and repayment.
- **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:** 23 per cent of agriculture, 52 per cent of mining, 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.

QUESTIONS

- 1 What is the meaning of each of the following terms: gross foreign debt, net foreign debt, public foreign debt, private foreign debt?
- 2 What is 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.

4.3.3 Possible solutions to the external debt

Some possible solutions to Australia's external debt problem include:

- an increase in domestic savings, so reducing Australia's need to borrow from overseas
- an improvement in the balance of goods and services trading balance, by making Australian exports more internationally competitive
- a decrease in domestic demand, but being careful not to contract the domestic economy too much
- appreciation of the Australian dollar, which effectively reduces the external debt and 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.

The level of the external debt has been the subject of considerable debate among economists. 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 4.13 identifies some of the key arguments put forward in the debate. Clearly it is difficult to hold a definitive opinion on this question.

FIGURE 4.13 The external debt debate

The debt is not a problem	The debt is a problem
<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Debt servicing is becoming a problem as the income component in the current account deficit has increased 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, as 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.

QUESTIONS

- 1 Write a letter to the editor of a newspaper (no more than 300 words) outlining 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?
- 3 Following the Global Financial Crisis of 2008–09, the Rudd and Gillard Governments borrowed from overseas and increased the level of government external debt. Can such borrowings be justified? Explain your answer.

4.4 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

KEY IDEA

The foreign debt is the amount of money that Australian residents, both public and private, owe to the rest of the world. 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 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'.

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 monitor foreign investment. The functions of the board are to:

- examine proposals by foreign interests for investment in Australia and make recommendations to the government on these proposals
- advise the government on foreign investment matters generally
- foster awareness and understanding, both in Australia and abroad, of the government's policy
- work towards a high level of Australian equity participation in new investment projects
- provide guidance, where necessary, to foreign investors so that their proposals conform with government policy
- keep abreast of the activities of foreign-controlled businesses operating in Australia
- maintain liaison with state government authorities.

The board is assisted by an executive that is part of the Treasury and has available to it advice from other Commonwealth and state government departments and authorities. The government's approach to foreign investment is to encourage foreign investment that is consistent with the interests of the community. The largest number of foreign investment proposals to the FIRB involve the purchase of real estate. Governments aim to channel foreign investment in the housing sector into activity that directly increases the supply of new housing (for example, new development, home units, townhouses and so on) and to bring benefits to the building industry and its suppliers.

Restrictive policy measures on already-developed real estate help 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.

The FIRB's responsibilities are to:

- examine proposed investments that are subject to the Foreign Acquisitions and Takeovers Act 1975 (Cth) and supporting legislation, and to make recommendations to the Treasurer and other Treasury portfolio ministers on the national interest implications of these proposals
- provide advice on the operation of the foreign investment framework and related matters
- provide guidance to foreign persons and their representatives or agents on the operation of the foreign investment framework
- monitor and ensure compliance with the framework
- foster awareness and understanding, both in Australia and abroad, of Australia's policy on foreign investment.

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.

Figure 4.14 shows the net capital inflow as a percentage of GDP. Equity finance has been outstripped by debt finance in recent years.

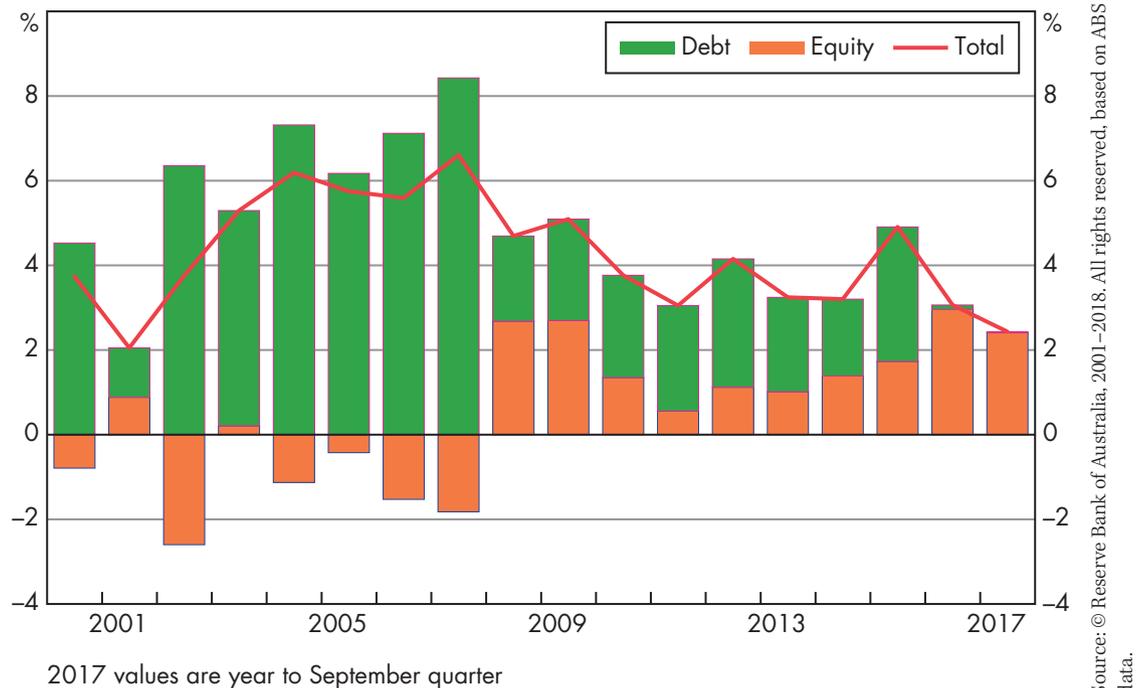


FIGURE 4.14 Australia's net capital inflows 2001–17, as a percentage of nominal GDP

Figure 4.15 shows the Australian industries attracting foreign direct investment. Clearly, mining, manufacturing, real estate, the financial and insurance industry, and wholesale and retail trade are the main beneficiaries of foreign direct investment.

Source: Based on Foreign Investment Statistics, Department of Foreign Affairs and Trade. CC BY 3.0 Licence. (<https://creativecommons.org/licenses/by/3.0/au/>)

Foreign direct investment in Australia – levels of investment by selected industry (2016)

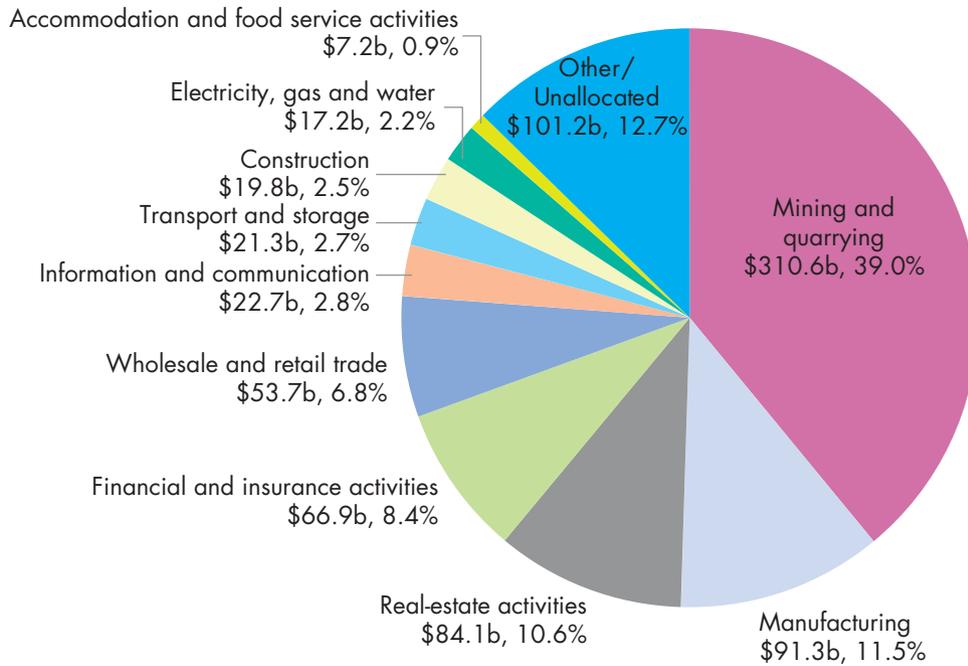


FIGURE 4.15 Which Australian industries attract foreign direct investment?

The main sources of foreign direct investment are the USA, the UK, Belgium, Japan, Hong Kong, Singapore and China.

4.4.1 Costs and benefits of foreign investment

Economists have identified a number of advantages and disadvantages of foreign investment, as outlined in Figure 4.16.

FIGURE 4.16 Costs and benefits of foreign investment

Benefits of foreign investment	Costs of foreign investment
<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • It leads to loss of ownership and control of industry and resources. • Increasing external debt results in high debt servicing, which increases the income component of the current account. • Portfolio foreign investment tends to be short-term and speculative.

The UK and the USA have traditionally been the main sources of direct foreign investment in Australia. In recent years, they have been joined by Japan, China, Hong Kong and New Zealand. Much of Japanese direct investment has been in real estate, mining and tourism. The construction of tourist facilities to an international standard has led to the creation of employment opportunities for many Australians.

Although much of the direct investment from the USA has focused on the manufacturing sector, there has been significant interest in recent years in mining, tourism, agriculture and real estate. Investors from the UK have concentrated mainly on the mining and manufacturing sectors. China has been interested in investing in the resource sector of the economy, given its demand for coal and iron ore in particular.

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.

QUESTIONS

- 1 What do you think the role of foreign investment in Australia should be?
- 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?
- 5 Conduct a debate on the question: 'Should foreign investment be allowed in Australia?'
- 6 Examine Australia's current performance in the external sector. Do you agree with the policies that the government is implementing?

ECONOMICS CHALLENGE



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 last 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 the implications if this investment had not been available.

4.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 A deficit in the current account usually indicates a favourable balance of trade.
- 2 Foreign investment in Australia has encouraged the development of import-replacing industries.
- 3 The balance of trade is the same as the balance on current account.
- 4 Foreign investment inflows can help a country overcome a balance on current account deficit.
- 5 Foreign debt is the debt owed by a nation as a whole.
- 6 Direct investment strengthens the possibility of improved technology in a country.
- 7 Portfolio investment is the purchase of shares and debentures in Australian countries.
- 8 Australia usually has a surplus in the current account.
- 9 The purchase of a new Boeing Dreamliner aircraft by Qantas would appear in the imports account.
- 10 Australia's capital and financial account is usually in surplus.

4.2 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 taken by governments to influence activity in the current account or the capital account
- 3 The purchase of less than 10 per cent of a company's 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

4.3 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
 - B exports and imports of services
 - C exports of wool
 - D 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?
 - A interest and dividends paid to overseas companies and individuals
 - B purchases of Australian firms by Chinese firms
 - C investment by overseas firms in Australian mining businesses
 - D Australian Government borrowings from abroad
- 3 Capital inflow will be increased by:
 - A a rise in the exchange rate.
 - B a rise in domestic interest rates.
 - C a fall in the current account deficit.
 - D all of the above.
- 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.
- 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

4.4 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 Give 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 Identify three reasons for Australia's persistent current account deficit in the balance of payments.
- 6 Outline the effects of decreased foreign investment on the balance of payments.

4.5 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 accounts.
 - 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

4.6 Inquiries

- 1 Imagine you are an economist faced with the problem of resolving Australia's prolonged balance on current account deficit. Outline measures you could use to resolve the situation and reasons why you would use these measures. Why should it be necessary to deal with a long-run fundamental disequilibrium in the balance on current account?
- 2 'The foreign debt is like an anchor weighing Australia down.' Do you think this is an accurate description of the foreign debt? Why, or why not? Imagine you were the Treasurer of Australia. What policies would you implement to improve Australia's foreign debt problem? What would be the effect of these policies?
- 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

Review of Chapter 4

- 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 How would you rate the seriousness of Australia's present current account deficit? How does the current account deficit impact on the economy? What policy options are open to the Federal Government to improve the current account deficit? Recommend a course of action to the Federal Treasurer and evaluate the impact these policies would have on the economy.
- 5 Is Australia's level of external or foreign debt too high? Given that the majority of debt is private sector debt, should the Federal Government impose tighter restrictions on foreign ownership and control of Australian enterprises? If it did so, what would be the effects on the Australian economy?

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 4
answers



5

Trade policy

This chapter examines the issues of free trade and protection, free trade agreements (FTAs) 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 methods of protection used still justifiable in today's economy?
- Does Australia benefit from bilateral and multilateral trading agreements?
- Should Australia aim for greater trade liberalisation, or continue with existing trade policies?

To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:

- free trade
- protection and methods of protection
- arguments for and against protection
- Australia's trade agreements
- benefits of trade agreements.

5.1 Free trade, investment and protection

CONCEPTS



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 market place; 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

Globalisation: the growing integration of national economies to form a single interdependent global economy

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

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 models 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**.

Globalisation has resulted in a major push from nations to reduce **protection**, resulting in the benefits of free trade being available to more countries and people throughout the world.

In essence, free trade is said to exist when trade between nations is allowed to proceed under 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.

The comparative advantage a nation holds may shift over time. Australia's comparative advantage for many years lay in the production of primary products. In more recent

times, with the advent of computer-driven technology, Australia has been able to develop a comparative advantage in the rapidly emerging knowledge economy. Using the latest electronic technology, Australia has also developed a comparative advantage in areas such as education, the development of computer games and software, forensic science and health research.

What gives a country the comparative advantage? The source of the 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. The 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

The emergence of the knowledge economy has shifted Australia's comparative advantage.

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

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.

Refer back to Section 2.4.7 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.

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 is the general term used to describe any government action that provides domestic producers with an artificial advantage over their 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.

Australia has always been classified as a protectionist nation. 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**. Numerous subsidies, bounties and concessions are offered to industries that compete in world markets. Figure 5.1 lists 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.

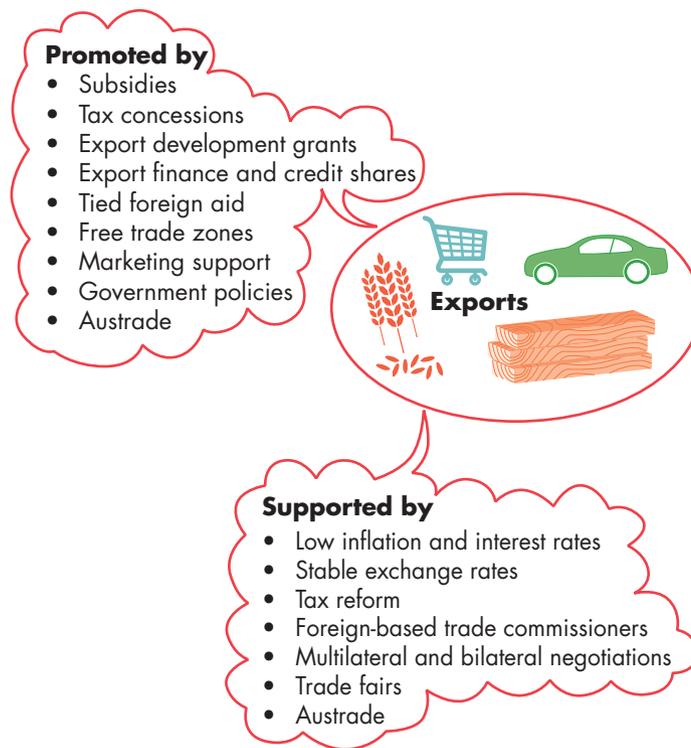


FIGURE 5.1 Export promotion methods

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.

QUESTIONS

- 1 List three benefits of free trade.
- 2 Explain the difference between natural resources and created resources. Give examples of each.
- 3 Describe what gives a firm a competitive advantage.
- 4 Define the term 'protection'.
- 5 Identify 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 licence: a procedure used to limit the number of importers

Import quota: the practice of specifying how much of a commodity may be imported into a country

Non-tariff barrier: a barrier 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

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 specific to a country, thereby acting 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, it has been the policy of successive Australian governments to reduce the rates of tariffs levied on imports. This is 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 5.2 shows the diminished rate of tariffs over a ten-year period.

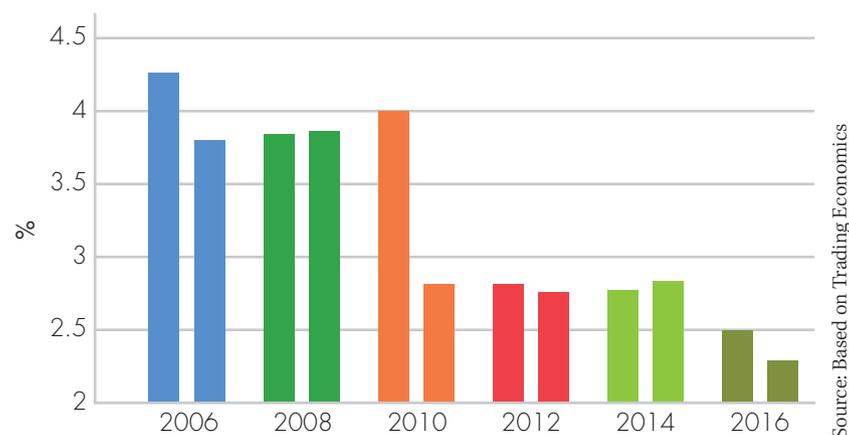


FIGURE 5.2 Australia: simple mean applied tariff (the unweighted average of effectively applied rates for all products subject to tariffs calculated for all traded goods)

ECONOMICS DATA



Trading Economics

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.

5.2.2 Import quotas

Import quotas 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 5.3 shows the effects of a quota. Assume that the product is imported blue vein cheese. Figure 5.3a 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 5.3b 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 .

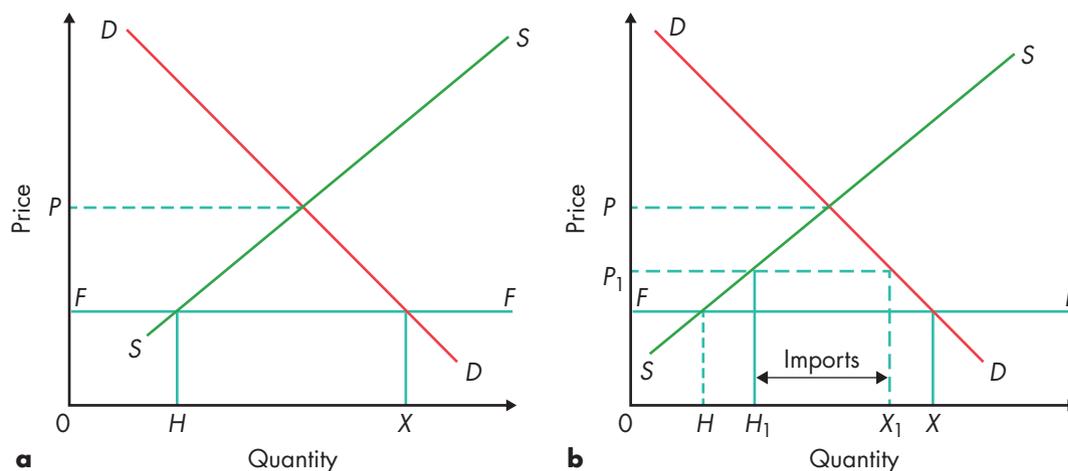


FIGURE 5.3 The effects of a quota

5.2.3 Import licensing

Import licensing is a quantitative protective measure similar to quotas. While there is no general licence required for importing into Australia, Australian customs will need to clear your goods on import. The essential difference between a quota and an import licence is that, with 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 which the number of importers and the volume of imports can be controlled. The allocation of import licences can be a source of revenue for a government if a substantial fee is charged for them, constituting an additional cost that is passed on, again, to consumers of the imported commodity. Import licensing requires bureaucratic intervention. In some countries of the world, it is a known source of bribery and corruption between businesspeople 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 not often used by Australian governments today, but exporters sometimes receive assistance to push into export markets by government marketing campaigns.

ECONOMICS IN ACTION



Draw a series of supply and demand graphs to illustrate how a subsidy could act as an effective form of protection. 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.

These days, an embargo is more likely to be in the form of a sanction directed at certain countries, as part of Australia's foreign policy. For example, trade sanctions were implemented against North Korea in protest at their development of nuclear capabilities.

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.

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. 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. Recently, the

Australian banana industry has attacked proposals to permit imported bananas from Asian countries on the grounds that diseases affecting banana trees might enter Australia. 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 the product.

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.

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, 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. The Japanese Government diffused the issue by the imposition of 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.

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 in order 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 still doing this.



The effects of a tariff

- 1 Figure 5.4 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 $0a$. 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 5.4 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.

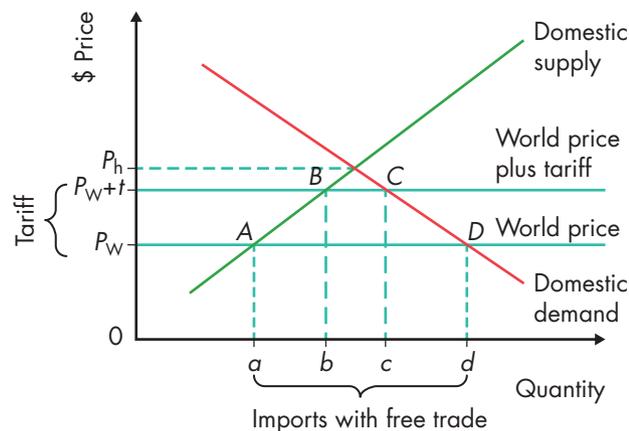


FIGURE 5.4 The effects of an import tariff

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 reasonably obvious, but there is a range of regulatory and procedural practices of governments that are not as obvious and yet are effective means of protection. These non-tariff methods of protection include health regulations, product standards, approval procedures, customs inspections and government procurement policies.

QUESTIONS

- 1 List three examples of non-tariff barriers and explain how each works.
- 2 Define the following terms:
 - a tariff
 - b quota
 - c embargo
 - d foreign exchange control
 - e government procurement policy
 - f subsidy.
- 3 Explain how a tariff works to protect a domestic industry.
- 4 How can bureaucratic controls and technical specifications be used to protect a domestic industry?
- 5 Explain three effects of tariffs.
- 6 Identify 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

Nominal tariff rate: a tariff applied to imported commodities as quoted in tariff schedules

Effective rate of protection: the actual rate of protection given to the import-competing industries

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 a concept of the **effective rate of protection** (often referred to as the '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 AND ICT



How are Australian industries protected?

Compile a list of ten products you use that are produced in Australia. Using the Internet, 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).

- 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 5.5a 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 5.5b is the basis for the calculation.)
- Case 3** In this case, 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 5.5c is the basis for the calculation.)



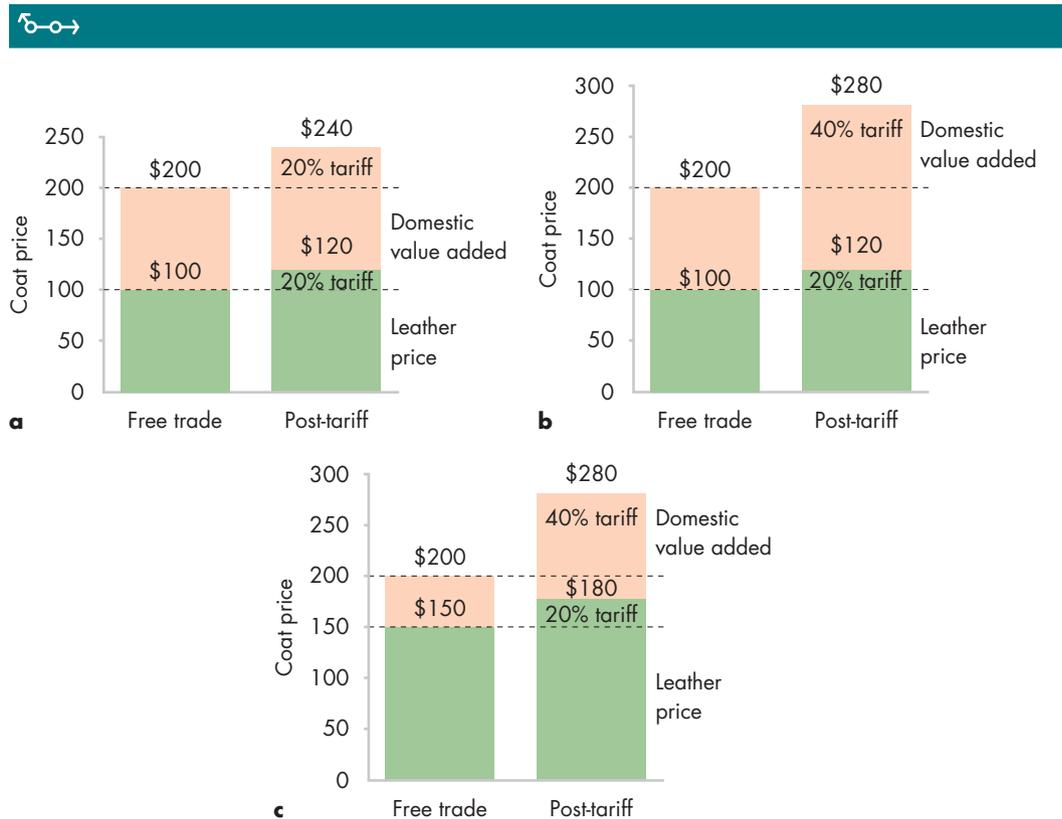


FIGURE 5.5 Effective rate of protection

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.

QUESTION

Why can the effective rate of protection differ from the nominal rate of protection?

5.4 Costs and benefits of protection

CONCEPTS

Bilateral trade agreement: a trade agreement negotiated between two countries

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 over and over again to justify protection. Let us critically examine some of these arguments.

5.4.1 Benefits of protection

Infant industry

This argument supports the proposal that industries, in their early years of establishment, may experience teething problems and additional costs, and must therefore be protected. Also, **infant industries**, as they develop, 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. 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. In any case, 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 infants never develop to become self-supporting adult industries. Protected from international competition, there is little incentive to strive for improved efficiency and innovation. Entrepreneurial energies are directed at lobbying governments for more protection, rather than searching for new markets and improved efficiencies.

Self-sufficiency, national security and defence

These arguments were particularly popular immediately after the Second World War. The experiences of war highlighted Australia’s relative isolation and vulnerability. Supporters of these arguments believe that Australian industry should be diversified enough to ensure that we are not overdependent upon other nations. A nation ought to be **self-sufficient** in case of war. These arguments were used to justify government assistance to oil exploration companies in the 1960s. However, when oil was discovered, it was put to use rather than left in storage for times of emergency, as the defence argument would suggest.

Self-sufficiency raises the concept of a closed economy, thus forgoing the benefits of free trade and exposure to new ideas and technologies. It may be that security is better ensured by developing strong links with powerful nations through international trade and investment.

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. 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 these industries. If protection were to be eliminated, how could it provide employment for workers in industries that would not survive the competition of imports? The jobs argument takes the short-term viewpoint. If jobs are protected by **import substitution**, they become supported by inefficient industries. In the long run, 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 wages 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. These industries pay high wages.

Buy Australian-made

In recent years, businesspeople and government departments have promoted the slogans 'Buy Australian-made' and 'Advance Australia' in an effort to persuade Australians to buy locally produced commodities. While this sort of promotion may have patriotic appeal, it has little economic justification. Unfortunately, such slogan campaigns tend to gloss over the hard cold fact that buying Australian-made products may not always be best for the Australian economy. The proof lies in the principle of comparative advantage.

Dumping

Occasionally you will hear of industries seeking protection from **dumping** by foreign producers. Dumping occurs when a producer sells a commodity in a foreign market at a price that is substantially less than it 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 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.

There is not much that can be done to eradicate international dumping. The conventional protective devices are continuous in their action, but dumping is sporadic and unpredictable. Furthermore, tariffs and quotas do not deter foreign producers from dumping.

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, this 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

This 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

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 by the principles of absolute and comparative advantage in Chapter 1. The concept of opportunity cost should dominate any discussion of protection: '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. For example, because our domestic motor vehicle industry is 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, are paying a tax of \$8000 to support our domestic industry.

At the same time, consumers who choose 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. In effect, these consumers are also paying a tax of \$3000. 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. A further 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 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 erode further 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.

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, the USA and other countries against imports. Protection is a 'beggar-thy-neighbour' policy: a win-lose strategy. The imposition of tariffs and non-tariff barriers

invites retaliation by international competitors. International relations become strained. Trade becomes further restricted and the benefits of free trade are lost by all. Protection is a lose–lose outcome.

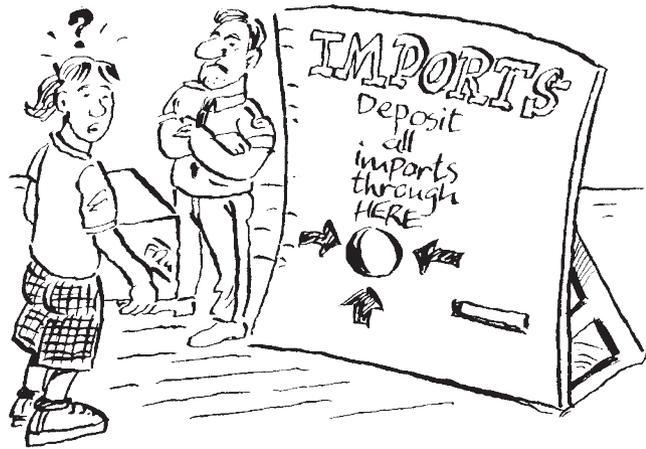


FIGURE 5.6 Protection



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 years, 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-wing conservative parties – economists and other right-wing conservative groups within Australia raising the need for protection to retain Australian jobs etc.

Write a letter to the editor of a newspaper, or an online blog, 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 NelsonNet.

5.5 Trade policy

KEY IDEA

A country must develop a trade policy to effectively manage its trade relationships with other nations to maximise its advantages.

Australia has a very open market with minimal restrictions on imports of goods and services. Figure 5.2 clearly showed that the level of tariffs has fallen considerably over a ten-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 and 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.

All governments must develop a trade policy, because economies are dependent on a stable system for international payments and trade, and a larger amount of trade for economic 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 years. 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.

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 also developed improved relations through other international forums, such as APEC.

Multilateral trade agreements are not Australia's only trade priority. Through bilateral initiatives, the government deepens Australia's trade and economic engagement with important markets. Australia has had a trade agreement with New Zealand for many years, and it recently negotiated FTAs with the USA, Thailand, Singapore, China, and many other countries.

ECONOMICS AND ICT



DFAT issues an annual report: *Composition of Trade Australia*. Look at the current year's report and answer the following questions.

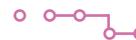
- 1 What are current government trade priorities?
- 2 How has Australia performed in world trade in the past 12 months?
- 3 What have been the major developments in multilateral negotiations in the past 12 months?
- 4 What have been the major developments in bilateral agreements in the past 12 months?
- 5 What has been Australia's recent position on tariff reduction?



DFAT – Composition of trade

5.6 Trade agreements

CONCEPTS



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

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 deflection: the re-routing of exports from one member country to another

member of the free trade area to take advantage of the differences in tariffs

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 market place

Australia participates in many trade agreements, which are either bilateral agreements or multilateral agreements. Australia's **trade policy** aims to result in an increase in economic activity, job creation, and a fair deal for Australia in the international market place. 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 regional and 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.

5.6.1 Benefits of free trade

There are many benefits of free trade – the reason 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, introducing new technologies, and 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 market, and assist to promote 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 ten FTAs with individual countries or small groups of countries. These are Korea, Japan, China, Chile, Malaysia, New Zealand, Singapore, Thailand, the USA and the Association of Southeast Asian Nations (ASEAN).

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 be negotiated?



Department of Foreign
Affairs and Trade

The government's FTAs policy aims primarily at maximising the economic benefits flowing to Australia from the negotiation of these agreements. An agreement 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, reaping 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.

Australia–New Zealand Closer Economic Relations Trade Agreement

In the early 1960s, when the UK was contemplating joining the European Common Market, Australia and New Zealand felt somewhat exposed and deserted. In 1961, they set up a Joint Consultative Committee on Trade to investigate ways and means of developing trans-Tasman trade. During 1963, New Zealand formally proposed a free trade area in forest products. However, Australia insisted on a wider coverage to meet General Agreement on Tariffs and Trade (GATT) requirements and to minimise possible opposition from other countries. An Australia–New Zealand FTA was signed in August 1965, came into force on 1 January 1966 for an initial period of ten years, and was extended for a further ten years from 1976.

By the late 1970s, it was apparent that the FTA was only partly successful in achieving the goals set in the original 1965 agreement. It had not led to the degree of industry rationalisation envisaged, and no significant progress had been made towards the establishment of a free trade area.

As a result, the governments of Australia and New Zealand entered negotiations to formulate a new agreement with much more extensive provisions. The Australia New Zealand Closer Economic Relations Trade Agreement (ANZCERTA, known as CER) came into effect on 1 January 1983 and was ratified by the newly elected Hawke Government in March 1983.

The objectives of CER, as stated in Article 1 of the agreement, are:

- to strengthen the broader relationship between Australia and New Zealand
- to develop closer economic relations between the member states through a mutually beneficial expansion of free trade between Australia and New Zealand
- to eliminate barriers to trade between Australia and New Zealand in a gradual and progressive manner under an agreed timetable and with a minimum of disruption
- to develop trade between Australia and New Zealand under conditions of fair competition.

As a result of CER, the economies of Australia and New Zealand have become more integrated. Australia and New Zealand have broadly similar resource endowments. Both countries depend heavily on exporting primary products to the rest of the world. In contrast, most of the merchandise trade between Australia and New Zealand consists of manufactured goods. Furthermore, much of this trade is intra-industry trade; that is, two-way trade in products of the same industry. Regular bilateral reviews of CER have resulted in the elimination of tariffs on almost all trade in goods. Barriers remain for trade in services and capital flows. CER has also led to the removal of non-tariff barriers by the harmonisation of procedures and regulations governing standards, labelling and customs.

Rules of origin exist in CER, as they do with other free trade area agreements, to prevent **trade deflection**. Australia and New Zealand have different tariffs on their imports from the rest of the world. Rules require administration and enforcement, and so add a bureaucratic complexity to trade between the two countries. Rules of origin become less relevant when the tariffs on the rest-of-the-world imports are reduced or made more uniform. Australia and New Zealand have unilaterally reduced the barriers to trade in manufactured products from the rest of the world. Both countries once heavily protected their manufacturing industries. This unilateral reduction in manufacturing protection has reduced trade deflection and enabled the simplification of rules of origin.

CER, in combination with the reduction in tariffs on imports from the rest of the world and the high-level trans-Tasman intra-industry trade, offers the opportunity for considerable benefits for the two economies. Under these circumstances, trade creation can be expected to outstrip trade diversion. The benefits will flow from the increasing competition, economies of scale and increasing specialisation within industries of the manufacturing sector.

New Zealand is now Australia's seventh-largest two-way trading partner, with trade totalling more than A\$150 billion in 2016. In addition, there was more than A\$150 billion in 2016 in foreign investment between the two nations. The investment relationship is also strong. Australia is now New Zealand's largest source of foreign investment, with more than A\$66 billion invested in New Zealand.

ECONOMICS CHALLENGE



Select one bilateral trade agreement of which Australia is a member. Using Internet sources, such as the ones you will find on NelsonNet, 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.



Department of Foreign
Affairs and Trade

Department of Home
Affairs – Free trade
agreements

Department of Industry,
Innovation and Science

5.6.3 Multilateral trade agreements

Multilateral trade agreements involve many countries. Examples of multilateral trade agreements to which Australia is a party include APEC and the Trans-Pacific Partnership (TPP). 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 European Union and the TPP, 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 on goods are relatively low across most product categories in trading countries, non-tariff barriers for both goods and services 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. For example, the TPP allowed accumulation of rules of origin, making it easier for businesses to establish supply chains with relaxed country of origin restrictions.

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. Australia has benefited from APEC's dynamism. Significant progress has been made by Australia and the region towards achieving the goal of free and open trade and investment in the Asia-Pacific by 2020. APEC's 21 member economies account for more than half of global GDP and are home to more than 2.7 billion people. APEC partners account for more than two-thirds of Australia's total trade in goods and services.



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

ECONOMICS CHALLENGE



Select one multilateral trade agreement of which Australia is a member. Using Internet sources, such as the ones you will find on NelsonNet, 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.

QUESTIONS

- 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 Argue 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 the number of FTAs.

5.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 The cost of protection falls only on those consumers who choose to buy an imported product.
- 2 Subsidies tend to reduce the price of a locally produced commodity.
- 3 Protection may be justified against dumping by foreign producers in the domestic market.
- 4 It can be argued that protection has regressive effects that redistribute income from low-income consumers to high-income consumers.
- 5 Tariffs are a tax on imports.
- 6 Trade liberalisation will not lead to a reduction of tariffs.
- 7 Subsidies are theoretically more justifiable than tariffs.
- 8 All protection measures increase the price of imported goods and reduce the quantity consumed.
- 9 A free trade policy benefits Australians more than a protectionist policy.
- 10 A multilateral trade agreement is an agreement between two countries.

5.2 Terminology

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

- | | | |
|--------------------------|---------------------------|-------------------------------|
| A Trade diversion | D Quota | G Free trade agreement |
| B Free trade | E Export promotion | H Protection |
| C Trade creation | F Subsidy | I Non-tariff barrier |

- 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 practice of specifying 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 ceases in a higher-cost country and is relocated to a lower-cost country; 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 goods are no longer imported from a lower-cost country, but are traded from a higher-cost country within the trading agreement

5.3 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 self-sufficiency, national defence
 - 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 all of the above
- 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 all of the above.
- 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.

Review of Chapter 5

- 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.
- 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

5.4 Short response questions

- 1** Explain three reasons, and give examples, of 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** Identify 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, does the world become one big single market?'

5.5 Activities

- 1 Austrade and the Department of Foreign Affairs and Trade pursue a policy of increasing Australia's exports. 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.
- 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.
 - d The Trans-Pacific Partnership will, given time, be the Pacific's answer to the European Union.

5.6 Inquiries

- 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?

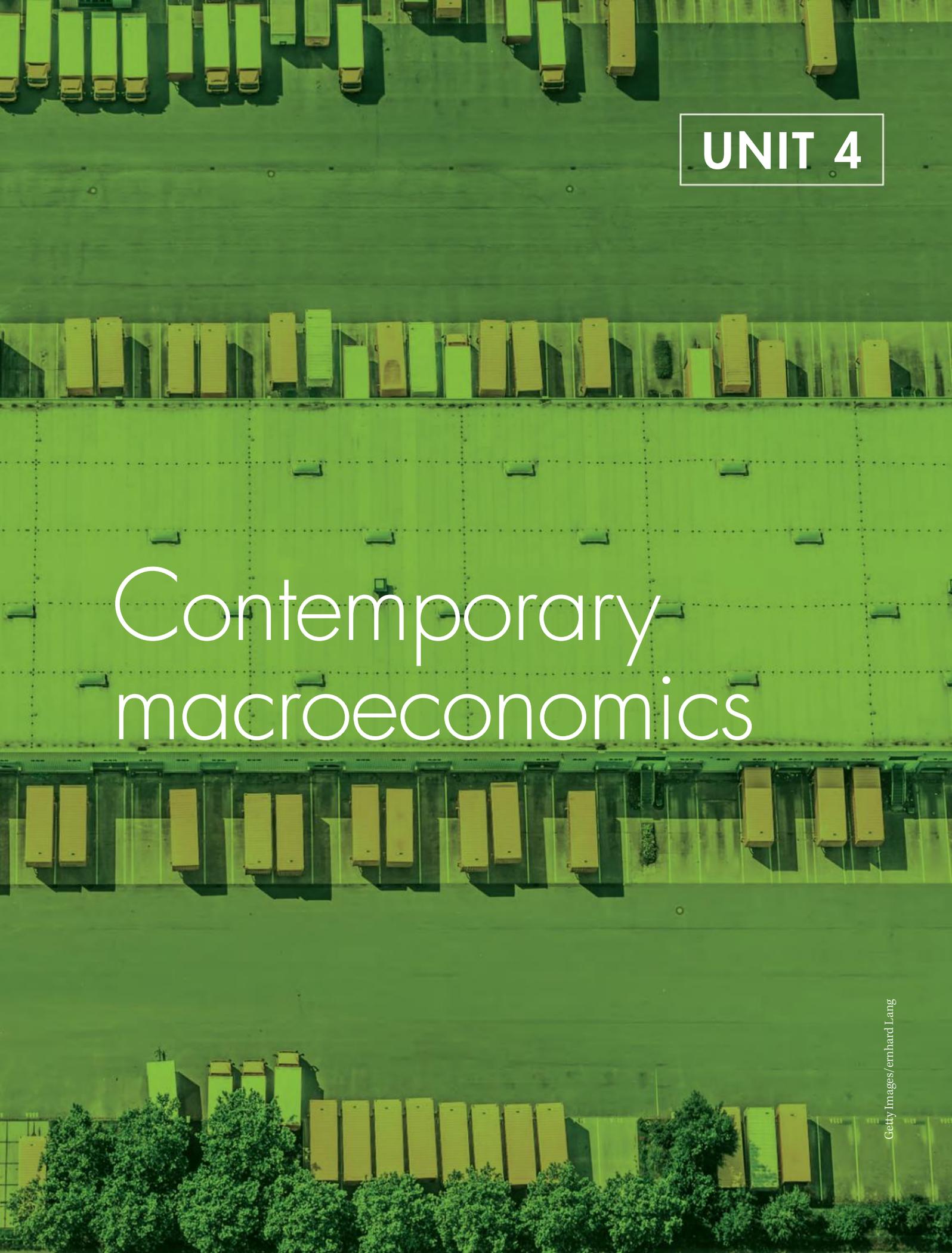
Review of Chapter 5

- 3 Is the pursuit of a free trade policy in the best interests of Australian consumers?
- 4 Evaluate the benefits and costs to the global economy if countries adopted a bilateral trade policy as opposed to a multilateral trade policy.
- 5 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?
- 6 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.
- 7 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?

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 5
answers

An aerial photograph of a large parking lot or truck yard. The lot is filled with numerous yellow semi-trucks parked in neat rows. In the foreground, a large green semi-trailer is visible, partially obscuring the view of the trucks behind it. The overall scene is dominated by the colors of the trucks and the green trailer.

UNIT 4

Contemporary macroeconomics



Cefty Images/John W. Banagan

6

Aggregate expenditure model

This chapter examines aggregate demand and supply to model the level of output in the economy, to better understand how government can develop policies to sustain 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 the short- and long-run aggregate demand and supply?
 - How should one apply the aggregate demand/supply model to determine the overall price level and equilibrium level of real output in an economy?
 - What was John Maynard Keynes' contribution to our understanding and management of the economy?
 - What is the current government's approach to managing the economy and to related social costs? How does this approach differ from that of the opposition?
 - How do global economic forces impact on our management of macroeconomic issues?
- To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:
- the circular flow of income model and the components of aggregate demand
 - the concept of the multiplier effect and the marginal propensity to consume
 - the distinction between nominal and real gross domestic production
 - Keynesian theory and the aggregate demand/supply model
 - global effects on macroeconomic issues.

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: 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, 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 such market failures, we noted that there was a case for governments to intervene and manage the market system. Unfortunately, there is no agreement – and therefore much debate among economists – as to how far governments ought to go in managing the economy, or what constitutes the best forms of intervention.

This chapter examines aggregate demand and supply to model the level of output in the economy, 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 government or public sector
- the financial sector
- the foreign or overseas 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 1.1 in Section 1.1. 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** 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 – households and businesses – 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 have to equal investment; that is, $S = I$.

To achieve equilibrium or balance within just the government sector, income from taxes would have to equal government expenditure; that is, $T = G$. If taxes are greater than expenditure, a surplus will result. If expenditure is greater than taxes, the result will be a deficit. If such deficits continues for a long time, the government will have to borrow money to make up the deficit.

With the foreign 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, the result will be a deficit. If this imbalance continues for too long, we will start to experience balance of trade and payments problems.

Of course, all of 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.

ECONOMICS CHALLENGE



Application of the circular flow of income model: the paradox of thrift

Over the past 40 years or so, concern has arisen at various times over the size of our nation's foreign debt. Australians were urged to save more to remedy the problem. In times of high unemployment, individuals are cautious and may try to save rather than spend more. 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 were 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 cartoons below (Figure 6.1). In each case, consider the characters in the pictures, 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 your class.

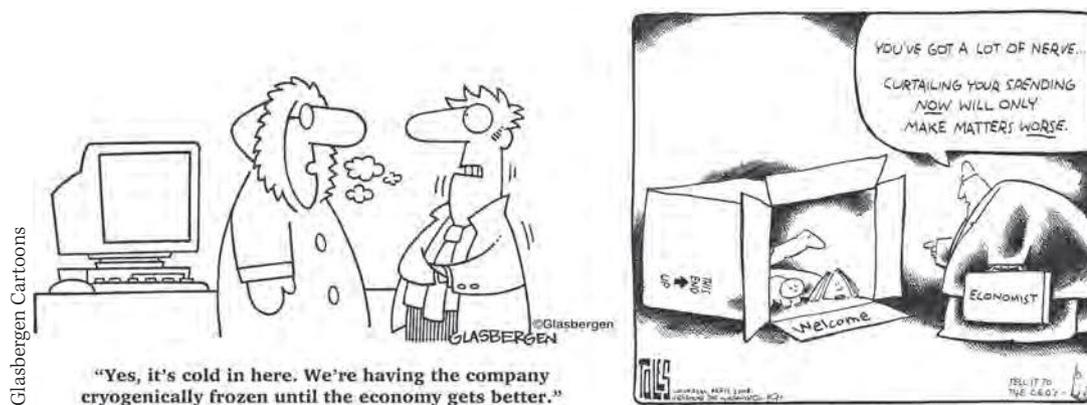


FIGURE 6.1 The paradox of thrift

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 business 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.

However, to highlight the value of the circular flow model, let us consider a simple example. Suppose there is large-scale unemployment because the business 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

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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 business 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 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. Despite the limitations of oversimplification, the circular flow model serves as an explanation of the working of the Australian economy and provides a useful starting point for our study of economic management.

QUESTIONS

- 1 Explain the meaning of the following terms:
 - a circular flow of income model
 - b leakages
 - c injections
- 2 What is meant by 'equilibrium' in the economy?
- 3 What conditions are 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 foreign 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 an 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. 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 its 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. These accounts show that there are three different methods of measuring total production (or GDP) in the economy.

- 1 **The production approach** calculates the total value of final goods and services produced in the economy during a particular period. Care must be taken with this method to count only ‘final’ production or the ‘value added’ at each stage of production to arrive at the GDP figure. Total values at each stage of production cannot just be added together, or flour, for example, which is an input to bread production, would be counted twice. This figure is represented by ‘*O*’ or output in our equation for the circular flow.
- 2 **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 method of 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.
- 3 **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.

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 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 AND ICT



As noted above, 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 give the government excellent information to use in comparing the economy over time, in comparisons with other countries, and 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: Income, Expenditure and Product*, catalogue 5206. Then complete the activity on the next page.



Australian Bureau of
Statistics



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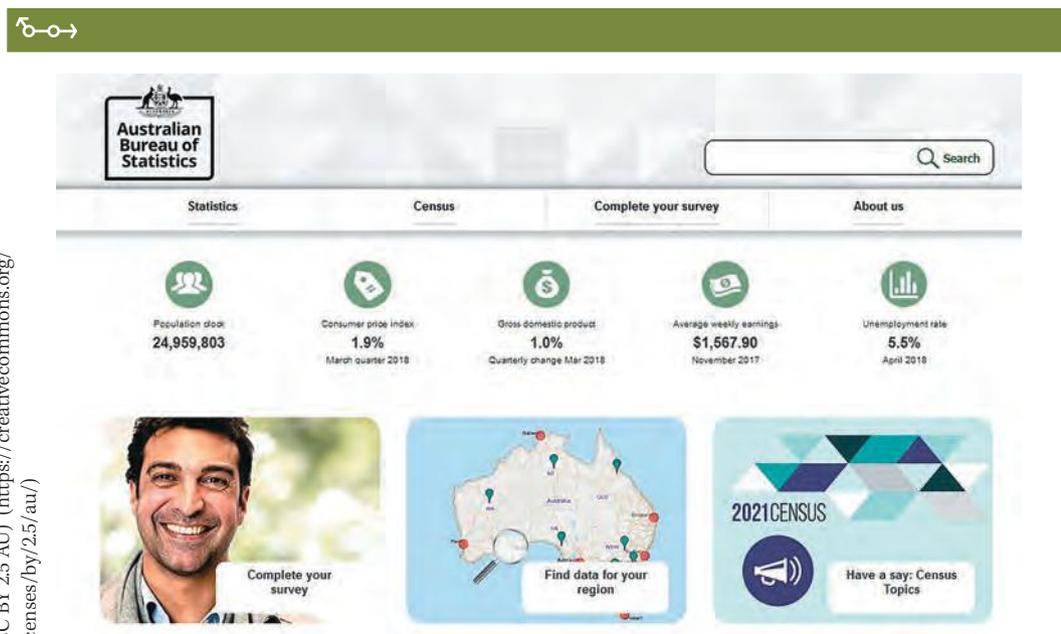


FIGURE 6.2 Australian Bureau of Statistics homepage

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. Then examine the ABS 'analysis' (located under the 'summary' tab) 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. 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 chain volume measures', read the summary comments and discuss:
 - 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 at current prices', read the summary comments and discuss:
 - 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 chain volume measures', read the summary comments and discuss:
 - 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 final demand chain volume measures', read the summary comments and discuss:
- 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.

6.2.1 The challenges of economic growth

In any study of economic growth, it is important to recognise that while the goal of nations is to grow their economy, it should always be seen as a means to an end, and not an end in itself. Accordingly, a word of caution to 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 well-being, social cohesion and levels of happiness within a populace. It is only by dissecting and analysing the GDP results in more 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 a nation's 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 windfarms 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.

- For example, consider 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.
- Likewise, consider the way income and wealth is distributed within an economy. A rising GDP resulting from a mining boom may well lead to higher incomes for those in the mining sector, but does the aged-care pension necessarily change?
- A rise in economic growth can lead to greater employment, but it 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 now 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 (for example, a new school due to an election promise) or consumption increases due to demographic changes

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

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 and to provide stability, economic growth, and 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, a small matter of 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 trying 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

It is 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 new and opposing ideas developed. These provide governments with policies in both the macro- and microeconomic areas to deal with these shocks, and to provide stability, economic growth and 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 similarities to and differences from the law of demand you learnt about with 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 6.3, 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 .

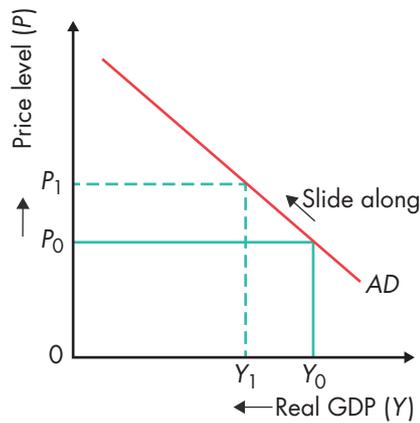


FIGURE 6.3 Aggregate demand: an increase in price

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 6.4.

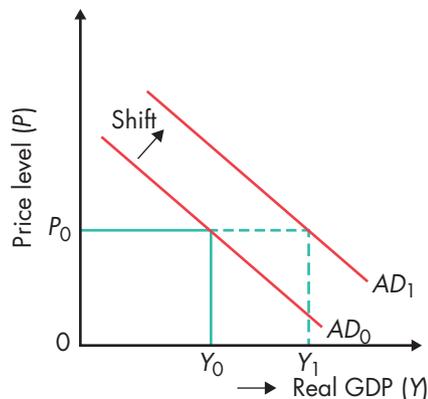


FIGURE 6.4 An increase in aggregate demand

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) 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.

QUESTIONS

- 1 Define ‘aggregate demand’.
- 2 What are the aggregate expenditure components of aggregate demand?
- 3 Give two reasons why, if the general price level rises, the planned level of aggregate expenditure is expected to fall.
- 4 List 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 item. 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. Economists find it valuable to monitor the volatility of the individual components of aggregate demand so that appropriate economic policies can be enacted to respond to downturns in economic growth.



Australian Bureau of
StatisticsReserve Bank of
Australia

Australian Treasury



Using the table in Figure 6.5 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 Reserve Bank of Australia, and the Australian Government's Department of Treasury. Once you have completed your time study, discuss with your class 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 enact to improve demand in a given section of the economy.

FIGURE 6.5 Chain volumes for 2017

Aggregate demand components	\$ billions	% of total
Household consumption	957	57
Government demand	390	23
Business investment	219	13
Dwelling construction	97	6
Inventories	5	0
Exports	370	22
Imports	(351)	(21)
GDP	1685	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 particularly of interest to governments, as their spending and taxing decisions have a significant impact via the **multiplier process** on the level of national income.

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 (for example, on new schools, hospitals or infrastructure) due to an election promise, or consumption increases due to demographic changes (for example, an increase in national migration). If autonomous expenditure increases, national income will also increase. Observe our hypothetical economy of a simple three-sector economy where a consumption function diagram (Figure 6.6), 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 right-hand top corner. This line indicates all of those points where output (or supply) would

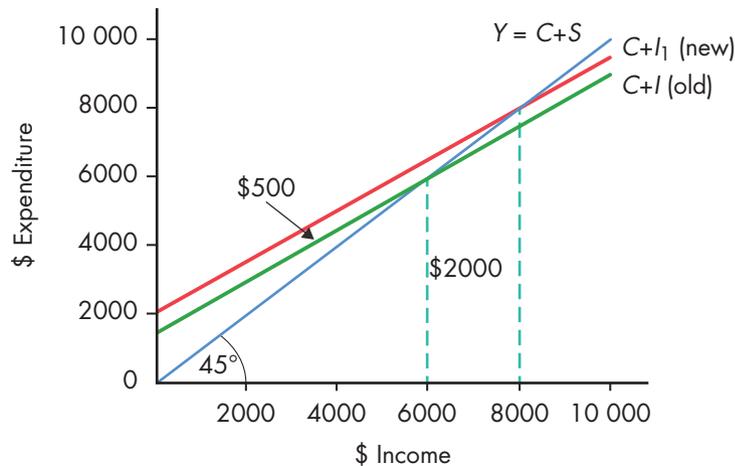


FIGURE 6.6 The multiplier impact

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.

In Figure 6.6 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 \$2000, the difference of moving from the income point of \$6000 to \$8000. 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 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 6.6 and explain our graph numerically.

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:

$$\text{Multiplier } (k) = \frac{1}{1 - \text{MPC}}$$

Applying this, we can find what our increase in income will be:

$$\text{Increase in } Y = \$500 \times \frac{1}{1 - \text{MPC}} = \$500 \times \frac{1}{0.25} = \$500 \times 4 = \$2000$$

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:

$$k = \frac{1}{1 - \text{MPC} + (\text{MPC} \times \text{MRT}) + \text{MPM}}$$

Obviously, there are a number of assumptions in this calculation about such things as government taxation and expenditure, and it could be expressed in a number of different ways (using MPS instead of $1 - \text{MPC}$ for example). 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 above 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.

QUESTIONS

- 1 What is the multiplier process?
- 2 Why is it 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, the second is a vertical section. The *AS* curve is illustrated in Figure 6.7. 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.

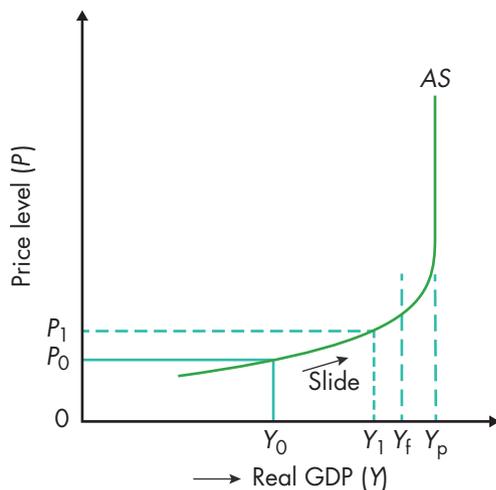


FIGURE 6.7 Aggregate supply

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 6.8a. 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 6.8b. 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 6.8, 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)

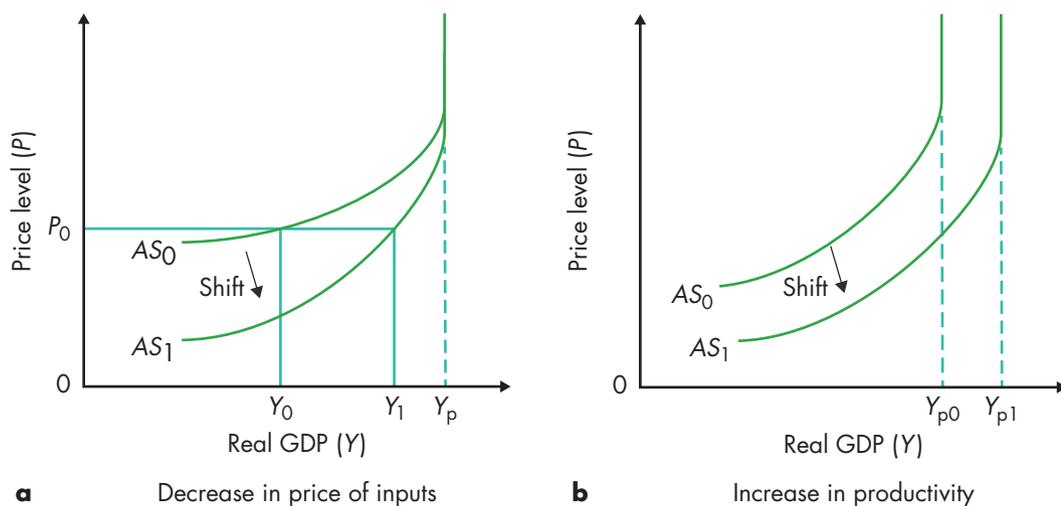


FIGURE 6.8 Increases in aggregate supply

QUESTIONS

- 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?
- 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 6.9. 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.

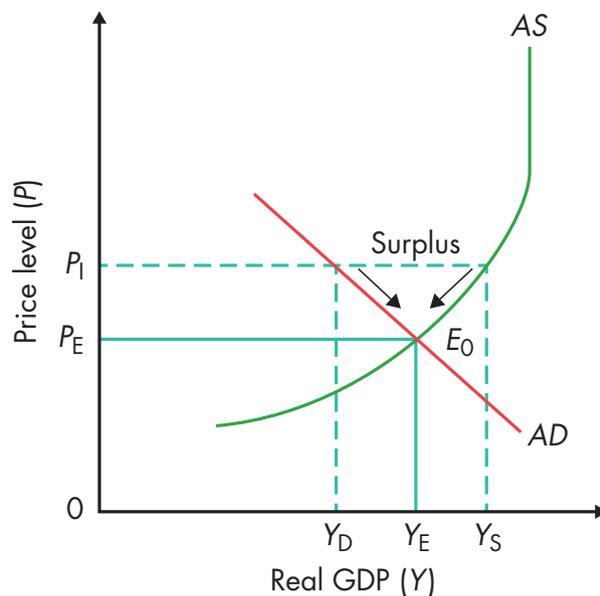


FIGURE 6.9 Macroeconomic equilibrium

Economists have long recognised that just because the economy is in equilibrium, this does not mean it is operating at full employment. Figure 6.10 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).

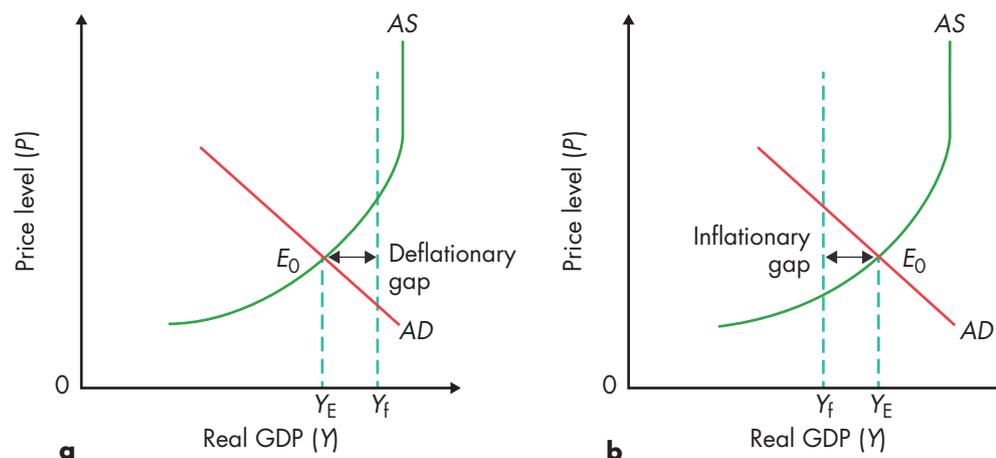


FIGURE 6.10 Equilibrium with (a) a deflationary gap and (b) an inflationary gap

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 demand shocks, which 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, 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.
- Examples of deflationary demand shocks, which 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, 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 supply shocks, which 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, 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.
- Examples of deflationary supply shocks, which 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, 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 the deflationary gap will automatically close. This would happen 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 Chapters 8 and 9; 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 10.

QUESTIONS

- 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 Compare 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 has 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 General Electric, 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 Foreign 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 Reserve Bank of Australia (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 business 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. 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 very 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, 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. 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 overseas 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.

QUESTIONS

- 1
 - a Give examples of how events in overseas markets influence our economy.
 - b Name four ways that 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?

6.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 The laissez-faire market system has some potential failings in solving economic problems.
- 2 The paradox of thrift describes a situation where an attempt to increase savings may result in a decrease of savings.
- 3 If the economy is not operating at the equilibrium level, then market forces will have no impact on pushing production towards the equilibrium level.
- 4 The larger the marginal propensity to consume, the larger the multiplier.
- 5 The full, open-economy multiplier is usually smaller than the three-sector multiplier.
- 6 Nations should pursue economic growth above all other considerations; without it, standards of living will fall.
- 7 The vertical part of the aggregate supply curve reflects the physical limits of national production.
- 8 A decrease in income taxes causes the aggregate demand curve to shift to the left.
- 9 When the economy is expanding and inflationary pressure is building, an appropriate fiscal policy could result in an increased budget surplus.
- 10 Effective microeconomic reforms will shift the aggregate supply curve to the right.

6.2 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 (for example, 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

6.3 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
- 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.

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- 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, it is 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.

6.4 Activities

- 1 **The mythical economy of 'Idealand'**: Use the following figures to determine the equilibrium level of income within 'Idealand'.
- $C = 2000$
 - $I = 460$
 - $S = 400$
 - $X = 200$
 - $G = 200$
 - $M = 220$
 - $T = 240$

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- 2 Figure 6.12 on the next page is a circular flow model showing a closed economy (that is, with no foreign 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.
- 3 **Expenditure on real GDP for 'Mytopia':** The incomplete table in Figure 6.11 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, and your role is to complete the missing table of data using your knowledge of how GDP is calculated.

FIGURE 6.11

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	

- 4 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.

Review of Chapter 6

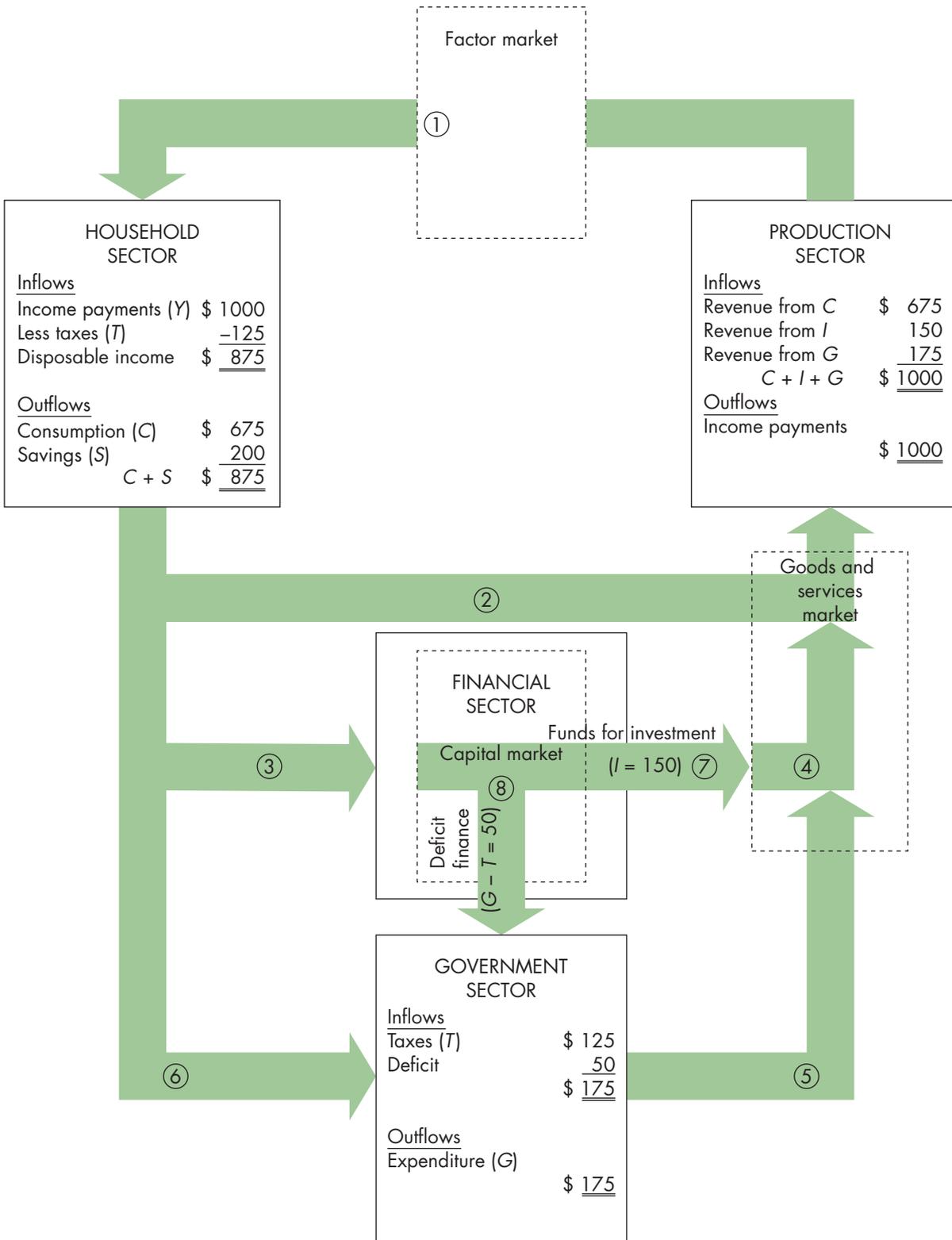


FIGURE 6.12 Circular flow model showing a closed economy

5 Aggregate demand in 'Econostan': Examine the table in Figure 6.13. 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.

FIGURE 6.13

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		

- Complete the savings column and the aggregate demand column.
- 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.
- In the table, when income rises by \$100, by how much does consumption increase? Hence what is the marginal propensity to consume (MPC)?
Hint: $MPC = \text{Change in consumption} / \text{change in income}$.
- What is the value of the marginal propensity to save (MPS)?
Hint: Remember the rule $MPC + MPS = 1$
- At what level of income is there equilibrium in the level of spending and investment in Econostan?

6.5 Inquiries

Complete one or more of the following inquiries using a model of inquiry. Present the outcome of each inquiry as a formal report. You should endeavour to illustrate your report with relevant graphs, photos, statistics and other evidence.

- The Australian Government in 2008–09 took a Keynesian approach in its response to the Global Financial Crisis (GFC), with significant government spending policies focused on stimulating the economy. Conduct a research inquiry into the Australian response using the following as a guide to your investigation.
 - Identify and explain the underlying causes of the GFC and why the government felt it needed to 'stimulate' the economy.

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- Identify, explore and examine the Australian Government's response to the GFC. What policies did they enact?
 - Evaluate the overall success of the government's response. Were there any negative consequences? By what criteria should we judge the success of the government response?
- 2 At the writing of this textbook, Australia and the Netherlands had both experienced over two decades of uninterrupted economic growth. Conduct an inquiry 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, 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 Form a study group with a number of your classmates and examine the following proposition: 'Government policy intervention is not effective in stabilising the economy, but is actually a source of instability due to the political agenda of the party holding government. Instead the "free market" should be left to its own devices to stabilise the economy.' As a group, reach a resolution and report back to your class using your research and case examples to support your position.
 - 5 Using data from the ABS and other online sources, examine 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?
 - 6 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 current newspapers and online sources, investigate and evaluate the current Federal 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.

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 6
answers



Getty Images/Hiroshi Watanabe

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, such as a Global Financial Crisis 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?
- To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:**
- major economic objectives of the Federal Government
 - 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.

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. Of fundamental importance is managing the economy to achieve an agreed set of economic objectives, thereby ensuring a society where the general population experience continued improvement in their 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 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 the 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.

Coupled with this is the historical economic evidence that suggests all market economies are prone to macroeconomic instability. They regularly exhibit unacceptable levels of inflation and unemployment and slow rates of economic growth. As these economies do not appear to be able to correct themselves solely through the market mechanism, it would seem necessary for governments to actively monitor a nation’s economic activity and, where required, manage and intervene in the economy. This would help ensure that the objectives of macroeconomic stability and growth are achieved. Figure 1.1 in Section 1.1 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.

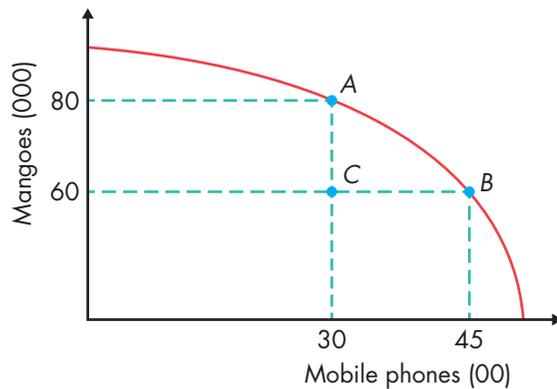


FIGURE 7.1 A production-possibilities curve: mangoes or mobile phones?

7.2 Economic objectives

CONCEPTS

Economic objectives: the most important goals of government economic policy

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

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

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. To evaluate the performance of the Australian economy, we must select a set of economic objectives. These objectives are subject to the influence of the political cycle and may be given different priorities at different times. 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. Because we live in a world that is changing continually and because people have different viewpoints, we find that conflict arises in reaching agreement on common objectives. Thus it is the government's role to reconcile this conflict and to ensure that the economic well-being of all citizens is maximised.

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 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. 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.

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 the chances of my 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. 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, 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?

We judge the economy in terms of outcomes. Individually and collectively, we expect the economic system – our national economy – to achieve certain objectives. Economists over time have selected the following objectives as criteria to assess the performance of the Australian economy:

- sustainable economic growth
- **internal stability**
- **external stability**
- improved standard of living
- equitable distribution of income and wealth
- sustainable development via efficiency in resource allocation.

Although the selection of goals is subjective, government institutions, different stakeholders and interest groups have identified these as desirable objectives.

QUESTIONS

- 1 Design and justify your own set of economic objectives from the point of view of:
 - a a university student
 - b a 67-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. How difficult is it for the government to keep the circular flow of income in balance all the time?

ECONOMICS AND ICT



Reserve Bank of Australia

Australian Bureau of
Statistics

Australian Taxation Office

Australian Treasury

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 Internet sites listed. Discuss your findings with your teacher and identify any trends and relationships that may exist between the various economic indicators.

FIGURE 7.2 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				
Balance of payments				
Reserve Bank of Australia cash rate				
Net foreign debt				
Company tax rate				
Budget surplus/deficit				

In the following examination of each of the objectives we have identified – sustainable economic growth, internal stability, external stability, improved standard of living, equitable distribution of income and wealth, and sustainable development via efficiency in resource allocation – 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 then explore the relationships between various objectives and the existence of possible conflict that can occur.

7.2.1 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

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

Real GDP: the value of final output of an economy's goods and services adjusted for the effects of inflation

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 probably the most widely used indicator 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. The Australian Government has a goal of maintaining annual economic growth of between 3 and 4 per cent. Interestingly, over the past few decades, 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 such that future growth is not jeopardised by the environmental impacts of resource depletion, pollution and climate change.

Changes in levels of GDP serve as an indication of the rate of economic growth in the economy; they allow the government to identify and perhaps forecast periods of boom, recession or stagnation in the economy. 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 7.3). 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.

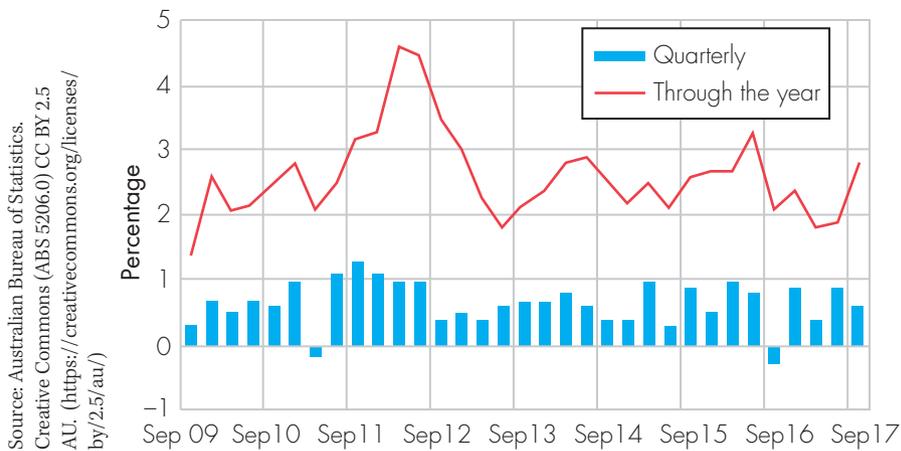


FIGURE 7.3 Australian GDP growth 2009–17

There are limitations to the usefulness of GDP as a measure of growth. Some of these are listed below:

- 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 tell us anything about distribution of wealth; for example, is growth shared evenly or are the benefits in the hands of the rich few?
- The actual cost of all production is not included; for example, the cost of an owner using his or her 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 both add to the nation’s GDP, but both have implications for future generations.

Another alternative to using GDP as the basis of a measure of 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.

QUESTIONS

- 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 seen as an alternative measure to changes in production of all goods and services?

7.2.2 Internal stability

CONCEPTS



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

Full employment: situation 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

Natural unemployment rate: the percentage of the labour force that is unemployed when the labour market is in equilibrium; includes frictional, structural and long-term unemployment; also known as 'non-accelerating inflation rate of unemployment'

Price stability: a state of the economy in which there is little variation in prices; that is, there is low inflation

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 objective from the point of view of individuals, businesses and the nation.

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 their day-to-day living. The weights reflect the importance of an item in the 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 7.4.6).

Figure 7.4 illustrates how much prices have changed in recent years. Ensuring inflation is kept under control is essential because price increases may place pressure on interest rates, and most certainly will reduce the purchasing power of individuals and businesses, and reduce our 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.

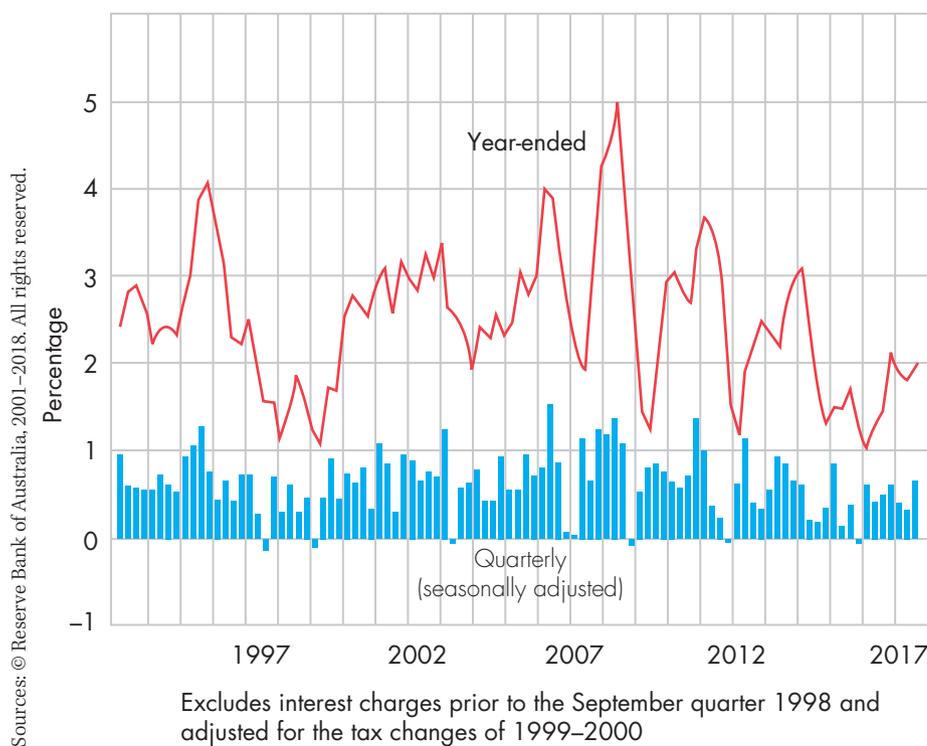


FIGURE 7.4 Consumer price inflation 1997–2017

Full employment

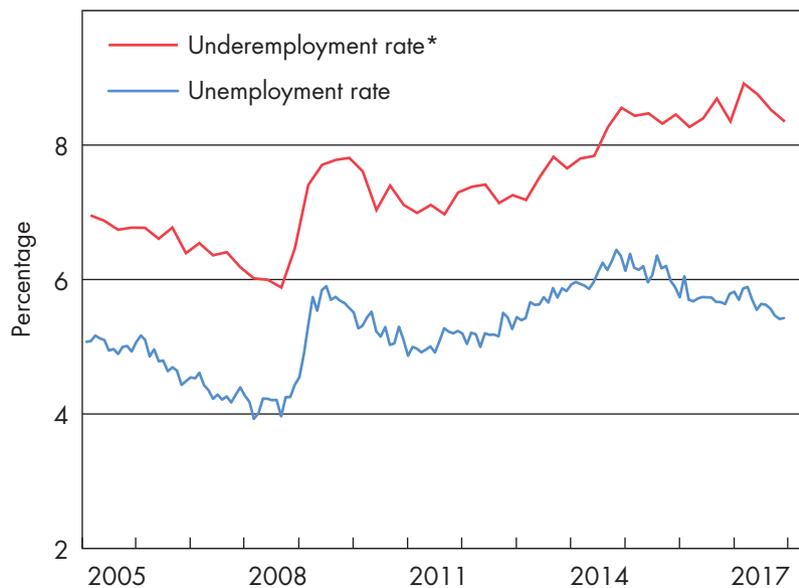
Full employment is usually taken to mean the maintenance of a socially acceptable rate of **unemployment**. In a modern economy, it is extremely unlikely – and indeed undesirable – that zero unemployment could ever be achieved. You can imagine the pressure on wages growth and the flow-on effects for inflation in an economy with zero unemployment.

Unemployment is undesirable for the individual and for the nation as a whole. To 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.

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 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.

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 on unemployment in Section 7.4.3.

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.



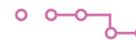
* Full-time workers on reduced hours for economic reasons and part-time workers who would like, and are available, to work more hours

Source: © Reserve Bank of Australia, 2001–2018. All rights reserved.

FIGURE 7.5 The trend in Australia's unemployment rate 2005–17

7.2.3 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 items: inflows and outflows of money resulting from foreign investment, foreign lending and borrowing in the international financial markets

Current account items: inflows and outflows of money resulting from buying and selling goods and services, and from earning income in the international market place

Deficit/surplus balances: differences between international receipts and payments

KEY IDEA

The economic objective of external stability refers to government policy measures that help to ensure Australia meets its financial obligations with the rest of the world. The key focus of this 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 well-being 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. 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 well-being of its people. With our economic prosperity at stake, government must be mindful, and consider the question of whether Australia is paying its way internationally.

One indication of whether a nation is paying its way internationally is the **balance of payments**, 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. You will recall from earlier chapters 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 Figures 7.6 and 7.7, Australia has consistently run a current account deficit.

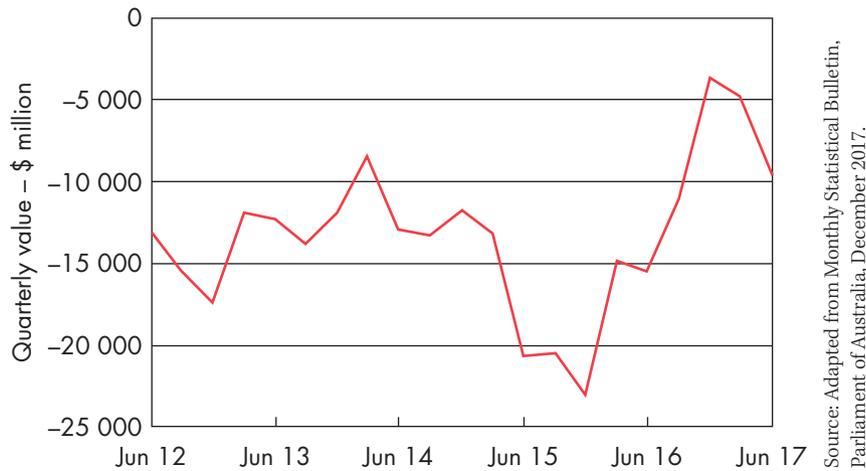


FIGURE 7.6 Balance on current account for Australia – graph form

FIGURE 7.7 Balance on current account for Australia – table form

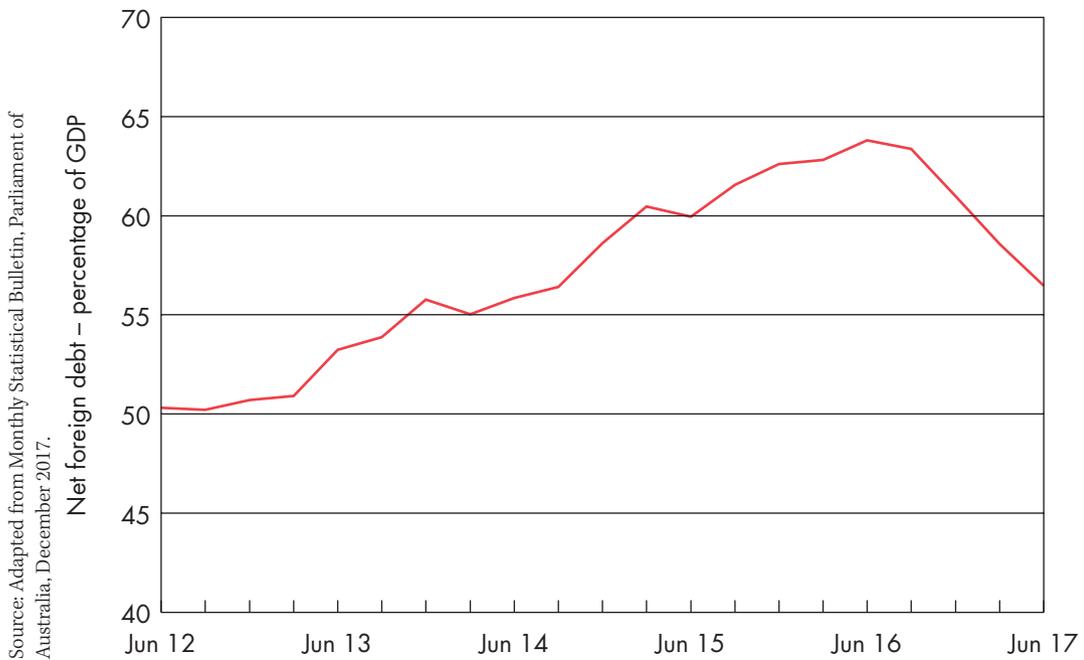
Balance on current account (\$ million)					
	2012–13	2013–14	2014–15	2015–16	2016–17
September	-15 477	-13 800	-13 304	-20 501	-11 020
December	-17 456	-11 835	-11 708	-23 051	-3 557
March	-11 881	-8 343	-13 140	-14 775	-4 754
June	-12 351	-12 848	-20 681	-15 426	-9 562

Source: *Monthly Statistical Bulletin*, Parliament of Australia, December 2017

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. The difference between inflows and outflows of investing and lending is the balance on capital financial account. This difference may be a **surplus or a deficit balance**.

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 has led the USA under President Donald Trump to consider imposing restrictions and tariffs on Chinese goods to reduce the disparity in their trade relationship.

Conversely, persistently large deficits in the current account mean the nation will have to rely on the capital and financial account surpluses to balance 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 well-being will fall, impacting the standard of living for a nation’s citizens. Figures 7.8 and 7.9 highlight 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.



Source: Adapted from Monthly Statistical Bulletin, Parliament of Australia, December 2017.

FIGURE 7.8 Australia’s net foreign debt – graph form

FIGURE 7.9 Australia’s net foreign debt – table form

Net foreign debt (\$ million)					
	2012–13	2013–14	2014–15	2015–16	2016–17
September	752 660	830 031	902 617	1 001 366	1 057 154
December	764 341	869 746	941 029	1 023 140	1 034 531
March	772 221	868 051	974 125	1 030 745	1 011 765
June	813 217	887 914	969 514	1 056 125	990 599

Source: *Monthly Statistical Bulletin*, Parliament of Australia, December 2017

QUESTIONS

- 1 Why does full employment 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 What are the benefits of international trade? What are some of the costs of international trade?
- 5 Outline 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 7.7 and 7.9 as a starting point, conduct some online research to update the statistics for the current year. Then analyse the balance on the current account and Australia's net foreign debt position. Describe and account for any trends you have identified.

7.2.4 Improved standard of living

CONCEPTS



Quality of life: the overall well-being of individuals according to their material living standards and a range of other considerations, such as health standards, education levels and happiness

KEY IDEA

The means by which an economy of a nation as a whole aims to maximise the overall well-being 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 these 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.

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 2017 report conducted by the US-based Commonwealth Fund compared the health-care system of 11 high-income countries, focusing on issues of access, efficiency, equity and health outcomes. Figure 7.10 highlights Australia's standing across the criteria.

FIGURE 7.10 National health-care systems

Ranking	Overall	Care process	Access	Administrative efficiency	Equity	Health outcomes
1	UK	UK	Netherlands	Australia	UK	Australia
2	Australia	Australia	Germany	New Zealand	Netherlands	Sweden
3	Netherlands	New Zealand	UK	UK	Sweden	Norway
4	New Zealand	Netherlands	Australia	Norway	Switzerland	Switzerland
5	Norway	USA	Norway	Sweden	New Zealand	France
6	Switzerland	Canada	Sweden	Germany	Norway	Netherlands
7	Sweden	Switzerland	New Zealand	Canada	Germany	New Zealand
8	Germany	Germany	Switzerland	Switzerland	Australia	Germany
9	Canada	France	France	Netherlands	Canada	Canada
10	France	Norway	Canada	USA	France	UK
11	USA	Sweden	USA	France	USA	USA

Source: Commonwealth Fund

Food consumption and nutrition levels

Related to health are the levels and quality of food consumption and 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 2017, Australia was ranked fifth in the world for obesity per capita. This phenomenon is not unique to Australia, with obesity rates in the developed world having doubled since 1980 to a rate of 1 in 10 people being clinically diagnosed as obese. The shift in people's diets towards highly processed foods and the move to a more sedentary lifestyle will have long-term economic consequences for both a nation's productivity and 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 came in ninth place, with a national education spend equivalent to 5.8 per cent of GDP, with Denmark leading the world in first place by spending 6.6 per cent of its GDP on education.

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 well-being, 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 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 (UN) began an ambitious program to measure happiness within nations. The UN 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 well-being 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. It naturally follows, then, that those happier populations will be healthier and more productive, thus contributing further to the prosperity of their economy. Thus a self-perpetuating system evolves. There have been five *World Happiness Reports* commissioned, and the latest – in 2017 – used six criteria to measure happiness. Respondents to the survey were asked to evaluate their lives across the key indicators of freedom, generosity, health, income, social support and trustworthy governance. Figure 7.11 highlights the top ten happiest nations, along with the bottom five.

FIGURE 7.11 World happiness scores, 2017

Rank	Country	Happiness score
1	Norway	7.537
2	Denmark	7.522
3	Iceland	7.504
4	Switzerland	7.494
5	Finland	7.469
6	Netherlands	7.377
7	Canada	7.316
8	New Zealand	7.314
9	Australia	7.284
10	Sweden	7.213
150	Togo	3.495
151	Rwanda	3.471
152	Syria	3.462
153	Tanzania	3.349
154	Burundi	2.905
155	Central African Republic	2.693

Source: *World Happiness Report 2017*

7.2.5 Equitable distribution of income and wealth

CONCEPTS



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

Distribution of income: the way that a country's income is spread among individuals within various socioeconomic groups

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. According to the World Bank, at the end of 2017 Australia was ranked 96th out of 118 nations in relation to having the lowest level of income 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.

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 more likely than the overall population to experience 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.

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 9 of *Economics for the Real World Units 1 & 2*.

QUESTIONS

- 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 7.12 shows the 2017 ranking of Australia against other nations by the OECD, the World Health Organization (WHO), the World Bank and the UN on a number of key indicators. Conduct some online research to establish where Australia is ranked this current year, across these same indicators. Then conduct a class discussion on whether you think Australia’s general standard of living has improved or declined since 2017, making sure you support your position with evidence from your research.

FIGURE 7.12 Australia’s rankings, 2017

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 (83 years)	4th	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	9th	155
Lowest income inequality (Gini coefficient)	96th	118
Gender pay gap	25th	35

Source: OECD, WHO, World Bank and UN

7.2.6 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 now 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.

Efficiency can be measured through such things 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, agriculture and others. 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 goal 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.

7.2.7 Conflict of objectives

KEY IDEA

Policy makers are confronted with the problem that some of the government's economic objectives are incompatible. Political decisions, taking into account the interests and concerns of all stakeholders, must be made about acceptable trade-offs.

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 v slower economic growth
- low inflation v high unemployment
- rapid economic growth v balance of trade deficit
- reduction in inequalities v reduction in incentives to invest
- foreign investment v loss of independence
- technological innovation v unemployment
- increased specialisation v dissatisfaction and industrial disputes
- trade barriers to protect jobs v inefficient use of resources
- industry restructuring v structural unemployment and poverty
- economies of scale v urbanisation and large-city problems
- quantity of material outputs v quality of working life
- growth from the more extensive use of easily accessible resources v growth forgone from the more intensive or efficient use of resources.

If we examine what might be the causes of an economy's performance, according to the selected objective, it is not difficult to see why conflicts arise. Linked with each objective are the interests of various stakeholders, who seek to influence and lobby elected politicians to pursue their group's respective social and economic agendas. 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.

QUESTIONS

- 1
 - a Research newspapers and journals for recent examples of conflicting and complementary economic objectives.
 - b Analyse the issue/s to determine causes and/or 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 The economic/business cycle

CONCEPTS



Boom: the phase of the trade 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 'downturn'

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 trade 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 tends to fluctuate in a cyclical manner over time between periods of recession and economic 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 7.13 and in the description below:

- **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 slowdown in the rate of increase of demand and production will lead to a slowing down of investment. The economy therefore begins to slow.

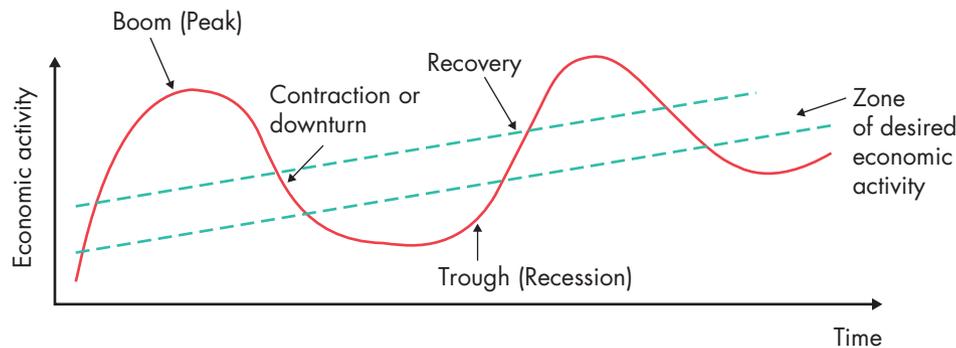


FIGURE 7.13 The economic cycle

- **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. In fact, Australia has been very fortunate and has not experienced a technical recession since 1991–92.

There are a number of factors that may cause the economy to begin to move out of the 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 consumer and business confidence, will often reinforce fluctuations. Businesspeople 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 on the upswing, the cycle starts all over again.

This is a simplified picture of what actually occurs, but it does illustrate 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.

QUESTIONS

- 1 What is the economic cycle?
- 2 Explain the various stages of the economic cycle.
- 3 Why do you think governments have difficulty eliminating the swings in the economic cycle?
- 4 Why do economists consider a boom to be undesirable?

ECONOMICS AND ICT



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, conduct a class discussion and, as a group, make a decision regarding where Australia is in its economic cycle. Then, as a class, reach a consensus 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 (or one negotiated with your teacher).

- 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 NelsonNet may help you get started.



Australian economy
bibliography research

7.4 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

Trend: the general movement over time of a statistically noticeable change

KEY IDEA

Economic indicators are used to identify the relevant phase of the economic cycle. There are three types: leading indicators, coincident indicators and lagging indicators. By examining all three types we can obtain a comprehensive understanding of how an economy is performing, both in historical terms and in relation to other nations.

Economists use a range of key indicators to identify the relevant phase of the trade cycle in which the economy is operating. These are classified into three types: **leading indicators**, **coincident indicators** and **lagging indicators**. An index constructed from all three is known as a **composite index indicator**.

7.4.1 Leading indicators

Leading indicators include factory overtime, dwelling approvals and money supply. They provide economists with information regarding changes in general economic activity in advance of it actually occurring in the trade 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.

7.4.2 Coincident indicators

Coincident indicators include retail sales, new car registrations, factory production and job vacancies. They 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.

7.4.3 Lagging indicators

Lagging indicators include the CPI, unemployment and investment expenditure. These can 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 a businessperson 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.

7.4.4 Composite index indicator

To accurately determine the phase of the economy on the economic cycle, a range of the three types of indicators needs to be used. As shown in Figure 7.14, leading indicators tend to peak and trough in advance of the trade cycle. Coincident indicators peak and trough at about the same time, and lagging indicators follow the trade cycle. Even with all this data, economists often have difficulty in reaching a consensus regarding the location of the economy on the trade 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.

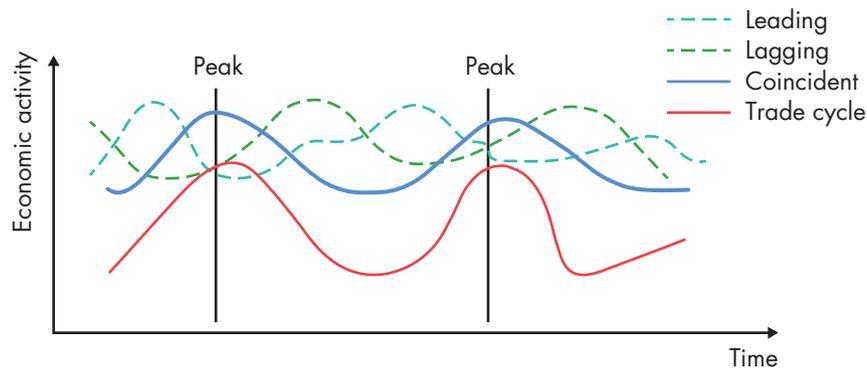


FIGURE 7.14 Fluctuations in leading, lagging and coincident indicators can be used to plot the position of an economy in the economic cycle.

ECONOMICS IN ACTION



Forecasting

Use the range of economic indicators for a hypothetical economy provided in Figure 7.15 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).

FIGURE 7.15 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

7.4.5 Measuring aggregate demand and supply

You will recall from the previous chapter 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. Accordingly, it is important to recognise that the aggregate expenditure model provides the context for studying the various 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.

As we scrutinise the various economic indicator data making up both demand and supply factors and their influence on economic and business activity, we must be mindful of the human impacts. Accordingly, because of their strong, direct influence on people's day-to-day lives, we will now concentrate on two particular indicators: inflation and unemployment. These are important as they are two of the most useful indicators of the current state of the Australian economy.

7.4.6 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

GDP deflator: the index of variations in the prices of goods and services that make up GDP

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.

Defining 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 colour television may decrease by 2 per cent.



FIGURE 7.16 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 table tennis balls.

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 war years, and 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 this 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 7.17 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 7.17 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.

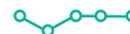
CPI

The CPI is the most widely used and quoted 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 7.18 compares the weightings of the 1963, 1986, 1992, 2000, 2010 and 2017 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 7.18 Weighting of CPI components

Group	Dec 1963 (%)	Dec 1986 (%)	Jun 1992 (%)	Jun 2000 (%)	Jun 2010 (%)	Jun 2017 (%)
Food	31.6	21.3	18.3	17.7	15.44	16.09
Clothing	18.8	7.8	6.3	5.2	3.91	3.55
Housing	12.0	13.5	15.9	16.5	19.53	22.68
Household equipment and operation	12.6	13.6	18.4	11.3	9.61	9.39
Transportation	11.3	16.4	16.0	15.2	13.11	10.32
Tobacco and alcohol	7.9	8.5	7.5	7.4	6.74	7.09
Health and personal care	N/A	7.5	6.8	4.7	4.70	5.43
Recreation and education	N/A	11.4	10.9	14.5	14.28	16.98
Communication	N/A	N/A	N/A	2.9	3.31	2.68
Financial and insurance services	N/A	N/A	N/A	N/A	9.31	5.80

Source: ABS

ECONOMICS IN ACTION


Use Figure 7.18 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 transportation
 - e health and personal care
 - f recreation and education
 - 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. 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 (Figure 7.19) 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.

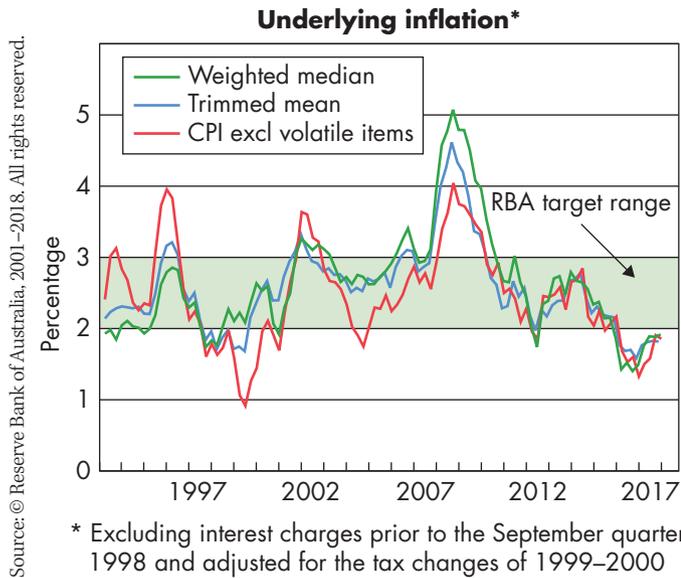


FIGURE 7.19 Movements in the CPI 1994–2017: the RBA target range is 2–3 per cent

There is an alternative measure of inflation: the **GDP deflator**.

GDP deflator

The GDP deflator provides a broader coverage of price changes than does the CPI. As GDP includes all components of output, the deflator combines the price movements of all sectors of the economy (producer, wholesale and retail), whereas the CPI shows only price changes at the retail level. The deflator also includes changes in the cost of providing some government services, such as defence, that are not included in the CPI.

The GDP deflator does, however, have a number of drawbacks as a measure of domestic inflation:

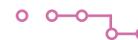
- It is influenced by fluctuations in export prices. If export prices of some products are increasing while domestic prices are unchanged, the increase in the GDP deflator will exceed domestic inflation.
- More importantly, there is a time lag in the release of GDP statistics. The CPI is usually available some months ahead of the GDP statistics and, for this reason, is generally used as the measure of inflation in Australia.



FIGURE 7.20 What are we going to do about inflation?

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 thorough 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-push is the principal cause of a particular period of inflation.

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.

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.

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 the early 1990s, Australia's inflation rate was very high, at almost 8 per cent; but in 1974 it reached 16 per cent. Such rapid increases in inflation erode the value of money over time and reduce 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.

QUESTIONS

- 1
 - a What is 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
 - a Explain the main steps in compiling a price index.
 - b How does the CPI compare with the GDP deflator as an inflation 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 such as the one below and, from your reading, research and discussion with others in the class, complete the columns.

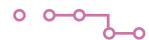
FIGURE 7.21 Effects of inflation

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.

7.4.7 Measuring unemployment

CONCEPTS



Employed person: a person who works at least one hour per week

engaged in seeking a job; also known as 'working population'

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

Participation rate: the percentage of the population over the age of 15 that is in the labour force





Seasonal unemployment: unemployment due to the seasonal nature of some work

Unemployment rate: the percentage of the labour force that is unemployed

Unemployed person: a person who is actively but unsuccessfully seeking employment

KEY IDEA

Unemployment is another major problem associated with economic instability. Unemployment, particularly long-term unemployment, 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.

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** (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 2006 and 2017 has fluctuated between 4.0 per cent and 6.4 per cent (see Figure 7.22).

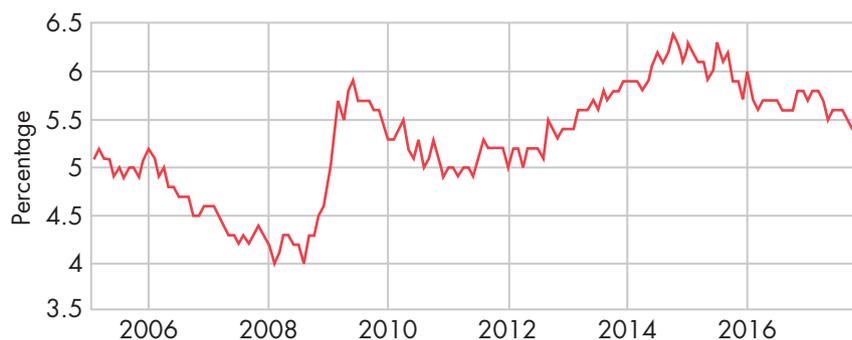


FIGURE 7.22 Australia's unemployment rate

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. Despite the fact that the unemployment rate has risen, the increasing participation rate and employment levels indicate that the economy is expanding, people are confident of getting jobs, and more people are actively searching for work.

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 7.2.2, 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?
- 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 of the unemployment rate.
- 4 **Seasonal unemployment** occurs because of the seasonal nature of some occupations, such as ski instruction, shearing and fruit picking.

Other employment concepts that are used in assessing economic performance are the concepts of disguised unemployment and the natural unemployment rate.

Disguised or hidden 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

It is important to have an understanding of the natural unemployment rate and how it helps economists when making policy decisions. 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 without raising the inflation rate. It is also referred to by economists as the non-accelerating inflation rate of unemployment (NAIRU). At this point, cyclical unemployment has been eliminated; but some frictional, structural and long-term unemployment will always exist, even in a dynamic economy at equilibrium. These three comprise the natural unemployment rate, which could also be described as the 'full-employment' unemployment rate; that is, when the measured or actual rate of unemployment is equal to the natural unemployment rate. (Another way to think of potential GDP is to refer back to the production-possibilities frontier 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.)

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.

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.

The effect of unemployment

CONCEPTS



GDP gap: the difference between actual and potential GDP

Incidence of unemployment: the extent to which different groups of people experience unemployment

Long-term unemployed: people unemployed for 52 weeks or more; also known as 'hard-core unemployed'

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. Below full capacity 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.

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.

Figure 7.23 highlights the average duration of unemployment for 2016 across various age groups. To provide some context, in 1993 the average period of unemployment was 57 weeks. Clearly, this period of unemployment has steadily declined for some age groups and not others. The longer the average duration of unemployment, the greater the social and economic costs of unemployment.

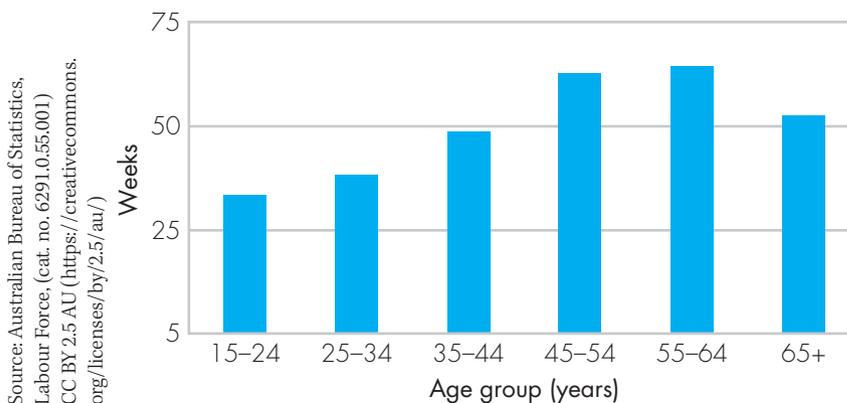


FIGURE 7.23 Average duration of job search by selected age groups, September 2016

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 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.

Hard-core unemployment, therefore, becomes very persistent and very hard to reduce through policy and economic growth.

7.4.8 Stagflation

CONCEPTS

Phillips curve: a graph of the proposition that there is a trade-off between inflation and the unemployment rate

Stagflation: situation in which inflation exists simultaneously with low levels of economic activity

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.



Source: Mike Keefe, Courtesy of Cagle Cartoons

FIGURE 7.24 Stagflation

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 has had to be abandoned to a great extent. High rates of unemployment and inflation have 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**. Figure 7.25 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.

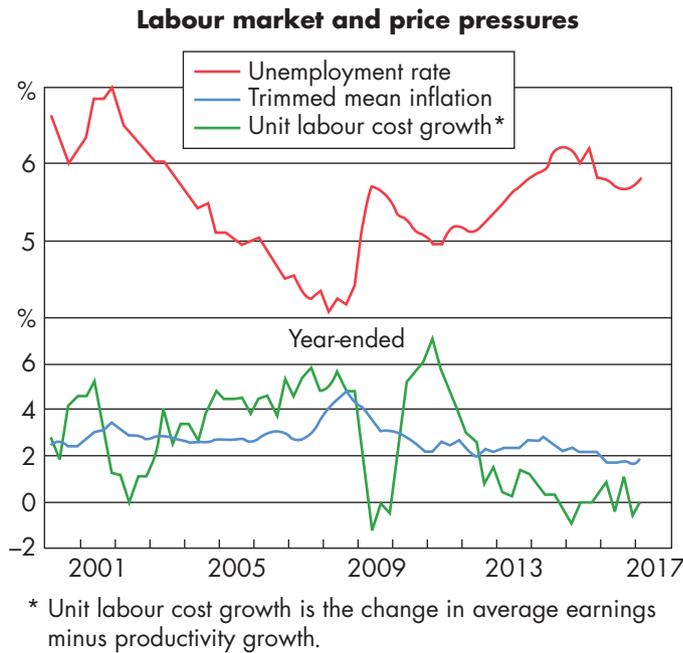
FIGURE 7.25 Australian unemployment and inflation: selected years

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
2011–12	5.5	3.0
2012–13	5.8	2.2
2013–14	5.9	2.7
2014–15	6.2	1.7
2015–16	6.0	1.5
2016–17	5.7	2.1

Source: RBA

The Phillips curve

Figure 7.26 tracks Australia's unemployment rate and trimmed mean inflation rate from 2001 to 2017. 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 two graphs, one might observe the correlation between movements in unemployment and inflation.



Source: © Reserve Bank of Australia, 2001–2018. All rights reserved.

FIGURE 7.26 Australian unemployment and inflation

However, the relationship between inflation and unemployment is not necessarily so straightforward. If we examine Figure 7.27, 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.

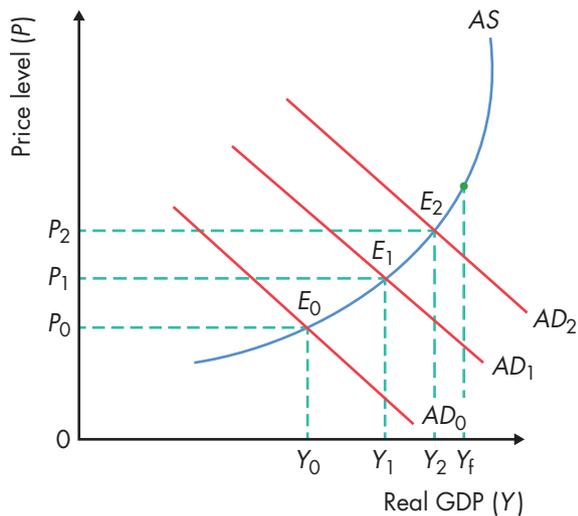


FIGURE 7.27 Employment and price effects of increasing aggregate demand (AD)

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 7.28, then policy makers may choose a desired inflation–unemployment combination.

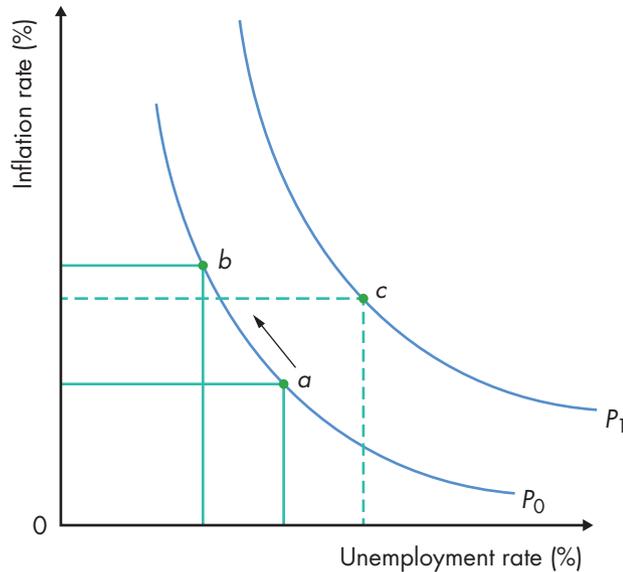


FIGURE 7.28 The Phillips curve: inflation–unemployment trade-off

Demand-pull and cost-push theories of inflation and unemployment can be represented by the Phillips curve. An increasing AD , as shown in Figure 7.28, can be represented by a movement along the Phillips curve (a to 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.

QUESTIONS

- 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? List some effects of long-term unemployment.

7.5 The role of government in managing the economy

CONCEPTS



External policy: measures taken 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

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 assumes 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. We are now left with the 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.

7.5.1 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.

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. Nearly everybody acknowledges 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.

7.5.2 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 focus 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 market place can also affect income distribution, such as minimum wage legislation, farm subsidies, tariffs on imports and price controls.

7.5.3 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 reform 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 8, 9 and 10.

QUESTIONS

- 1 List 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?

7.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 The Federal Government establishes and prioritises a number of economic objectives to achieve its goal of improving living standards and maintaining economic prosperity.
- 2 Full employment only occurs when everyone in an economy has a job.
- 3 Internal stability refers to a situation where there are no unwanted movements of foreign reserves in the balance of payments.
- 4 The GDP deflator provides a broader coverage of price changes in an economy than does the CPI measure.
- 5 The headline rate of inflation has been adjusted for non-economic factors.
- 6 Frictional unemployment is a result of unemployment due to the seasonal nature of some work.
- 7 Cost-push inflation results from rising production costs.
- 8 The number of new motor vehicle registrations is a useful key indicator that informs economists about changes in economic activity to come.
- 9 An example of the government's stabilisation role in the economy is the use of taxation policy.
- 10 The government should play no role in the supervision and regulation of free markets.

7.2 Terminology

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

- | | |
|----------------------------------|-------------------------------------|
| A Leading indicator | F Consumer price index (CPI) |
| B Recession | G Internal stability |
| C Frictional unemployment | H Lagging indicator |
| D Cost-push inflation | I Structural unemployment |
| E Balance of payments | J Demand-pull inflation |

- 1 The summary of a nation's payments to, and receipts from, the rest of the world over a year
- 2 An indicator that provides information regarding changes in the economy after they occur in the economic cycle
- 3 Unemployment that occurs when economic needs change, causing jobs themselves to change or disappear
- 4 The phase of the trade cycle where the general level of economic activity is below the economy's potential
- 5 A measure of the average change in the price of a selected range (basket) of consumer goods and services
- 6 Inflation that results from excessive demand
- 7 A state of the economy in which there is full employment and acceptable levels of inflation

- 8 Inflation that results from rising production costs
- 9 An indicator that provides information regarding changes in the economy before they occur in the economic cycle
- 10 Unemployment related to time lags involved in the transition between jobs

7.3 Multiple-choice questions

Select the correct response to each of the following:

- 1 If the CPI rises from 120 to 132 over a year, what is the inflation rate?
 - A \$132
 - B 12 per cent
 - C 10 per cent
 - D 32 per cent
- 2 The CPI can be used to measure changes in the cost of living because it:
 - A measures changes in the general price level.
 - B takes account of the distribution of income.
 - C exactly takes into account everyone's purchases.
 - D expresses changes in prices in dollar terms.
- 3 Which of the following is a difference between the CPI and the GDP deflator?
 - A The GDP deflator is a measure of price changes.
 - B The CPI uses the market value of products.
 - C The GDP deflator uses a different set of weights.
 - D Only the CPI can be used for indexation.
- 4 A form of unemployment associated with a decline in real GDP is:
 - A cyclical.
 - B disguised.
 - C structural.
 - D seasonal.
- 5 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
- 6 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.

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- 7 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.
- 8 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.
- 9 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.
- 10 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.
- 11 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.
- 12 Which of the following is *not* an example of a conflict in economic objectives:
- A low inflation v high unemployment
 - B increased use of capital goods and technological innovation v high employment
 - C trade barriers to protect jobs v slower economic growth
 - D foreign investment v loss of independence
- 13 Which of the following would characterise a recession in the economic cycle?
- A All the economies resources are fully employed and high aggregate demand causes prices to rise.
 - B Business profits are being squeezed and aggregate demand levels off.
 - C Interest rates and prices are low, unemployment is high and aggregate demand is very weak.
 - D Business investment is high and government taxation revenue peaks.

- 14** 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.
- 15** 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

7.4 Activities

Calculating a price index

Use the table in Figure 7.29 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 7.29 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 7.30 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 7.30 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 following data is known about Richland's economy.

FIGURE 7.31 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?

7.5 Group work

The best party

Split your class into four equal groups. One group is to represent the Australian Labor Party, the second group is to represent the Liberal Party of Australia, the third is to take on the role of the Australian Greens and the fourth group, the National Party of Australia. Each group needs to research and present a range of macroeconomic policies for their respective political party. Once each group has concluded their research, they should present their findings to the rest of the class. Use the following to assist in your research:

- 1 What is your party's policy on dealing with unemployment?
- 2 What is your party's policy on ensuring sustainable economic growth?
- 3 What is your party's approach towards the equitable distribution of income and wealth across the community?
- 4 What is your party's approach to managing the environment?
- 5 What are your party's policy initiatives to assist the business sector?
- 6 What is your party's foreign policy in relation to trade and foreign investment?
- 7 What is your party's position on the issues of health and education?

Once all groups have presented their research, hold a secret ballot election (to be administered by your teacher) to decide which party has the best policies for Australia.

Famous economists

Split your class into four equal groups. Each group is to research one of the following famous economists, using the questions below to guide their research. Once each group has concluded their research, they should present their findings to the rest of the class.

- Adam Smith
 - John Maynard Keynes
 - John Kenneth Galbraith
 - Milton Friedman
- 1 Outline the main arguments and theories of your selected economist, using them to illustrate how economic theories are dynamic in nature and respond to changes in society.
 - 2 Evaluate your selected economist's contribution to the evolution of economic ideas.
 - 3 Evaluate the relevance of your selected economist's ideas to the present economy and current economic thinking.

7.6 Inquiries

- 1 Which is worse, unemployment or inflation? Examine the question from different points of view (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 Global Financial Crisis (GFC), which started in mid-2008. What policies did the Australian Government pursue? How effective were these policies in coping with the GFC?
- 7 Research the arguments and theory behind 'economic rationalism'. What do economic rationalists believe about the role of government in the economy and how does it differ from current economic thinking? Explain, using examples, which economic management policies would be supported by economic rationalists.

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 7
answers

8

Economic management: 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

- Why does the government develop and implement macroeconomic policies?
- What is fiscal policy?
- What role do automatic stabilisers and discretionary spending have in influencing aggregate demand and stabilising the economic cycle?
- What are the strengths and limitations to the effectiveness of fiscal policy?
- Why have the fiscal policy stances 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?

To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:

- 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
- 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
- causes and effects of recent fiscal policy stances
- time lags and exogenous factors.

8.1 The nature of fiscal policy

CONCEPTS



Budget: a statement of the government's estimated revenue and expenditure for the coming financial year

influencing a nation's aggregate demand; can be discretionary or non-discretionary (automatic stabilisers)

Fiscal policy: measures undertaken by governments in relation to raising revenue through taxation and determining the nature of government expenditure, aimed at

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 Federal Parliament votes to accept the Commonwealth Budget, money can be released from the Commonwealth's accounts with the Reserve Bank of Australia 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 Federal 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.

8.2 Government income and expenditure

CONCEPTS

Direct tax: any tax that is borne by the person or firm on whom it is levied because it cannot be passed on to someone else; for example, income 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)

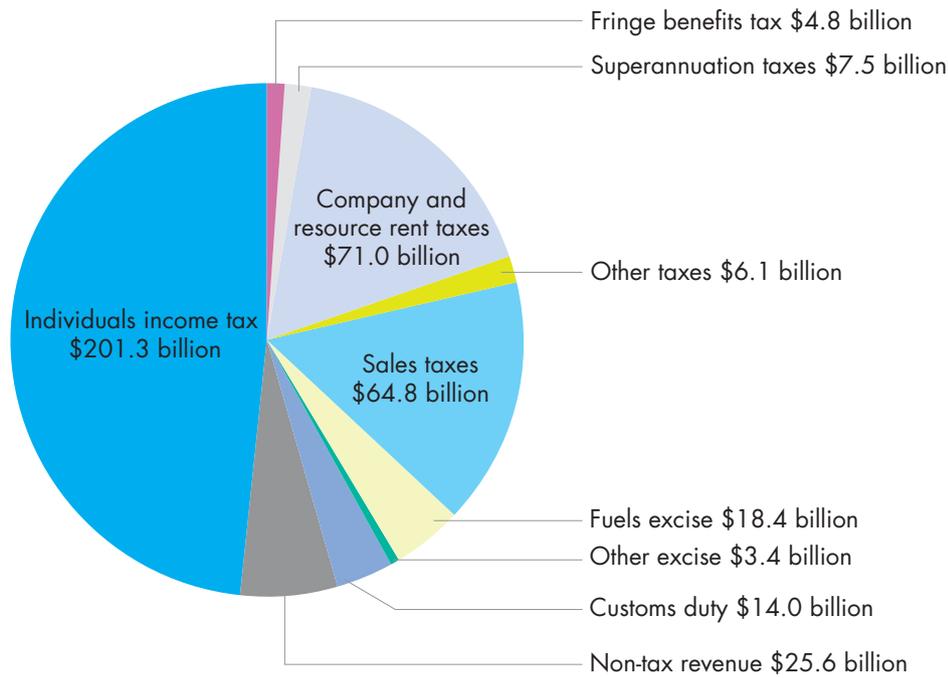
Regressive tax: a tax system in which the ratio of the tax to income is lower with large incomes than with small incomes

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, including:

- **direct taxes** on individuals (income, the Medicare levy) and businesses (company profits)
- **indirect taxes** (the goods and services tax, customs and excise duties)
- other revenues (dividends from government business enterprises and sale of government assets).

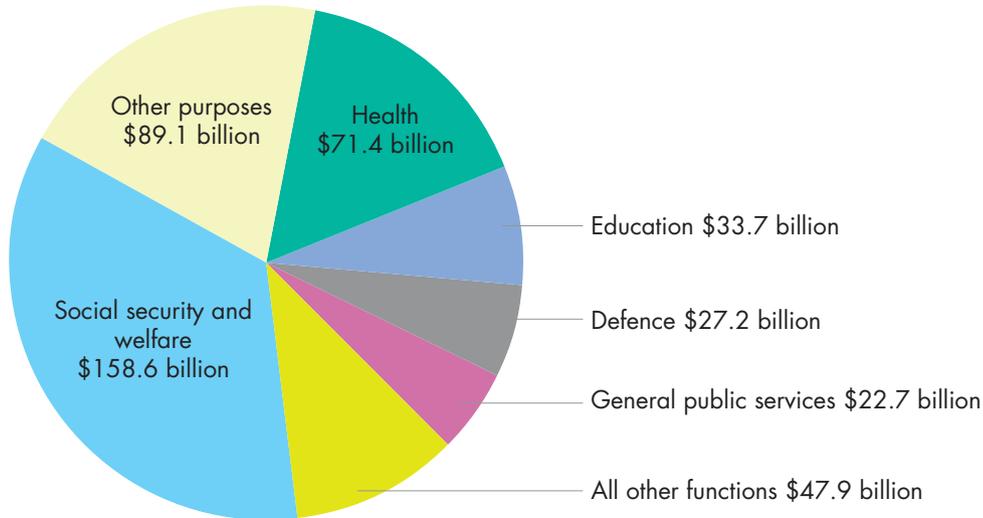


Source: Budget 2016–17 © Commonwealth of Australia 2018. CC BY 3.0 Australia (<https://creativecommons.org/licenses/by/3.0/au/>)

FIGURE 8.1 Where Commonwealth Government revenue comes from, 2016–17

The other side of the budget is government spending. The main items of government expenditure are:

- social security and welfare
- public administration
- health
- education
- defence.



Source: Budget 2016–17 © Commonwealth of Australia 2018.
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FIGURE 8.2 Where taxpayers' money was spent, 2016–17

A feature of Commonwealth budgets is that the largest area of government spending is on social security and welfare. 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.

QUESTIONS

- 1 What are the two main instruments (parts) of a government budget?
- 2 Compare and contrast government and household budgets.
- 3 Which payments in Figure 8.2 would be classified as transfer payments?

ECONOMICS AND ICT



Follow the link to explore the Commonwealth Budget 2017–18.

- 1 Using the 2017–18 budget papers, explore the 2016–17 budget outcomes. Compare the key details of the 2017–18 budget (the main sources of revenue and outlays) to the 2016–17 budget.
 - a In the 2016–17 budget, were budget outlays greater than receipts (a deficit budget)?



Commonwealth
Budget 2017–18





- b Has the relative importance of any areas of receipts and expenditures changed in the 2017–18 budget? (Refer to '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? (Refer to 'Appendix F: Historical budget and net financial worth data' in 'Budget Overview'.)

8.2.1 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 as **taxation criteria**; that is, ways of judging whether a tax is a good one or not. The above 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.

QUESTIONS

- 1 Use the data in the pie chart on government sources of revenue (Figure 8.1) to calculate what percentage of total tax receipts come from tax on the income of individuals.
- 2
 - a What are Adam Smith's four principles of taxation?
 - b How have these been adapted to become taxation criteria?
- 3 Use Smith's taxation criteria to guide a discussion that compares the costs and benefits of the current income taxation system in Australia.

8.2.2 Types of taxes

Each of the main forms of taxation levied by the Federal Government in Australia is briefly described below.

- **Income tax** is collected from individual workers under a withholding system known as ‘pay as you go’ (PAYG). Most people in Australia receive their principal income from wages or salaries; in this case, their employer is obliged to deduct the appropriate amount at each pay period and remit it to the Australian Taxation Office (ATO). 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 is an example of a direct tax.
- 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 (BAS), usually along with net GST payments.
- The rate of income tax increases as income increases (up to 45.0 per cent in 2017–18). Income tax is by far the most important type of federal tax.

FIGURE 8.3 Australian income tax brackets: financial year 2017–18

Taxable income	Tax on this income
\$18 201 – \$37 000	19c for each \$1 over \$18 200
\$37 001 – \$87 000	\$3572 plus 32.5c for each \$1 over \$37 000
\$87 001 – \$180 000	\$19 822 plus 37c for each \$1 over \$87 000
\$180 001 and over	\$54 232 plus 45c for each \$1 over \$180 000

- **Company tax** was levied on company profits at a flat rate of 30 per cent in 2016–17 (for medium-to-large businesses). From November 2017, small businesses (with a turnover of less than \$10 million) qualified for a lower tax rate of 27.5 per cent. Where profits are distributed to individual shareholders, franking credits are applied, which means that individuals pay a reduced amount of tax on their dividend income so that the same earnings are not taxed twice.
- **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 \$300 000.
- **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. On 1 July 2000, the GST replaced the state sales taxes that were levied on a variety of goods. GST is not normally included in a list of federal taxes; the proceeds are passed on to the various states, so it is not regarded as revenue by the Federal Government itself. 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 point below). In some instances, it is imposed purely to earn revenue for the Federal 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 Federal 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.

Proportional tax

If we look back to the statement by Adam Smith in Section 8.2.1, 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. The Australian personal income tax system is an example of a progressive tax, with tax rates at present ranging from zero to 45 per cent. You can check the current tax rates by following the link to the ATO’s individual income tax tables.



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.

The difference between progressive, proportional and regressive forms of taxation can also be shown graphically, as in Figure 8.4.

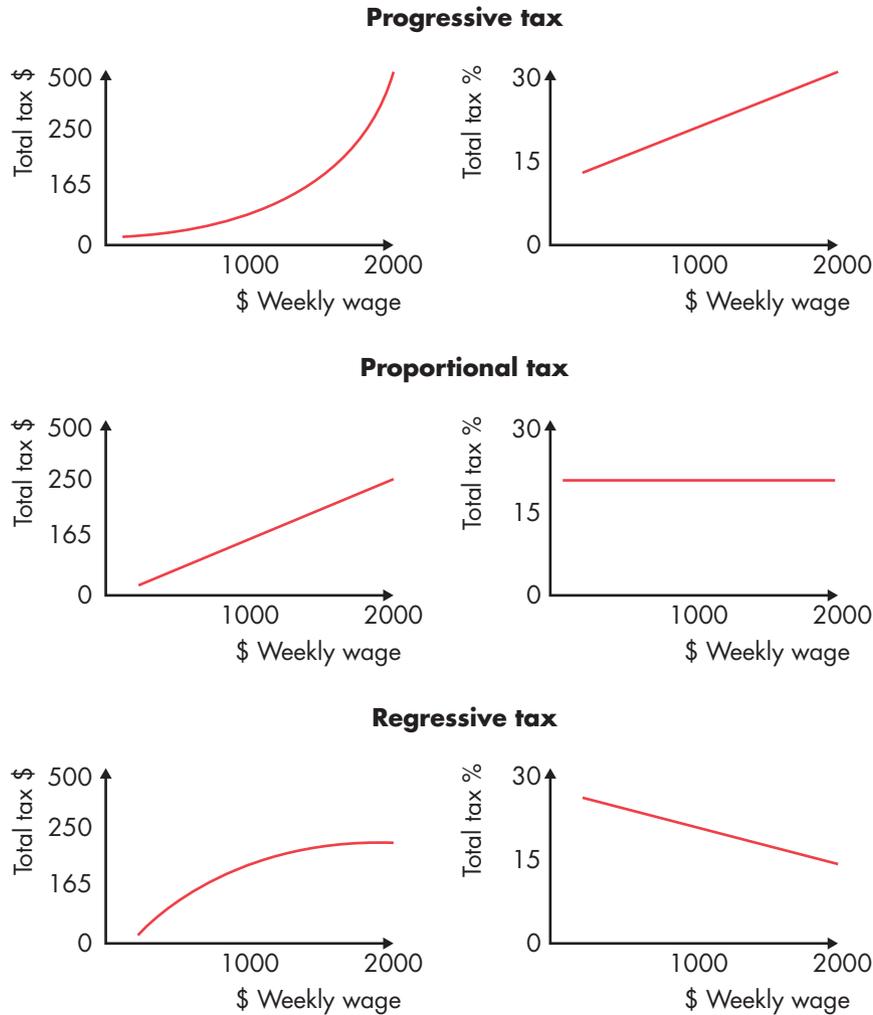


FIGURE 8.4 Taxation systems

8.2.3 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

The main forms of indirect taxation in Australia are the GST (which replaced sales taxes), excise tax and customs duty. 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, to some extent, concealed from those on whom they fall. Do you know how much of the money you pay for the goods you normally purchase goes to the government in one form of tax or another? 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 years, 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 earlier. 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. This combination of importance and acceptability has effects, not all of which may be beneficial to either the individual taxpayer or the economy.

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 overseas 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 Federal 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 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 8.3), so does the risk of a decision of this type.

A feature of progressive tax scales is 'bracket creep'. As inflation causes increases in wages, people continually move into higher and higher income tax brackets and therefore pay higher rates of taxation. Governments have not altered the rates sufficiently over the years to ensure that this does not occur. As this 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 a GST, it has been possible to lower income tax rates for most taxpayers.

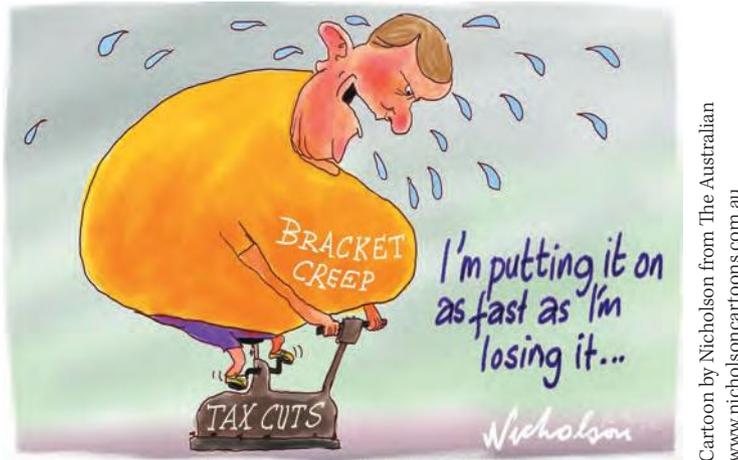


FIGURE 8.5 Income-tax bracket creep

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. One of the reasons given for the imposition of excise tax on these products was that the tax would discourage the

consumption of these goods. Similarly, a substantial rise in the excise tax 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.

QUESTIONS

- 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 \$15 750 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 Write an extended response (250–300 words) to one or more of the following topics:
 - 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 guide your evaluation of 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 guide your evaluation of this statement.

8.3 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

Budget deficit: a negative budget balance; when receipts fall short of expenditures

Budget surplus: a positive budget balance; when receipts exceed expenditures

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

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

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.

This chapter explores the fiscal policy decisions made by the Australian Government in response to data and information about the current level of economic activity. These decisions are based on the government's evaluation of the nation's current position in the economic cycle and of which economic objectives are the highest priority.

The application of fiscal policy is guided by macroeconomic objectives. It aims to influence the level of activity and economic growth in the Australian economy to achieve the short-run objectives of full employment or stability of prices. It is generally counter-cyclical in design, attempting to smooth fluctuations in the economic cycle by adjusting the level and structure of taxation and/or government expenditure.

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.

8.3.1 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 in Section 8.3.4.

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.

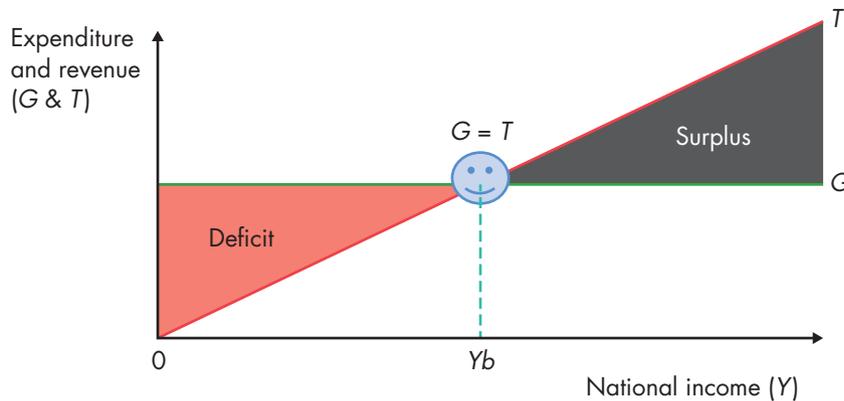


FIGURE 8.6 Possible budget outcomes

In Figure 8.6:

- The income level Y_b represents a balanced budget ($G = T$).
- The section shaded red shows a budget deficit ($G > T$).
- The section shaded black shows a budget surplus ($G < T$).

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).

8.3.2 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 is explained in Section 8.4). To counter an inflationary gap, the opposite action could be taken to reduce aggregate demand, possibly resulting in a budgetary surplus.

8.3.3 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, 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.

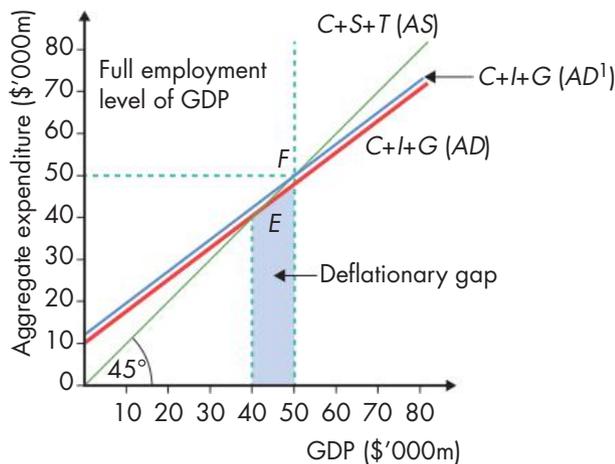


FIGURE 8.7 Fiscal policy to counter a deflationary gap

Figure 8.7 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.

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.

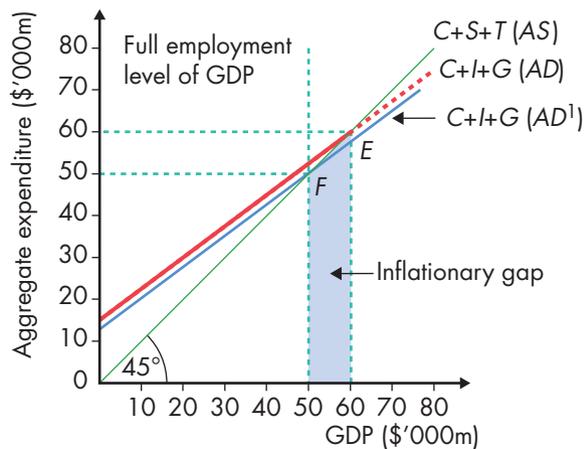


FIGURE 8.8 Fiscal policy to counter an inflationary gap

Figure 8.8 illustrates 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.

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 8.8 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 (Section 8.5 and Chapter 9). In recent years, the Australian Government has preferred to use monetary policy over fiscal policy for addressing the emergence of inflationary gaps.

8.3.4 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 Reserve Bank of Australia (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 8.9, 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.

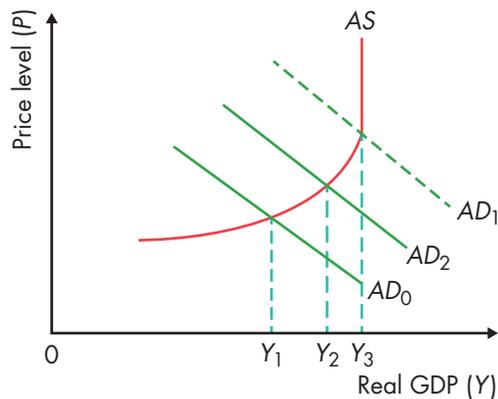


FIGURE 8.9 The crowding-out effect of deficit financing

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.

QUESTIONS

- 1 What are the two main considerations for governments when making fiscal policy decisions?
- 2 Contrast each of the following pairs of terms:
 - a 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.

8.4 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.

8.4.1 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, such as 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.

As noted in Section 8.1, in December of each year 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 midpoint 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.

8.4.2 Cyclical factors

Since 1991, Australia has experienced its longest period of economic growth. Growth phases in the 1970s and 1980s lasted only seven or eight years before a downturn in the economic cycle led to a recession. There were a couple of periods when economic growth slowed noticeably, but at no time did growth turn negative over a calendar year. The lowest rate that year-ended growth fell to was 0.7 per cent in the year to the March quarter 2009. The other slowdowns were in 2000–01, when growth slowed to 1.4 per cent, and since the Global Financial Crisis (GFC) in 2008–09. While growth remained positive, these slowdowns in economic activity did cause a noticeable rise in government expenditure accompanied by a fall in revenues. These business conditions were reflected in Commonwealth budget outcomes.

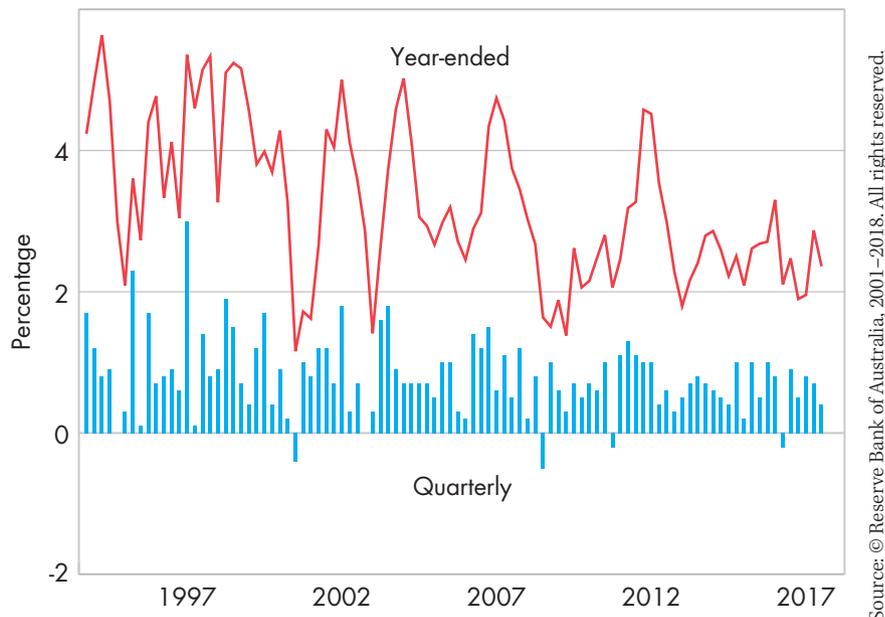


FIGURE 8.10 GDP growth

8.4.3 Recent budget outcomes

In 2002–03, revenue growth exceeded the increase in government expenditure, creating large underlying cash budget surpluses that were used to pay part of the government's net debt and increase the level of assets in the Future Fund.

In 2008–09, the budget moved into deficit. Revenues fell and spending rose as a result of the GFC. During the slow recovery from the GFC, revenues did not increase at the rates estimated in successive budgets, as commodity prices fell and tax from companies and individuals was below expectations. The result was a period of large budget deficits and higher net debt. Successive budgets since 2010 have planned deficits, but predicted a return to surplus in the forward estimates.

This pattern was repeated in the 2017–18 budget projection of a return to surplus in 2020–21. In the Budget Overview, Scott Morrison, the Treasurer at the time, stated that:

This Budget, once again, demonstrates the Government’s fiscal discipline. The bottom line is projected to return to balance in 2020–21 and remain in surplus over the medium term. The underlying cash balance is expected to improve from a deficit of 1.6 per cent of GDP in 2017–18 to a projected surplus of 0.4 per cent of GDP in 2020–21. This is an improvement to the bottom line of \$11.4 billion over the four years from 2017–18 to 2020–21 relative to the 2016–17 MYEFO. This Budget guarantees the essential services that Australians rely on, especially our most vulnerable, by guaranteeing important services like Medicare, fully funding the National Disability Insurance Scheme and delivering fairer and more transparent funding for students. The projected return to surplus comes despite considerable obstruction. The Parliament’s decision to reject previous savings measures has put great pressure on the bottom line, costing taxpayers more than \$13 billion over the forward estimates period. However, the Government has refused to walk away from its budget task. The reversal of the savings measures has been offset by new budget repair measures with the underlying cash balance returning to balance in 2020–21.

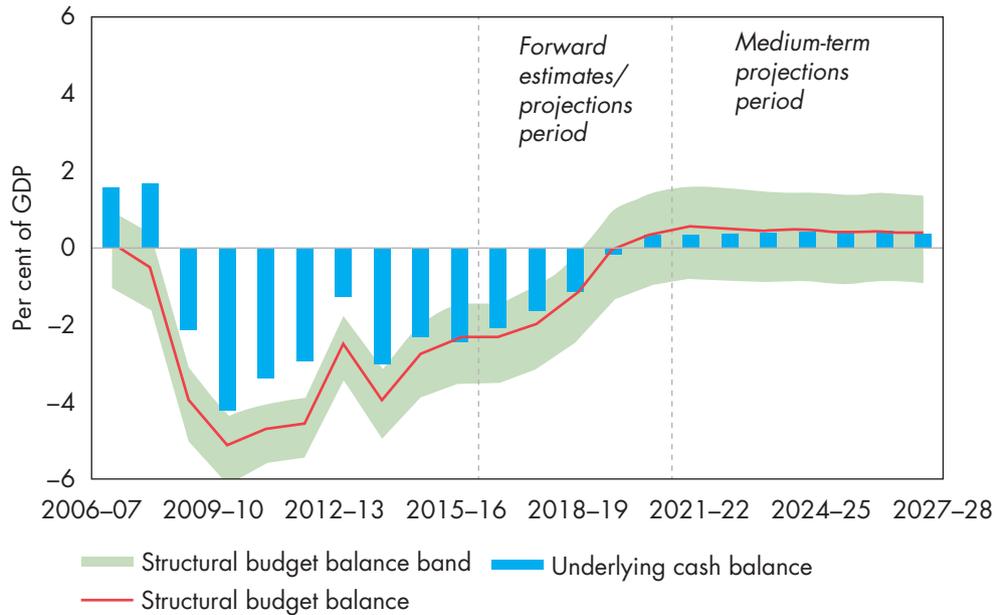
Source: Budget 2017–18 © Commonwealth of Australia 2018. CC BY 3.0 Australia (<https://creativecommons.org/licenses/by/3.0/au/>)

FIGURE 8.11 Commonwealth Government Budget outcomes

Year	Revenue (\$bn)	% of GDP	Expenses (\$bn)	% of GDP	Net capital investment (\$bn)	Underlying cash balance (\$bn)	Fiscal balance (\$bn)	% of GDP	Net future fund earnings (\$bn)
2006–07	278.3	26.6	259.1	24.8	2.3	17.2	16.8	1.6	2.1
2007–08	303.8	26.9	280.6	24.9	2.8	16.8	20.4	1.8	3.7
2008–09	298.9	23.7	324.6	25.8	4.1	-27.1	-27.1	-2.2	3.6
2009–10	292.8	22.8	339.2	26.4	6.4	-54.8	-52.9	-4.1	2.5
2010–11	309.9	22.1	356.1	25.4	5.3	-47.7	-51.5	-3.7	3.7
2011–12	338.1	22.9	377.7	25.6	4.9	-43.4	-44.5	-3.0	2.2
2012–13	360.2	23.6	382.6	25.1	1.0	-19.4	-23.5	-1.5	2.7
2013–14	377.3	23.6	415.3	26.2	4.0	-18.8	-45.1	-2.6	2.3
2014–15	380.7	23.7	417.9	25.4	2.7	-24.0	-39.9	-2.5	4.1
2015–16	395.1	23.9	428.7	25.9	3.8	-39.6	-37.5	-2.3	3.2
2016–17	412.1	23.5	450.8	25.7	2.0	-37.6	-40.7	-2.3	2.8
2017–18	444.4*	24.4*	464.3*	25.5*	0.5*	-29.4*	-20.3*	-1.1*	3.2*
2018–19	476.1*	25.2*	486.9*	25.7*	4.8*	-21.4*	-15.5*	-0.8*	3.5*

Sources: Budget Paper No.1 for 2006–07 – 2017–18 Commonwealth Budgets. CC BY 3.0 Australia (<https://creativecommons.org/licenses/by/3.0/au/>)

*Estimates



Source: Budget Paper No.1 Statement 3, page 20. © Commonwealth of Australia 2018. CC BY 3.0 Australia (<https://creativecommons.org/licenses/by/3.0/au/>)

FIGURE 8.12 Structural budget balance

QUESTIONS

- 1 Compare the fiscal balance of a budget with 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 Summarise the explanation Treasurer Scott Morrison gives in the 2017-18 budget overview for the size of the predicted budget deficit in that year. Discuss and critically evaluate this explanation.
- 6 Was the return to a budget surplus in 2020-21, predicted in the 2017-18 budget, based on an increase in government revenues, a decrease in government spending or both? Explain your reasoning.

8.4.4 Budget impacts: fiscal stance

We need to look beyond the budget outcome to determine the fiscal policy stance. 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 known 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.

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 8.13.

FIGURE 8.13 Reconciliation of net operating balance estimates

	Estimates			Projections		
	2016–17 \$m	2017–18 \$m	2018–19 \$m	2019–20 \$m	2020–21 \$m	Total(a) \$m
2016–17 budget net operating balance	-33 691	-15 287	-4 954	3 458	*	*
Per cent of GDP	-2.0	-0.8	-0.3	0.2		
Changes from 2016–17 budget to 2016 PEFO						
Effect of policy decisions (b)	-1	1	3	6	*	*
Effect of parameter and other variations	0	0	0	0	*	*
Total variations	-1	1	3	6	*	*
2016 PEFO net operating balance	-33 693	-15 287	-4 951	3 464	*	*
Per cent of GDP	-2.0	-0.8	-0.3	0.2		
Changes from 2016 PEFO to 2016–17 MYEFO						
Effect of policy decisions (b)	521	1 268	1 233	1 374	*	*
Effect of parameter and other variations	-4 359	-5 141	-6 853	-6 114	*	*
Total variations	-3 837	-3 873	-5 620	-4 741	*	*

	Estimates			Projections		
	2016–17 \$m	2017–18 \$m	2018–19 \$m	2019–20 \$m	2020–21 \$m	Total(a) \$m
2016–17 MYEFO net operating balance	-37 530	-19 159	-10 571	-1 276	*	*
Per cent of GDP	-2.1	-1.1	-0.6	-0.1		
Changes from 2016–17 MYEFO to 2017–18 budget						
Effect of policy decisions (b) (c)						
Revenue	0	2 840	3 238	7 680	9 279	23 037
Expenses	1 775	5 004	5 155	3 754	1 783	15 696
Total policy decisions impact on net operating balance	-1 775	-2 163	-1 918	3 926	7 496	7 341
Effect of parameter and other variations (c)						
Revenue	979	351	-201	440	*	*
Expenses	340	-1 124	-1 924	-4 531	*	*
Total parameter and other variations impact on net operating balance	639	1 475	1 724	4 972	*	*
2017–18 budget net operating balance	-38 666	-19 848	-10 765	7 622	17 471	-5 520
Per cent of GDP	-2.2	-1.1	-0.6	0.4	0.8	
<i>Net capital investment</i>						
Effect of net capital investment (d)	2 047	484	4 770	4 892	6 037	16 183
2017–18 budget fiscal balance	-40 713	-20 331	-15 535	2 729	11 434	-21 703
Per cent of GDP	-2.3	-1.1	-0.8	0.1	0.6	

Source: Budget Paper No.1 Statement 3, page 34. © Commonwealth of Australia 2018. CC BY 3.0 Australia (<https://creativecommons.org/licenses/by/3.0/au/>)

*Data is not available

(a) Total is equal to the sum of amounts from 2017–18.

(b) Excludes secondary impacts on public debt interest of policy decisions and offsets from the Contingency Reserve for decisions taken.

(c) A positive number for revenue improves the net operating balance, while a positive number for expenses worsens the net operating balance.

(d) A positive number for net capital investment worsens the fiscal balance.

Note:

- PEFO is the Pre-Election Fiscal Outlook and MYEO is the Mid-Year Economic Outlook.
- In a non-election year the data is simpler. The relevant figures will be changes from the previous budget to the MYEO and from the MYEO to the current budget.

Figure 8.13 shows that the 2016–17 budget had a stimulatory effect on the Australian economy with a fiscal deficit of \$40 713 million and a net balance of \$–33 691 million. The table in Figure 8.14 extracts the key details used to determine whether this was a result of government initiating structural change (discretionary fiscal policy) or due to cyclical factors affecting the levels of revenue and expenditure (non-discretionary fiscal policy).

FIGURE 8.14 Identifying the fiscal stance detailed in Figure 8.13

	Changes from 2016 PEFO to 2016–17 MYEO (\$m)	Changes from 2016–17 MYEO to 2017–18 budget (\$m)	Total change from previous budget estimate (\$m)
Effect of policy decisions (structural components)	521	–1775	–1254
Effect of changes in parameters (cyclical component)	–4359	639	–3720

The data indicates that the 2016–17 budget had a stimulatory fiscal policy stance that was partly discretionary, but largely due to cyclical factors outside of direct government control.

8.4.5 Fiscal stance in recent budgets

In the decade to the end of 2007, fiscal policy played a secondary role to monetary policy in macroeconomic management. Through its implementation of monetary policy, the RBA assumed the major role in influencing the level of aggregate demand to achieve the key objectives of economic growth, price stability, full employment and external viability. The budget focused on minimising public borrowing, increasing spending in areas prioritised by the government of the day, and cutting taxes.

The fiscal policy stance was largely contractionary, with the Howard Government committed to achieving a balanced budget over the course of the economic cycle. Restrained spending and a cyclical rise in revenue resulted in a run of surplus budgets.

As the global economy slowed in 2001, the cash balance went into deficit, as a more expansionary fiscal policy stance was adopted to boost growth in the Australian economy. Automatic stabilisers supported the level of aggregate demand, through increased numbers of unemployed workers claiming benefits and reduced income tax payments. The start of the resources boom, causing strong economic growth from 2003, delivered a cyclical increase in taxation revenue. This returned the budget to surplus, despite discretionary policies to increase spending and cut taxes.

The budget tabled in parliament in 2008 took an essentially neutral stance. The underlying cash balance, the best indicator of a budget's short-term impact, was estimated to be a surplus of around 2 per cent of GDP. Government spending was planned to rise by only 1.2 per cent of GDP. This restraint on spending (in real terms) was to be offset by income tax cuts, paid for by a boost in company tax revenue resulting from Australia's biggest modern mining boom.

The sudden onset of the GFC in 2008 demonstrated the extent to which cyclical factors can upset discretionary fiscal planning. The effect of the GFC overwhelmed the government's neutral fiscal policy stance in late 2008 and 2009. There was a major downturn in the

Australian economy, although it was shielded from the severe impacts experienced by most global economies by resilience in many of Australia's main commodity export markets. The underlying cash balance fell dramatically from a surplus of \$16.8 billion in 2007–08 to a deficit of \$54.8 billion in 2009–10. This was due to a fall in revenue and a major increase in discretionary government expenditure to support aggregate demand and employment.

To counter this cyclical economic shock, fiscal policy (both discretionary and non-discretionary) rapidly reassumed its traditional role as the primary counter-cyclical macroeconomic policy tool. The Rudd Government quickly adjusted its 2008–09 budget to an expansionary fiscal policy stance and continued this in the 2009–10 budget.

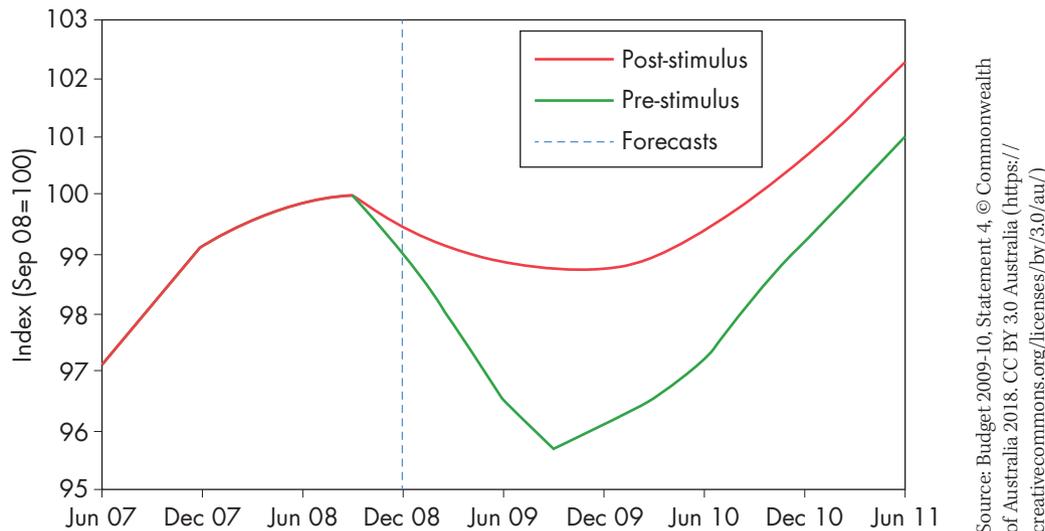


FIGURE 8.15 The effect of fiscal stimulus on real GDP

The period from 2010–11 to 2017–18 produced mildly stimulatory fiscal stances due to a mixture of cyclical and structural factors. The stated fiscal strategy of the Australian Government centred on attempts to return the budget to surplus by reducing the growth of spending and increasing revenues, with revenue redirected towards a reduction of net debt. This apparent tightening of fiscal policy suggested a contractionary stance designed to produce structural change, but these budgets returned larger deficits than planned and the net debt continued to grow. The Commonwealth consistently failed to raise the predicted revenue, and government spending was higher than budget estimates. Expensive programs in the areas of education funding (Gonski), the national broadband network (NBN), the National Disability Insurance Scheme program, anti-terrorism initiatives and military expenses in Afghanistan and Iraq/Syria were not matched by savings in other areas of government. Governments during this period did not control a majority in the Senate, where cross-benchers held the balance of power. Key revenue bills designed to reduce government spending were blocked. Economic growth rates consistently fell below the predictions on which budget forecasts were based, as world economic growth became stagnant and the mining boom faded. Low wages growth and inflation also reduced government revenue. In the 2016–17 Budget Outlook, the government acknowledged the vulnerability of the trade-focused Australian economy to cyclical factors, with the potential to reduce future revenue to the Australian Treasury, noting the ‘risk that the low inflation, low wage growth and low productivity growth being experienced in many advanced economies could become embedded in lower potential growth over time’ (Budget 2016-17, Statement 2: Economic Outlook. © Commonwealth of Australia 2018. CC BY 3.0 Australia (<https://creativecommons.org/licenses/by/3.0/au/>)).



Commonwealth Budgets

Australian Parliamentary
Library – Debt position

Trading Economics

Australian Debt Clock

ECONOMICS DATA



Using online sources, conduct research to update Figures 8.10 and 8.11 to include the details of recent economic growth and Commonwealth budgets, including the budget for the current financial year. Follow the link to access the current and previous years' budgets. You will need to access 'Budget Paper No. 1' for each budget.

- 1 Use this updated data to identify and briefly describe:
 - a changes in the economic cycle since 2017
 - b changes in revenue and expenditure as a percentage of GDP since 2017
 - c the relationship that appears to exist between the two indicators of budget outcome: the underlying cash balance and the cyclically adjusted budget balance.
- 2 Evaluate the accuracy of the 2017–18 budget estimates and forward projections, highlighting any significant differences in revenue, expenditure and budget bottom lines.
- 3 Construct a line graph to show government revenue, expenditure and the underlying cash balance for the years 2006–07, 2009–10, 2012–13, 2015–16, 2018–19 and the current budget estimates.
 - a Describe the trends indicated in each of the budget measures shown in your graph.
 - b Analyse the economic cycle and the underlying cash balance data since 2016–17 to determine what the fiscal policy stances have been in recent years.
 - c Discuss with your teacher and/or class the causes and likely effects of the fiscal stances determined above.
- 4 Investigate the size of debt this century, collecting data that notes changes in the level of:
 - household debt
 - government debt
 - net debt.
 - a Briefly describe the trends in each of these indicators of debt levels.
 - b Who is responsible for the repayment and servicing of each of the debts documented here?
 - c Which of the three sources of information should cause the greatest concern for Australian economic decision makers? Justify your choice.

8.4.6 Other effects of fiscal policy

KEY IDEA

Fiscal policy affects the economy in both the short- and long-term, and has impacts on the achievement of the full range of government economic objectives.

Our focus has been on counter-cyclical 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 10.

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, disabled, aged, families or recent immigrants can have a major effect on the disposable income available to these groups of people.

Changes in the taxation system and government spending decisions can influence how Australia's productive resources are allocated between different types of production. Some important examples include the following:

- The introduction of the GST in 2001–02 and the abolition of wholesale sales tax removed the distortions caused by services being untaxed, despite services representing more than 75 per cent of GDP.
- Population growth was encouraged by the introduction of the Baby Bonus in the Howard Government's 2002–03 budget.
- Increasing private savings was encouraged by changes to the level of compulsory superannuation and the taxation of superannuation in the 2002–03, 2004–05, 2006–07 and 2013–14 budgets.
- Increasing workforce participation has been a goal explicitly addressed in most recent budgets, but especially in the 2008–09 decision to increase the childcare tax rebate from 30 to 50 per cent and the Paid Parental Leave Scheme in the 2009–10 budget.
- Small businesses were offered tax relief measures in three consecutive budgets from the 2015–16 budget.
- Clean energy production and climate change action were encouraged by elements of the 2008–09 and 2010–11 budgets and have been allocated funding in each budget since 2015.

8.5 The effectiveness of fiscal policy

CONCEPTS



Inflationary 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





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

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

Time lag: the period from the time a macroeconomic problem is recognised to the time policy action is taken and has effect

KEY IDEA

There are some key factors that limit the effectiveness of fiscal policy as a tool for managing the economy to achieve government economic objectives.

Previous sections of this chapter have raised questions about the impacts of deficit financing and crowding out on the effectiveness of fiscal policy. The **time lags** involved in determining policy settings, implementing them and waiting for their effects to flow through the economy are an additional, inescapable limitation of the use of macroeconomic policy. The use of fiscal policy is also constrained by the need to balance competing economic objectives, the autonomous nature of much economic decision making, and the role of consumer and investor sentiment in those decisions, global influences and **political constraints**.

8.5.1 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. 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 Organisation for Economic Co-operation and Development (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, and some are examined by multi-party parliamentary committees. All proposals will be closely scrutinised by all affected government departments before being introduced for parliament to debate and vote on.

Despite these issues, the Rudd Government responded quickly to the onset of the GFC in 2008 with substantial fiscal stimulus. The nature and scope of its response was later criticised for poor planning and implementation.

- 4 **Autonomous expenditure lag** is the time it takes for a fiscal policy measure to cause changes in the components of aggregate demand ($C + I + G + M$). Changes in expenditure have a direct and relatively immediate effect, but adjustments to both direct and indirect taxes take longer to flow through the economy.
- 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 8.16. 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.

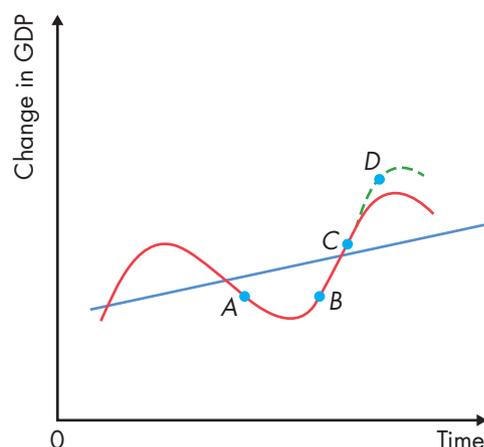


FIGURE 8.16 Time lags as a source of economic instability

Some economists, especially monetarists, argue that the existence of 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 is that discretionary fiscal stimulus is necessary to prevent strong cyclical downturns in spending from turning into depressions. 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 did, however, believe in balancing budgets across the course of an economic cycle, so during boom and inflationary periods he argued for surplus budgets.

He 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 Keynes 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.

8.5.2 The relationship between inflation and unemployment

The relationship between inflation and unemployment is not necessarily straightforward, but the nature of this relationship has important implications for effective counter-cyclical 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.

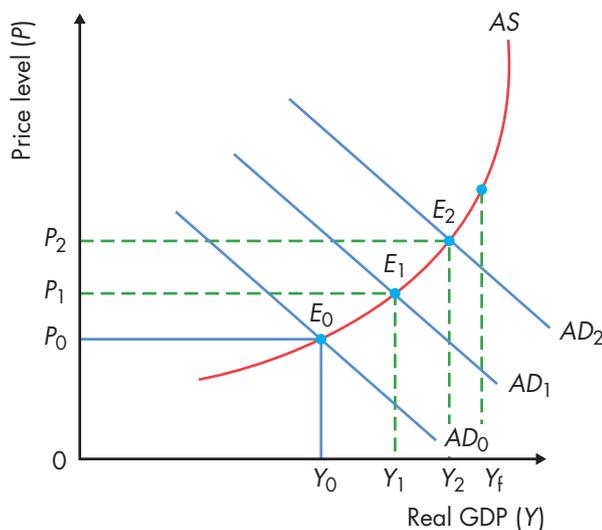


FIGURE 8.17 Employment and price effects of increasing aggregate demand

The graph in Figure 8.17 shows that increases in *AD* cause GDP to rise, which should cause 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*, but must accept a higher rate of inflation, as a trade-off.

If the **Phillips curve** relationship exists, as shown in Figure 8.18, then policy makers may choose a desired inflation–unemployment combination.

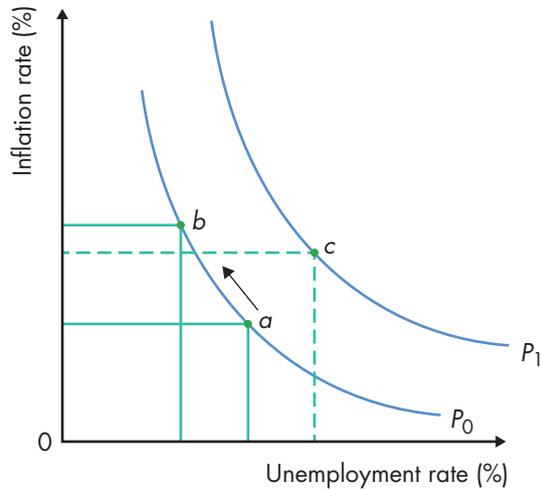


FIGURE 8.18 The Phillips curve

Demand-pull and cost-push theories of inflation and unemployment can be represented by the Phillips curve. An increasing *AD*, as in Figure 8.18, can be represented by a movement along the Phillips curve (*a* to *b*).

Stagflation emerged in the Australian economy in the 1970s. The economy began a period 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 .

Stagflation and shifting Phillips curves raise doubt as to whether a stable, trade-off relationship really exists between inflation and unemployment. The experience of record low levels of inflation and near full employment in Australia in the post-GFC era also raises questions about the existence of a trade-off. 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, including the monetarists, 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. 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 **inflationary expectations**.

8.5.3 Inflationary 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.

Inflationary 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.

8.5.4 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.

8.5.5 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 GFC amply demonstrated the impacts this can have on budget outcomes and fiscal policy stances. Economic 'shocks' originating in the USA 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.

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.

8.5.6 Political constraints

A political party must tailor its policies to win enough votes to form a Federal Government. This may mean sacrificing elements of an 'ideal' fiscal policy stance or structural details to the whims of popular sentiment. This is an important constraint 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.

In the decade following the GFC, governments have lacked the political capital to deliver the fiscal policies they might wish, or are indicated by the state of the economic cycle. 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. Any plans to increase taxes or cut spending attracts opposition, especially from those segments of population who would be negatively affected. This makes it much more difficult for governments to apply a contractionary fiscal 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.

QUESTIONS

- 1 What determines a budget's impact on the economy?
- 2 Use the following terms to create 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** Use the information about the fiscal stance in recent budgets (see Sections 8.4.2–8.4.4) to create a table summarising recent budget outcomes and fiscal policy stances. You might choose to update this to the current budget year using Internet sources. Your table should cover the following headings:
 - time period
 - budget outcome
 - fiscal stance
 - type of fiscal policy (choose between discretionary, non-discretionary or both).
 - 5** List the main:
 - a** limitations of fiscal policy as a macroeconomic management tool
 - b** strengths of fiscal policy as a macroeconomic management tool.
 - 6** In extended responses (250–300 words):
 - a** Explain the monetarist theory that inflationary 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** Discuss the main limitations global influences have had on the effectiveness of Australian fiscal policy in the past three years.
 - c** Discuss the major political considerations limiting the effectiveness of fiscal policy in the past three years.

8.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 Indirect taxes, including the GST, raise more revenue for the Commonwealth than direct taxes on individuals and businesses.
- 2 In a progressive tax system, the percentage of tax payable increases as income rises.
- 3 In a regressive tax system, the percentage of tax payable remains constant as income rises.
- 4 Transfer payments are cash welfare payments from government to individuals and households.
- 5 A budget's impact on the economy is determined by changes in the relative sizes of expenditure and revenue.
- 6 'Budget outcome' refers to the intended effect of the budget on the level of economic activity in the economy.
- 7 In the decade to the end of 2007, monetary policy played a secondary role to fiscal policy in macroeconomic management.
- 8 The last Commonwealth budget surplus was in 2007–08.
- 9 A Commonwealth Budget, MYEFO and PEFO are released every financial year.
- 10 Information from bodies such as the World Bank, the International Monetary Fund, the OECD and the World Economic Forum help governments to overcome the decision-making time lag involved in the use of fiscal policy.

8.2 Terminology

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

- | | |
|--------------------------------|---|
| A Budget | F Budget deficit |
| B Fiscal policy | G Cyclical components of fiscal policy |
| C Indirect tax | H Discretionary fiscal policy |
| D Progressive tax | I Fiscal policy stances |
| E Automatic stabilisers | J Inflationary expectations |

- 1 Deliberate changes to fiscal policy instruments to influence the level of aggregate demand; also referred to as 'structural components of the budget'
- 2 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
- 3 A tax system in which the percentage of tax payable increases as income rises
- 4 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
- 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 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)
- 9 A negative budget balance; when receipts fall short of expenditures
- 10 The overall effect of a budget on the level of economic activity in an economy

8.3 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 Keynes, 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
- 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 the GFC 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.

8.4 Short response questions

- 1 What are 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 Write a sentence summarising the difference between a non-discretionary and a discretionary fiscal policy. Use the terms 'cyclical' and '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

Review of Chapter 8

- 7 The fiscal balance is derived by subtracting total government expenses and net capital investment from total Commonwealth revenue. Explain the meaning of these three components of the fiscal balance and give at least two significant examples of each.
- 8 Explain exactly how we can determine whether a government is deliberately conducting expansionary or contractionary fiscal policy.

8.5 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 Research the 2010 final report of the government's *Henry Review – Australia's Future Tax System* and the 2015 Tax White Paper.
 - a What were their main recommendations and their purpose?
 - b Which of these recommendations have been adopted?
 - c What other significant reforms of the Commonwealth taxation system have been made?
 - d Evaluate the success of Australian governments since 2010 in improving the tax system.



Henry Review -
final report
2015 Tax White Paper

- 3 Investigate the current Commonwealth Budget:
 - Note the key initiatives contained in it.
 - Identify the structural and cyclical factors at work.
 - Discern the intended fiscal 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.
- 4 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?

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 8
answers



Getty Images/Hiroshi Watanabe

9

Economic management: monetary policy

The Australian Government implements monetary policy to stabilise to the level of demand in the economy and help promote its economic objectives.

Focus questions and inquiries

- What is monetary policy?
- What are the objectives of monetary policy?
- How does monetary policy influence the level of economic activity?
- What are the strengths of monetary policy and the key limitations to its effectiveness?
- What domestic and global economic conditions have caused recent monetary policy stances?
- What effects have recent monetary policy actions had?
- How effective has the implementation of monetary policy been in achieving the Federal Government's economic objectives?

To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:

- the role of 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

9.1 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

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

KEY IDEA

Monetary policy is a macroeconomic policy conducted by the Reserve Bank of Australia, to smooth out fluctuations in the economic cycle and counter their economic effects, with the goal of promoting the government's economic objectives, especially price stability.

JOHN MAYNARD KEYNES

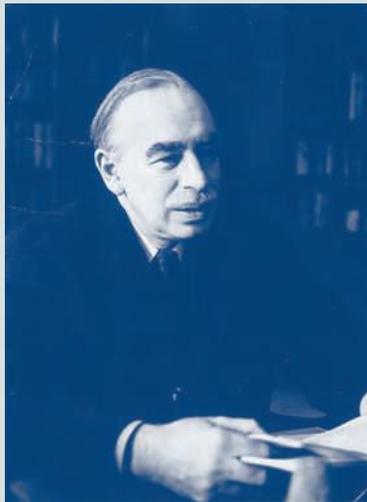


FIGURE 9.1 John Maynard Keynes (1883–1946)

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 level of consumption and investment as the key elements of aggregate demand and unemployment (or the threat of it) in 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. A more detailed explanation of Keynesian theories can be found on NelsonNet.



Keynesian theories

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.

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 on average over the business cycle’ (© Reserve Bank of Australia, 2001–2018. All rights reserved).

The RBA’s charter does not give it the power to directly regulate the level of market interest rates, but its manipulation of the money supply to achieve its cash-rate target does influence market rates in a direction that helps achieve the Federal Government’s macroeconomic objectives. To expand economic activity, it 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. There will be an increase in aggregate demand, stimulating the level of 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.

9.1.1 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.

According to the RBA’s website:

Its duty is to contribute to the stability of the currency, full employment, and the economic prosperity and welfare of the Australian people. It does this by setting the cash rate to meet an agreed medium-term inflation target, working to maintain a strong financial system and efficient payments system, and issuing the nation’s banknotes.

Source: © Reserve Bank of Australia, 2001–2018. All rights reserved.

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 their key economic objectives.

9.1.2 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. This independence is vital for its effectiveness. It increases the confidence of the local and overseas business sectors and consumers that its decisions will be based on expert analysis of economic

considerations, regardless of their likely impacts on public opinion and the public standing of the government of the day.

The RBA is required by the Act to consult with the government. In December 2007, a new *Statement on the Conduct of Monetary Policy* was jointly issued by the Treasurer and the Governor of the RBA, which reinforced the policy objectives of the RBA and incorporated 'substantive amendments relating to the independence of the Reserve Bank and covering practices regarding transparency and communication' (© Reserve Bank of Australia, 2001–2018. All rights reserved). The Public Governance, Performance and Accountability Act 2013 requires the Governor to give the RBA's annual report to the Treasurer, for presentation to the Parliament of Australia. There is also close consultation between the Governor and the Treasurer, helping ensure that fiscal and monetary policy settings are complementary. Further, the Governor reports to the House of Representatives Standing Committee on Economics twice a year to answer questions on the state of the economy and the RBA's conduct of monetary policy.

The RBA employs a large and expert staff, including many economists, to research developments in the Australian and global economies. This includes analysis of 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, including extensive consultation with businesses throughout the country. They collate and analyse these economic indicators and brief the RBA Board in preparation for its decisions about the future course of monetary policy.

The Board meets on the first Tuesday of every month, except in January. The target cash rate and the reasons for this monetary policy setting are announced at 2.30 pm on that day. You can read these 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. The RBA website gives the public access to extensive statistical data, speeches and research papers by the RBA's 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.



Reserve Bank of
Australia

QUESTIONS

- 1 What is the purpose of monetary policy?
- 2 What are the four main duties of the RBA?
- 3 Are the terms 'cash rate' and 'interest rate' interchangeable? Answer in a short response of 50–100 words.
- 4 Why is it important that the RBA is independent?
- 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.



RBA

CBA

NAB

Westpac

ANZ

Suncorp

RACQ

9.2 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, but in 1996 the government formalised maintenance of price stability as the RBA’s key operational objective and set an inflation target.

9.2.1 Inflation target

The RBA is obliged to apply monetary policy to keep inflation at 2–3 per cent, on average, over the medium term – 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 2007 *Statement on the Conduct of Monetary Policy*:

The goals of monetary policy are set out in the Act, which requires the Reserve Bank Board to conduct monetary policy in a way that, in the Reserve Bank Board's opinion, will best contribute to:

- a the stability of the currency of Australia;
- b the maintenance of full employment in Australia; and the economic prosperity and welfare of the people of Australia.

The first two objectives lead to the third, and ultimate, objective of monetary policy and indeed of economic policy as a whole. These objectives allow the Reserve Bank Board to focus on price (currency) stability while taking account of the implications of monetary policy for activity and, therefore, employment in the short term. Price stability is a crucial precondition for sustained growth in economic activity and employment.

Both the Reserve Bank and the Government agree on the importance of low inflation and low inflation expectations. These assist businesses in making sound investment decisions, underpin the creation of jobs, protect the savings of Australians and preserve the value of the currency.

In pursuing the goal of medium-term price stability, both the Reserve Bank and the Government agree on the objective of keeping consumer price inflation between 2 and 3 per cent, on average, over the cycle. This formulation allows for the natural short-run variation in inflation over the cycle while preserving a clearly identifiable performance benchmark over time.

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The use of inflation targeting has become quite common in developed countries, but the target rates vary considerably. Some advantages of inflation targeting:

- 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.

9.2.2 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. While these affect the cost of living, they do not directly reflect the underlying inflationary pressures in the economy.

For monetary policy purposes, there are advantages in focusing on the **underlying rate of inflation**, which removes these volatile items. The RBA formerly used the underlying rate, but improvements in the way that the ABS calculates the CPI have led the RBA to revert to the use of the CPI as its target measure since 1998.

QUESTIONS

- 1 Does an inflation rate of 2.5 per cent require the RBA to act to stimulate the level of economic activity?
- 2 What, according to the RBA, are 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 In 100–250 words, 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 the following economic scenarios and, with a group of classmates, prepare a short presentation for your class:

- 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?

9.3 The implementation of monetary policy

CONCEPTS



Basis point: one basis point 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 Board

Ease monetary policy: to adopt a more expansionary monetary policy stance; this involves lowering the cash rate to stimulate an increase in the level of economic activity

M3: a measure of the money supply that includes currency, plus deposits in banks, credit unions and building societies, plus

funds held by other authorised deposit-taking institutions

Open market operations: 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.

9.3.1 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 the RBA Board expects aggregate demand to exceed aggregate supply, then there is likely to be upwards pressure on the rate of inflation.

The following factors help inform monthly decision 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.

9.3.2 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** (STMM), 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 the monetary policy stance (expansionary) is reflected in a lower target for the cash rate, while a decision to tighten policy (contractionary) is reflected in a higher target.



Cartoon by Nicholson from The Australian
www.nicholsoncartoons.com.au

FIGURE 9.2

9.3.3 Open market operations

The RBA implements its monetary policy by buying or selling government securities to financial institutions to keep the cash rate at the target level set by the RBA Board. This trading is known as **open market operations**.

The RBA undertakes these market operations through exchange settlement accounts (ESAs) in the STMM. This market gives financial institutions access to deposit and lending facilities that allow them to settle debts with each other. They deposit funds by buying short-term government bonds or repurchase agreements, and 'gain' cash by selling these bonds or repurchase agreements back to the government.

The funds that banks hold in their ESAs are very different from other forms of money. They are not notes and coins that can be used for consumer transactions; nor are they like the balances we hold in accounts with a commercial bank. They are balances in deposit accounts with the RBA and can only be transferred to other banks, the RBA or the government.

The supply of cash in the STMM is determined by the RBA. Settlement of debts or borrowings from the other financial institutions in this cash market only change the size of ESA balances; they do not change the supply of cash in the market. The demand for cash is determined by the reserves of cash held in ESAs.

The RBA keeps the cash rate at target by setting the supply of funds in ESAs so that it is consistent with demand. A purchase of securities by the RBA from a commercial bank increases that bank's level of reserve funds, increasing its liquidity and ability to lend. In this case, the RBA has injected funds into the financial system, effectively increasing the supply of money. When it sells a security, it withdraws funds and reduces the money supply.

On days where payments from the RBA and its customers are estimated to be greater than receipts, there will be a cash surplus and ESA balances will increase. The RBA will, almost always, act to offset the liquidity impact of these flows by purchasing (or selling) securities in open market operations.

The STMM provides the most immediate source of liquidity for financial institutions. They may acquire the funds they need by borrowing from other institutions holding ESAs. Banks borrow or lend from each other overnight at the cash rate. The RBA creates an incentive for account holders in the STMM to recycle excess balances within the interbank market by lending them to other institutions. The incentive is that the RBA pays interest on excess balances at a rate that is 25 **basis points** below the cash rate target. This incentive to economise on cash holdings and profit from recycling them needs to be balanced against the cost of running short of cash balances at the end of the day and needing to borrow from the RBA at a penalty rate.

At the end of a trading day, if the financial sector finds itself with a cash deficit, it needs to acquire extra cash; otherwise it cannot continue to lend at previous levels. Banks and other financial institutions cannot create cash reserves to meet a cash deficit. Only the RBA can create the extra cash needed. The cash deficit will become evident as financial intermediaries begin to withdraw their funds from the STMM. In response, the STMM will seek to sell government securities back to the RBA.

If the RBA wished to **tighten monetary policy**, it would buy fewer securities, thus providing less cash than the financial markets need to finance the cash deficit from the day's trading. The RBA may buy back from the STMM the amount of securities needed to settle the cash deficit, but at a reduced price. The STMM is (effectively) being charged a higher interest rate for borrowing cash off the RBA (called the cash rate). Financial institutions would then need to reduce lending, or acquire extra cash from the RBA at this higher interest rate. In effect,

this means the RBA is increasing the interest rate at which it is making cash available to the financial sector and the community.

To **ease monetary policy**, the RBA would buy more securities than are necessary to offset the cash deficit in ESAs, creating the opposite effect on availability of money and market interest rates.

A more detailed explanation of this process, including the impacts of payments from the Federal Government, which is the RBA's largest customer, can be found in a speech delivered by Guy Debelle, Assistant RBA Governor, to the Debt Markets 2008 Summit. Follow the link to view the speech. It also describes the RBA's intervention in the money market in response to the onset of the Global Financial Crisis (GFC).



Guy Debelle's
speech to the Debt
Markets 2008 Summit

You may have heard of the term 'quantitative easing'. Quantitative easing involves printing money to finance large-scale asset purchases by a central bank. The bank buys predetermined amounts of government bonds or other financial assets to stimulate the economy. This 'unconventional' use of monetary policy was employed by the USA, the European Union and China to stimulate spending in their economies following the GFC. The USA began to 'pull back on' the size of asset purchases, as economic growth began to recover in 2017. In February 2018, this left the US Federal Reserve with an estimated US\$4 trillion of debt. As economic activity recovers, central banks begin to sell bonds, drawing liquidity out of their economies, and reducing the supply of money at a time when demand for it is growing. This creates upward pressure on the cost of credit, fuelling inflation and raising the cost for businesses investing in the capital goods needed to expand production to meet the increasing demand that accompanies the expansion phase of the economic cycle. The aftermath of this period of quantitative easing has not yet become clear.

9.3.4 Monetary targeting

The RBA can also influence the availability and cost of money in the Australian economy by monetary targeting. In this method of monetary policy implementation, the RBA uses its control over the money base to achieve a publicly stated level of money supply (as measured by the M3). The money base is the total currency in the hands of the public, and deposits of banks and other financial institutions with the RBA. This method was used from the mid-1970s to 1984, when the financial system was more regulated by government. It did not prove very successful and targets were rarely met. The banks moved money to other financial institutions, which were often their subsidiaries, but not under RBA regulation. This practice distorted money supply figures.

QUESTIONS

- 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 Compare altering the level of the cash rate with monetary targeting.



-
- 5 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
 - e the RBA buying government securities in the STMM at a reduced price
 - 6 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?
 - 7 Briefly explain the difference between the cash rate and market interest rates.
 - 8 Why will the interest rates at which banks lend to consumers and businesses always be higher than the cash rate?
 - 9 What is the effect on the money supply and the interest rates of a tight monetary policy?

9.4 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

Inflationary 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: how changes to monetary policy affect the interest rates that households and businesses face, and flow through to economic activity, employment and inflation

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.

The impacts of changes in the cash rate are initially restricted to short-term interest rates, but flow through to medium- and long-term interest 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 **inflationary 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.

9.4.1 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. As a result, the cash rate and other interest rates have moved in broadly similar ways since at least the early 1990s:

↓ cash rate → ↓ interest rates

↑ cash rate → ↑ interest rates

The process by which a change to the cash rate in the STMM 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 to investment. Interest rates are also influenced by conditions and the extent of competition in financial markets, and the level of risk associated with different types of loans. This creates variation in the extent to which cash rate changes are passed on. According to Atkin and Cheung (2017), 'a reassessment of the level of risk in financial markets since the GFC and greater competition among banks for funding has led banks to increase their lending rates while the cash rate remained unchanged' (Atkin T and B Cheung (2017), How Have Australian Banks Responded to Tighter Capital and Liquidity Requirements? RBA Bulletin, June: pp. 41–50).

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 (Atkin & La Cava, 2017). 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 (Atkin & La Cava, 2017).

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.



News Ltd/Newspix/The Advertiser

Source: Commonwealth Bank of Australia, Home Loan interest rates August 2018

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	5.22%	5.36%
1 Year Fixed Rate	1 Year Fixed Rate	4.04%	5.25%
2 Year Fixed Rate	2 Year Fixed Rate	3.94%	5.12%
3 Year Fixed Rate	3 Year Fixed Rate	4.04%	5.05%
4 Year Fixed Rate	4 Year Fixed Rate	4.34%	5.06%
5 Year Fixed Rate	5 Year Fixed Rate	4.54%	5.08%

FIGURE 9.3 Variable-rate loans account for around four-fifths of housing loans; such loans respond very quickly to changes in the cash rate.

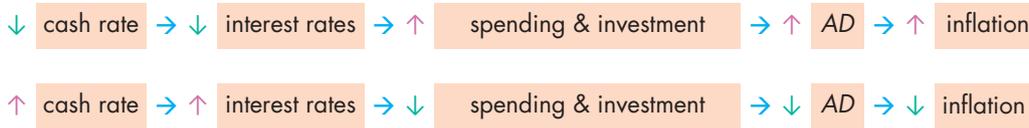


FIGURE 9.4 Transmission mechanism – savings and investments channel

Any change in interest rates changes the incentives for households to save or consume and businesses to invest. 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.

This channel is known 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 in the decade from 2010 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.

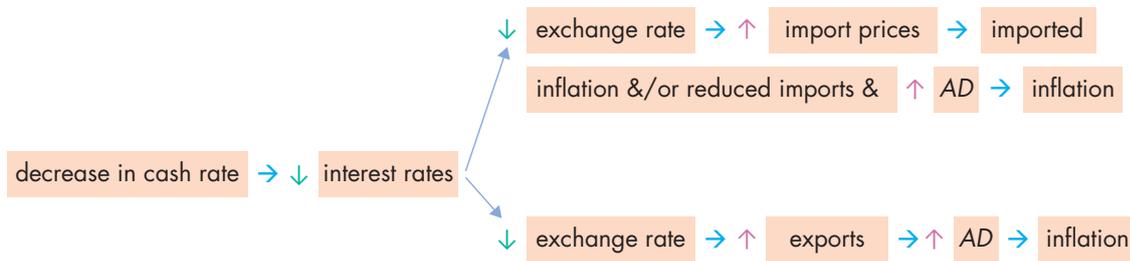


FIGURE 9.5 Transmission mechanism – exchange-rate channel

An increase or decrease in interest rates changes the competitiveness of investment in Australian assets compared to economies with lower or higher interest rates. 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*).

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

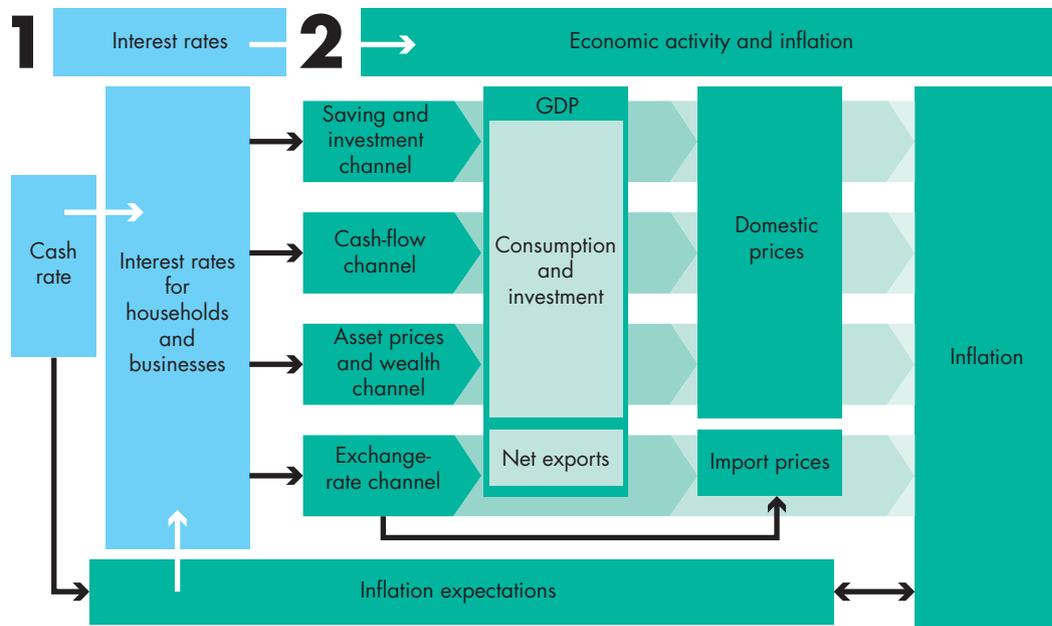


Activities

- 1 Individually or with the input of a group of classmates, 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 an extended 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.



Source: © Reserve Bank of Australia, 2001–2018. All rights reserved.

FIGURE 9.6 Transmission mechanism – multi-channel

QUESTIONS

- 1 Name the four main channels of monetary policy transmission.
- 2 How is wealth different from income?
- 3 What are inflationary expectations, how are they formed and why are they important to the effectiveness of monetary policy?
- 4 Draw transmission mechanisms (\uparrow cash rate \rightarrow ... \rightarrow ...) 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 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.

9.5 The current monetary policy stance

KEY IDEA

The monetary policy stance taken by the RBA Board may be expansionary, neutral or contractionary.



FIGURE 9.7

Al Nisbet cartoon, Stuff/The Press

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 be intended to expand activity, cause it to contract, or leave it at approximately the current level (a neutral stance).

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.

While the media, business and financial sectors focus on any change in the cash-rate, it is also important to understand how far the cash rate is from the neutral rate. Target rates in the 2.5–1.5 per cent range set between August 2013 and 2018 clearly indicate an expansionary stance, while 17–5.25 per cent in the period between January 1990 and July 1993 were contractionary. However, it is sometimes difficult to decide if the current cash-rate setting is neutral. The effects of any cash-rate setting take some time to transmit through the economy and the size is difficult to predict. The size of the effects will depend on factors such as whether financial markets expected the change and what expectations are held about future interest rates. Inflation expectations also affect the current behaviour of consumers and firms, and therefore the transmission of monetary policy. Higher expectations for inflation can lead to higher actual inflation. So that higher expected inflation does not lead to ever-higher actual inflation, it is important for the RBA to have a credible monetary policy framework to increase the confidence of households and businesses in making saving, spending and investment decisions, by reducing uncertainty. This helps anchor inflation expectations. Atkin and La Cava, in ‘The Transmission of Monetary Policy: How Does It Work?’ (2017), state:

Some estimates from work at the Reserve Bank suggest that lowering the cash rate by 100 basis points leads to economic activity, as measured by GDP, being $\frac{1}{2}$ to $\frac{3}{4}$ percentage point higher than it otherwise would be over the course of two years. Inflation typically rises by a bit less than $\frac{1}{4}$ percentage point per year over two to three years. More generally, estimates suggest that it takes between one and two years for changes in the cash rate to have their maximum effect on economic activity and inflation.

Source: Atkin T. and La Cava G. The Transmission of Monetary Policy: How Does It Work? RBA Bulletin September 2017.

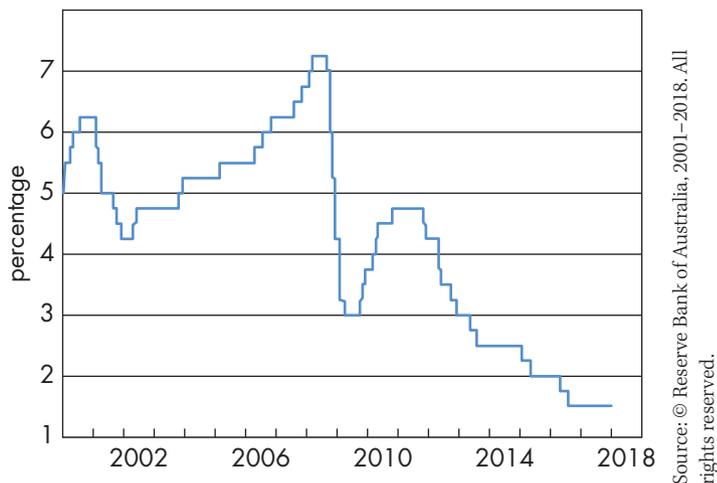


FIGURE 9.8 Australian cash-rate settings since 2000



RBA Chart Pack
RBA media releases

ECONOMICS DATA ○ ○ ○ ○

- 1 Use the RBA website to investigate cash-rate settings since February 2018 (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. The necessary weblinks are provided on NelsonNet.
- 2 Record the cash-rate target for each month since February 2018 in a table. (Remember that there are no meetings of the RBA Board in January.)

ECONOMICS AND ICT - ○ ○ ○ ○

- 1 Use a suitable program to construct your own line graph, in the style of Figure 9.8, to show the cash rates from 2000 until the present.
- 2 Draw lines of best fit on your graph to highlight the main trends in the level of the cash rate over this period.
- 3 Decide what were the main trends in this period and write them in a table using the following headings:

Time period	Trend (increasing/decreasing/stable)	Range of cash rate	Fiscal stance

ECONOMICS CHALLENGE ○ ○ ○ ○

Activities



RBA media releases

- 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. The necessary weblink is provided on NelsonNet.
 - 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*. The necessary weblink is provided on NelsonNet.



RBA 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’?

Do not include the quotations you use in your estimation of word count.

9.6 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 the policy measure to have its effect on the targeted economic variables and the level of economic activity

KEY IDEA

The effectiveness of monetary policy as an instrument of macroeconomic management is enhanced by the short inside time lags involved with its implementation, but significantly reduced by the long and variable time lag before policy changes are fully transmitted and change the level of economic activity.

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.

9.6.1 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 since the mid-1990s. 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 10. 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.

At the time of writing, the economy was experiencing the longest period of sustained economic growth in its history, while maintaining moderate levels of inflation. The exchange rate has remained strong in comparison to the US dollar and the trade-weighted index since the Asian Financial Crisis of the mid-1990s. Australia was one of a handful of developed economies to ride out the GFC without going into recession, and is in the process of successfully transitioning from the winding down of the mining investment boom that began in the mid-2000s.

While concerns remain about the size and distribution of population growth, environmental degradation and resource depletion, the achievements of the Australian economy suggest that economic policy has been effective. However, the hollowing out of regional economic activity and inequality needs to be acknowledged.

9.6.2 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 significantly affect 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.

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.

An adjustment to the cash rate spreads through the economy via adjustments to interest rates on the financial products used by the household and business sectors. The RBA does not set these market rates, although its actions influence them. Banks and other financial institutions individually determine the pace and degree to which they respond to changes in the cash rate, based on their own commercial considerations. The RBA is only one of the sources of funds for these institutions, and the cost of securing deposits from households and firms and from global money markets are central to its decisions about the size and timing of changes to interest rates. While an increase in the cash rate is usually passed on very quickly, a cut to the cash rate may not result in any immediate change in market rates. The Treasurer or the RBA Governor can make public statements to pressure these private sector decisions, but the managers of financial institutions are generally more sensitive to the interests of their shareholders than appeals to ‘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.

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 8, 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 8.16 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)

Alamy Stock Photo/Chuck Nacke

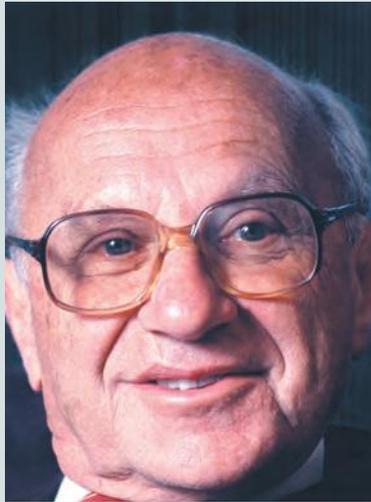


FIGURE 9.9 Milton Friedman

Milton Friedman was a Professor of Economics at the University of Chicago and a leading member of the Chicago School (an unofficial group of economists). 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.

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* (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.

He 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 the USA, China and the euro area about the wisdom of the quantitative easing policies enacted since the GFC.

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, at the same time aiding recovery if a recession started to develop.

More details of Friedman and monetarist theories can be found on NelsonNet.



Milton Friedman and
monetarist theories

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 Chapter 8, 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). This is a greater issue with fiscal 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. In 2017 and 2018 the RBA had to balance a strong Australian dollar, with its advantages for importers, against its negative effects. In his October 2017 *Statement on the Monetary Policy Decision*, RBA Governor Phillip Lowe noted that the appreciating Australian dollar was 'weighing on the outlook for output and employment. An appreciating exchange rate would be expected to result in a slower pick-up in economic activity and inflation than currently forecast' (© Reserve Bank of Australia, 2001–2018. All rights reserved). At a time when the inflation rate remained below the target band and GDP had remained below trend levels for some time, the strength of the Australian dollar was countering the RBA's attempts to stimulate economic

activity with record low levels of the cash rate. As signs of economic recovery emerged in 2018, the RBA was constrained from raising interest rates in order to head off anticipated future inflation by problems in the housing market. There was a strong concern that returning interest rates to more historically normal levels would risk financial hardship and mortgage defaults by highly indebted investors and home owners, sparking a crash in housing prices and an economic downturn via the asset prices and wealth channel.

The need to balance the range of economic objectives of the government presents an enduring challenge to the setting of monetary policy.

9.6.3 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. The efforts of the RBA, since 1993, to make the conduct of monetary policy more transparent and predictable has also reduced the extent to which time lags limit the effectiveness of monetary policy.

Effective and transparent monetary policy

Effective and transparent monetary policy reduces the effect of inflationary expectations. In Section 9.2.1, 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.

Inflationary expectations

Inflationary expectations have been greatly reduced since the RBA adopted inflation targeting in the early 1990s. Inflationary 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 the GFC 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 success in achieving average inflation rates in the target band of 2–3 per cent over most of the period since the mid-1990s has removed the expectation that inflation will move far outside that band. By anchoring private sector inflationary expectations, macroeconomic policy has reduced associated distortions of decision making and increased the effectiveness of Australian monetary policy.

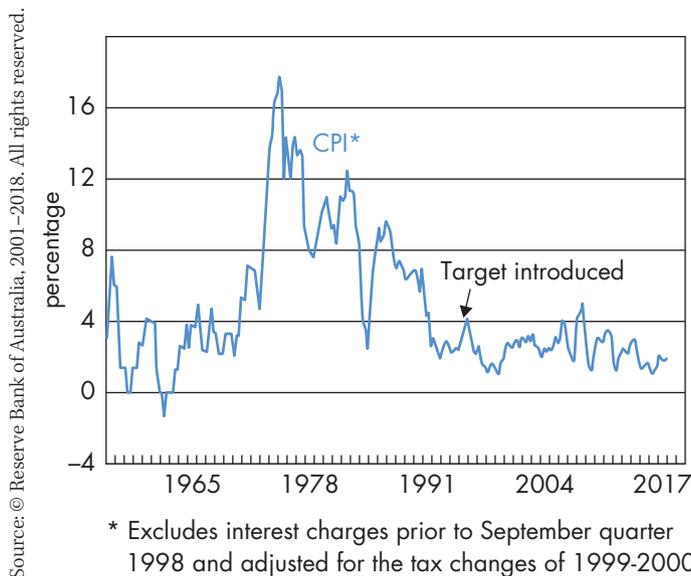


FIGURE 9.10 Inflation over the long run

QUESTIONS

- 1 What is the current cash rate?
- 2 Does this rate indicate a contractionary, neutral or expansionary monetary policy stance?
- 3 Name the three types of inside time lags in monetary policy implementation and distinguish between them.
- 4 What is the key difference between inside and outside time lags?
- 5 Name four aspects of monetary policy that reduce its effectiveness and briefly describe four reasons why it is quite effective.
- 6 Explain in a written response of 50–100 words 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.

9.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 The cash rate and the cash-rate target are different names for the same thing.
- 2 Monetary policy is an instrument of economic policy.
- 3 The cash rate is a monetary policy tool.
- 4 The RBA Board meets to make monetary policy decisions 12 times per year.
- 5 A decrease in the cash-rate target is an appropriate response in a recession.
- 6 An expansionary monetary policy stance aims to increase the level of economic activity in the Australian economy.
- 7 An expansionary fiscal stance would cause interest rates to fall.
- 8 Monetary policy has a greater time lag than fiscal policy decisions.
- 9 Monetary policy is an instrument for demand management, whereas fiscal policy is more effective in managing supply.
- 10 Wealth is a stock and income is a flow.

9.2 Terminology

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

- | | | |
|---------------------------------|---------------------------------|------------------------------------|
| A Cash rate | D Basis points | G Tighten monetary policy |
| B Monetary policy | E Cash-rate target | H Transmission mechanism |
| C Monetary policy stance | F Open market operations | I Inflationary expectations |

- 1 How changes to monetary policy affect the interest rates that households and businesses face, and flow through to economic activity, employment and inflation
- 2 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 RBA Board
- 3 The (intended) overall effect of the monetary policy setting on the level of economic activity in an economy
- 4 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
- 5 To adopt a more contractionary monetary policy stance; this involves raising the cash rate to decrease the level of economic activity
- 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 The interest rate that banks pay to borrow funds from other banks on overnight loans in the short-term money market
- 8 Measures implemented through the Reserve Bank of Australia to bring about changes in aggregate demand by influencing money supply and interest rates
- 9 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

9.3 Multiple-choice questions

Select the correct response to each of the following:

- 1 The cash rate is the interest rate on:
 - A loans between banks.
 - B loans to commercial banks by the RBA.
 - C bank deposits held by the RBA.
 - D mortgage loans to households.
- 2 Which of the following would *not* have an exchange settlement account in the interbank market?
 - A Commonwealth Bank
 - B AAMI
 - C RBA
 - D Colonial Mutual Building Society
- 3 An easing of monetary policy would involve:
 - A higher interest rates.
 - B a higher cash rate.
 - C the RBA 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 A decrease in the cash rate would be transmitted through:
 - A the asset prices and wealth channel.
 - B the savings and investment channel
 - C the cash-flow channel.
 - D all of the above.
 - E none of the above.

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- 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.
 - C They can only be transferred to other banks, the RBA or the government.
 - D Changes to the level of these does not change the supply of cash in the market.
- 11 Why might a financial institution buy government securities off the RBA in the money market?
- A to earn interest on surplus funds in their exchange settlement accounts
 - B to meet their exchange settlement needs
 - C to get money at the cash rate that they can lend later at commercial rates of interest
 - D to make required payments to the Australian Taxation Office
- 12 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
- 13 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
- 14 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.

- 15** It is estimated that lowering the cash rate by 100 basis points leads to (*ceteris paribus*):
- A** a rise of almost 1 percentage point in the rate of inflation per year over two to three years.
 - B** a fall of almost $\frac{1}{4}$ of a percentage point in the rate of inflation per year over two to three years
 - C** a $\frac{1}{2}$ to $\frac{3}{4}$ percentage point rise in GDP over the course of two years.
 - D** a 1 to 2 percentage point rise in GDP over the course of two years.

9.4 Short response questions

- 1 What is the nature and purpose of monetary policy?
- 2 Accurately describe the role of the RBA.
- 3 What is the purpose of a monetary policy target and how is the RBA's target expressed?
- 4 Why is it important that the RBA is seen as independent of the government?
- 5 Explain how the RBA 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 the 1960s with the period since 1990. Why are the rates of inflation so different in the two periods?

9.5 Extended written responses

- 1 Under what circumstances could a reduction in the cash rate be an appropriate monetary-policy setting?
- 2 Explain how competing government objectives limit the effectiveness of monetary policy. Concentrate on only two to three objectives.
- 3 What time lags most limit the effectiveness of monetary policy?
- 4 Which groups of Australians would have been most negatively affected when the cash rate reached 17–17.5 per cent in the early 1990s?
- 5 Briefly compare the main strengths and weaknesses of monetary and fiscal policy.
- 6 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?
- 7 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.
- 8 What monetary policy role did Milton Friedman suggest for governments and why?
- 9 Summarise the main global and domestic considerations behind the most recent cash-rate decision by the RBA Board.

9.6 Activities

Annotating an RBA statement on a cash-rate setting

Using the following example from February 2018 as a model, annotate a recent RBA 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. The necessary weblinks are provided on NelsonNet.



RBA
media
releases

**Media release: Statement by Philip Lowe, Governor:
Monetary Policy Decision
Number: 2018-01
Date: 6 February 2018**

At its meeting today, the Board decided to leave the cash rate unchanged at 1.50 per cent.

Cash rate: the interest rate that banks pay to borrow funds from other banks on overnight loans in the short-term money market.

The level of economic activity increased in many of the world's economies.

There was a broad-based pick-up in the global economy in 2017. A number of advanced economies are growing at an above-trend rate and unemployment rates are low. Growth has also picked up in the Asian economies, partly supported by increased international trade. The Chinese economy continues to grow solidly, with the authorities paying increased attention to the risks in the financial sector and the sustainability of growth.

Countries whose national economies have high levels of GDP per capita and high levels of industrialisation. While there is no exact agreement on the level of GDP, fewer than 40 of the world's nations are considered advanced.

Levels of growth in GDP that are near the economy's long-term average. It is also considered a level that is the economy's potential economic growth rate; a level above which the supply of productive resources will be less than demand, leading to damaging levels of price inflation.

The pick-up in the global economy has contributed to a rise in oil and other commodity prices over recent months. Even so, Australia's terms of trade are expected to decline over the next couple of years, but remain at a relatively high level.

Perhaps referring to the risk that inflation, flight of capital to overseas investment opportunities or safe havens and collapse in financial institutions might become serious problems. Related to an extensive period of quantitative easing by the central bank and inadequate control of 'shadow banks'.

The price of imports compared to exports.

Globally, inflation remains low, although higher commodity prices and tight labour markets

Demand for workers 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.

are likely to see inflation increase over the next couple of years. Long-term bond yields have risen but are still low. As conditions have improved in the global economy, a number of central banks have withdrawn some monetary stimulus. Financial conditions remain expansionary, with credit spreads narrow.

A rise in the level of average prices in an economy.
Long-term bonds are securities that certify an investor has loaned a fixed amount of money to an institution, usually a government or corporation, for a set period of time at a variable or fixed interest rate, payable on the date the bond matures. The yield is the amount of return an investor realises as reward for purchasing the bond over a period that typically exceeds 15 years.

Government-owned national banks that act as bankers to the government, issue currency and have power to regulate aspects of financial markets in that country.

The Bank's central forecast for the Australian economy is for GDP growth to pick up, to average a bit above 3 per cent over the next couple of years.

The annual rate of increase in the value of production (of goods and services) in an economy.

The data over the summer have been consistent with this outlook. Business conditions are positive and the outlook for non-mining business investment has improved. Increased public infrastructure investment is also supporting the economy. One continuing source of uncertainty is the outlook for household consumption. Household incomes are growing slowly and debt levels are high.

The basic physical and organisational structures and facilities needed for a society and economy to function. They are provided and generally owned by governments. They include roads, bridges, pipelines, energy generation facilities, transmission systems, waste-disposal systems, schools, hospitals, law enforcement, ports and airports.

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Employment grew strongly over 2017 and the unemployment rate declined. Employment has been rising in all states and has been accompanied by a significant rise in labour force participation. The various forward-looking indicators continue to point to solid growth in employment over the period ahead, with a further gradual reduction in the unemployment rate expected. Notwithstanding the improving labour market, wage growth remains low. This is likely to continue for a while yet, although the stronger economy should see some lift in wage growth over time. There are reports that some employers are finding it more difficult to hire workers with the necessary skills.

Any place (may be virtual or physical) where employers (the hirers of labour) and potential workers (the suppliers of labour) interact for the purpose of exchanging labour for wages.

Inflation is low, with both CPI and underlying inflation running a little below 2 per cent. Inflation is likely to remain low for some time, reflecting low growth in labour costs and strong competition in retailing. A gradual pick-up in inflation is, however, expected as the economy strengthens. The central forecast is for CPI inflation to be a bit above 2 per cent in 2018.

On a trade-weighted basis, the Australian dollar remains within the range that it has been in over the past two years. An appreciating exchange rate would be expected to result in a slower pick-up in economic activity and inflation than currently forecast.

Nationwide measures of housing prices are little changed over the past six months, with prices having recorded falls in some areas. In the eastern capital cities, a considerable additional supply of apartments is scheduled to come on stream over the next couple of years. To address the medium-term risks associated with high and rising household indebtedness, APRA introduced a number of supervisory measures. Tighter credit standards have also been helpful in containing the build-up of risk in household balance sheets.

The low level of interest rates is continuing to support the Australian economy. Further progress in reducing unemployment and having inflation return to target is expected, although this progress is likely to be gradual. Taking account of the available information, the Board judged that holding the stance of monetary policy unchanged at this meeting would be consistent with sustainable growth in the economy and achieving the inflation target over time.

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- 1** Cash rate: the interest rate that banks pay to borrow funds from other banks on overnight loans in the short-term money market.
- 2** The level of economic activity increased in many of the world's economies.
- 3** Countries whose national economies have high levels of GDP per capita and high levels of industrialisation. While there is no exact agreement on the level of GDP, fewer than 40 of the world's nations are considered advanced.
- 4** Levels of growth in GDP that are near the economy's long-term average. It is also considered a level that is the economy's potential economic growth rate; a level above which the supply of productive resources will be less than demand, leading to damaging levels of price inflation.
- 5** Perhaps referring to the risk that inflation, flight of capital to overseas investment opportunities or safe havens and collapse in financial institutions might become serious problems. Related to an extensive period of quantitative easing by the central bank and inadequate control of 'shadow banks'.
- 6** The price of imports compared to exports.
- 7** Demand for workers 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.
- 8** A rise in the level of average prices in an economy.
- 9** Long-term bonds are securities that certify an investor has loaned a fixed amount of money to an institution, usually a government or corporation, for a set period of time at a variable or fixed interest rate, payable on the date the bond matures. The yield is the amount of return an investor realises as reward for purchasing the bond over a period that typically exceeds 15 years.
- 10** Government-owned national banks that act as bankers to the government, issue currency and have power to regulate aspects of financial markets in that country.
- 11** The annual rate of increase in the value of production (of goods and services) in an economy.
- 12** The basic physical and organisational structures and facilities needed for a society and economy to function. They are provided and generally owned by governments. They include roads, bridges, pipelines, energy generation facilities, transmission systems, waste-disposal systems, schools, hospitals, law enforcement, ports and airports.
- 13** Any place (may be virtual or physical) where employers (the hirers of labour) and potential workers (the suppliers of labour) interact for the purpose of exchanging labour for wages.

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 9
answers



Getty Images/Andy Ryan

10

Economic management: microeconomic policies

Microeconomic policies focus on increasing supply in the economy by increasing the efficiency, productivity and international competitiveness of Australian production. They complement the application of macroeconomic policies to manage demand in the short-to-medium term, by promoting long-term structural change and growth in the economy.

Focus questions and inquiries

- What are microeconomic policies?
- How do microeconomic policies influence the aggregate level of supply?
- How are microeconomic and macroeconomic management policies different?
- What has been the historical significance of microeconomic policies for Australia's economic growth and development?
- 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?
- 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
- the key objectives of microeconomic policy actions
- 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
- recent microeconomic policies that have attempted to improve Australia's economic growth
- recent supply-side reforms and how effective they've been

To provide a basis for answering such questions and carrying out such inquiries, this chapter will examine the following:

- microeconomic policy and how is it related to the level of aggregate supply

10.1 Introduction to microeconomic policies

CONCEPTS



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

National Competition Policy: policy aimed at making markets more competitive and preventing the abuse of market power

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 can remove barriers to change and promote structural changes that make local industries more productive, efficient and competitive.

10.1.1 The nature and purpose of microeconomic policies

Supply-side policies are government initiatives that promote economic change 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. Such economic growth causes national income to rise, puts downward pressure on inflation and improves the balance of payments. Microeconomic reforms target specific structural problems on the supply side of domestic markets, which also helps the Australian economy adjust to emerging structural change at the global level.

Microeconomic reforms pursue these goals 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, 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.

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. Towards the end of the twentieth century, the services, technology and communications sectors became central to economic activity in Australia and other advanced economies, while the relative importance of the manufacturing sector and, to a lesser extent, agriculture declined in importance.

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.

In the long run, an economy will decline unless it responds to structural change. In an increasingly integrated global economy, change – and the disruption that accompanies it – is unavoidable. Any economy that is slow to adjust will become less competitive and will experience declining economic growth and external viability, 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.

10.1.2 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 is 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 tradable and non-tradable 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 well-being, depends on the adequacy of the nation's infrastructure. Infrastructure is the basic physical and organisational structures and facilities needed for people to conduct their daily lives, and for producers to access supplies of productive resources and intermediate goods, produce goods and services, and market and distribute the finished products. 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.

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.

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.

Deregulation and competition policy

Deregulation and competition policy refer to two related strands of microeconomic policy seeking to increase competition 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.

The Productivity Commission

The Productivity Commission 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.

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.

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. Lower or better-targeted taxes can give firms the incentive to invest in new capital goods that raise productivity, and to expand production, potentially increasing employment in higher-skill jobs. Any incentives for households to save and businesses to increase investment have positive implications for the balance of payments, the cost and availability of credit, economic growth and overall living standards. The taxation system is one of the most direct ways to boost the R&D necessary for structural change.

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 well-being 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. Meeting the demand from low-income consumers for affordable housing is a growing challenge needing an effective supply-side response. The introduction of the National Disability Insurance Scheme is one of the most significant reforms in the human services sector ever undertaken in Australia.

The floating of the exchange rate

The floating of the exchange rate by the Hawke Government in 1983 may be the most significant economic reform in modern Australian history. The ability of the Australian dollar to react to market forces has been instrumental in helping an increasingly trade-based Australian economy react to changes in global and regional economic cycles without experiencing major macroeconomic instability. This was part of a wider deregulation of the financial system that included the removal of direct control of bank interest rates and lending policies, the use of open market operations by the Reserve Bank of Australia in pursuit of its monetary policy goals, and the opening of the financial sector to competition from overseas-based banks. The goal of these reforms was to improve the efficiency of allocation of capital resources, minimise costs and improve the use of innovation, especially in regard to ICTs. These reforms have helped stimulate a revolution in the provision of financial services. The diversity of available products, the choice of providers, the size of the Australian financial sector and its international importance all owe something to government-driven financial reforms.

Trade and industry policies

Key features of trade and industry policies have been the dismantling of industry protection, the promotion of import competition, the diversification of export markets, and increasing the volume and value of exports. Every recent Australian government has pursued bilateral and multilateral trade agreements to liberalise trade. 'Trade liberalisation' refers to the removal of barriers to free trade between nations that seek to protect domestic producers from overseas competition. These trade reforms have opened up access to overseas markets, and exposed domestic markets to increased competition, forcing domestic producers to become more efficient.

QUESTIONS

- 1 At what level of economic activity do supply-side policies work?
- 2 What do you understand the term 'multi-factor productivity' to mean?
- 3 Use the terms 'resource allocation', 'productivity', 'output' and 'efficiency' in a sentence, to explain the purpose of microeconomic reform policies.
- 4 What is structural change and why is it unavoidable? Answer in a short response of 100–150 words that includes some contemporary examples.



-
- 5 Describe the relationship (cause and effect) between microeconomic policies and structural change.
 - 6 What is infrastructure and why is it important to the levels of aggregate supply in the Australian economy and the well-being of Australian residents?
 - 7 What link is there between future levels of aggregate supply and current levels of education and training?
 - 8 Compare innovation and R&D.
 - 9 Analyse and 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'.
 - 10 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.

10.1.3 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 10.1. 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 . Thus, more goods can be produced with the same amount of inputs, shifting the long-run aggregate supply curve to the right. Equilibrium real GDP rises and the equilibrium price falls. More output is now available at a lower price level.

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 10.1 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.

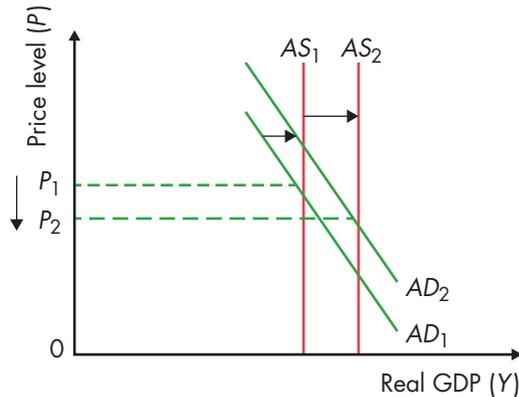


FIGURE 10.1 The long-term effect of microeconomic reform on output and price

10.1.4 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

Dynamic efficiency: the ability of an economy to respond to changing consumer

demands by reallocating resources to new industries or production processes

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 can improve allocative, technical and dynamic efficiency by minimising distortions of the market caused by government regulation and lack of competition.

You have already learnt 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.

Productive efficiency is achieved when firms produce by using resources 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.

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 10.2).

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.

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.

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 how efficiently the productive inputs of labour and capital are being used, and therefore charts 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



There is obviously no economy in the world that produces just two products, but like all economic models, this one simplifies the economic landscape to identify some complex 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 10.1 by increasing the resources available would require diverting available resources from one area of production to another. The production-possibilities curve in Figure 10.2 demonstrates the range of combined outputs that are possible with existing levels of productive resources.

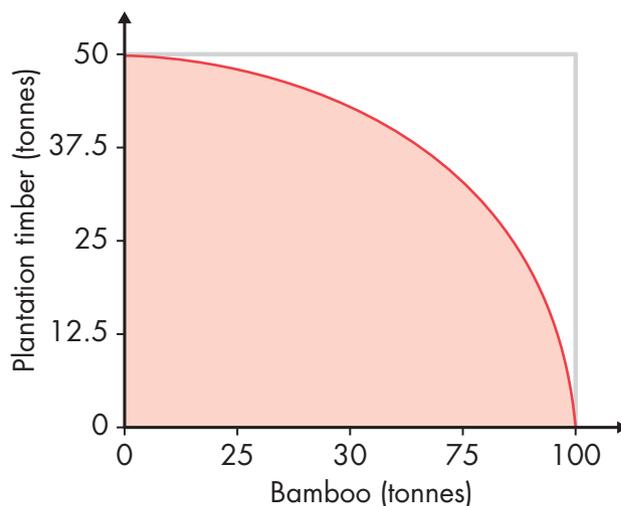


FIGURE 10.2 The production-possibilities curve for plantation timber and bamboo

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 resources has 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 10.1. Dynamically efficient firms will respond more quickly to 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 policy action by government can promote the increases in output demonstrated in the bamboo example above, 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.

QUESTIONS

- 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 List at least 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 Contrast the meaning of 'productivity' and 'multi-factor productivity'.
- 9 In the example (Figure 10.2) comparing the possible production levels of timber and bamboo, 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.

10.2 The relationship between microeconomic reform and domestic macroeconomic objectives

CONCEPTS



Intergenerational equity: the just sharing of economic benefits and costs between the 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 well-being 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, education and health standards, 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 well-being 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.

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.

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.

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. However, economic management that is not clearly focused on achieving these longer-term goals is likely to be viewed by future generations as short-sighted and fundamentally flawed.

The goal of all economic systems is to maximise people's standard of living, but, as we observed in Section 7.2.4, 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 well-being.

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 well-being. 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 economic development allows the material living standards of past and present generations to be 'subsidised' by 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 USA's Marine Mammal Protection Act defines optimum sustainable population as 'the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element' (National Oceanic and Atmospheric Administration (NOAA)). An economic understanding of an optimal human

population may be different from that for other mammals. Humans use capital goods and develop technologies and sophisticated production processes to boost productivity. We can also transform and degrade environments in ways that are beyond the scope of other mammals. 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 can be too few people to use the available resources efficiently and fully. Conversely, there can 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. The geographic distribution of that 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.

The relationship between supply- 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.

QUESTIONS

- 1 What is the major difference between a person's 'standard of living' and their 'quality of life'?
- 2 In Section 10.2, 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:
 budgetary surplus ($T > G$) \rightarrow $\downarrow AD \rightarrow AD < AS \rightarrow$ \downarrow demand-pull inflation \rightarrow \uparrow 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 they 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 Write 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.

Activities

- 1 Brainstorm with your class, or a group of peers or adults, what economic problems the Australian economy is currently facing.
- 2 Write a list of these.
- 3 Analyse your list and decide which problems meet the above criteria; that is, they are caused by structural, not cyclical, factors.
- 4 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 Activities 4 and 5.)
- 5 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.

10.3 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

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





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



Alamy Stock Photo/914 collection



AAP Image/Joe Castro



Queens Wharf Project, Brisbane Development

FIGURE 10.3 Three generations of development in Australian infrastructure: (a) the Sydney Harbour Bridge, (b) the Snowy Mountains Hydro-electric Scheme and (c) the Queen's Wharf project in Brisbane

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 well-being.

Section 10.1 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 is therefore the key determinant of the ability of the Australian economy to increase the success of domestic producers and raise the living standards of the household sector 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. The major disadvantage of this highly centralised system is that it lacks the flexibility of a system based on the interaction of the forces of supply and demand at the level of each firm and workplace. 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 had played a lesser role in economic management by Australian governments than macroeconomic policies. The Hawke and Keating Governments 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 government supply-side reforms have made to efficiency, competitiveness and structural change, but some social and market-induced changes are important background to these government policies, especially:

- the impact of new technologies, such as robotics and especially ICTs, in shrinking the effective distances between markets and reducing production costs and prices, the growth of e-commerce, online shopping and social networking
- the increased integration of Australia into the global economy

- the rapid economic development of Asian economies and their growing significance to the Australian economy
- the rapid population increase focused on the main urban areas, and the demands this is placing on existing infrastructure
- the increased importance of the service sector and the decline of many traditional manufacturing industries, along with the related changes in the composition and distribution of the workforce
- higher rates of school retention and participation in post-school study
- the impact of the resources boom in the 2000s, the GFC post-2008 and the winding-down of resource investment post-2015
- greater workforce participation by women and older workers
- the declining proportion of the workforce that is unionised
- the rapid increase in the level of household debt.

10.3.1 Regulatory reform and competition policy

Regulation of the supply side of Australian markets began in the first years after Australia became a Federation in 1901. A centralised system was established to determine wage levels and settle industrial disputes. Tariffs and quotas were placed on a wide range of imports, to protect domestic producers.

Publicly owned business enterprises

Citing ‘public interest’, governments in Australia have established government business enterprises (GBEs) to provide competition for private sector firms, especially in markets considered to be natural monopolies, to reduce prices or improve the quality of goods and services. This type of market intervention has been especially favoured by Australian Labor Party (ALP) governments. The Commonwealth Bank was founded in 1911 by the Fisher ALP Government to conduct both savings and general banking business in competition with private, largely state-based banks. A number of government-owned business enterprises have been established in the years since, mostly in infrastructure industries. Nationalist Party governments led by Billy Hughes established the Commonwealth Shipping Line in 1917, and the Commonwealth Oil Refinery in the early 1920s, and acquired control of Amalgamated Wireless (AWA), the nation’s leading technology firm at the time. During the Second World War, an ALP government established another shipping line and acquired Qantas Empire Airways. A Liberal–Country Party Coalition retained Trans Australia Airlines (TAA) after the end of the Second World War to compete with the two existing private airlines.

The Whitlam ALP Government (1972–75) expressed a desire to nationalise a range of industries, but recognised that the Australian Constitution prevented this. It tried to establish new government monopolies in coastal shipping, stevedoring and air transport. The Whitlam Government also tried to introduce GBEs to compete in the international shipping market, petroleum importing and refining, insurance and daily newspaper markets. These attempts were largely frustrated by opposition from the private sector.

The Fraser Liberal Government established Medibank Private in 1975 to drive down insurance rates in the health insurance industry. The Rudd ALP Government legislated the development of a national broadband network (NBN) in 2009.

State governments, particularly in New South Wales and Queensland, established or acquired even more GBEs than the Commonwealth, especially in the areas of housing, land ownership, transport and banking. Queensland established a chain of government-owned butcher shops and cattle stations.



The Conversation –
Privatisation article

Major reform of Australia's public sector began in the 1990s and has resulted in the sector adopting practices more like the private sector. Privatisation of GBEs has been a major feature of reform to the supply side of the economy since the 1990s. University of Queensland professor John Quiggin argues that privatisation 'is a term that covers a multitude of policies. These range from the outright sale of government business enterprises like Medibank Private to the outsourcing of services like IT support for government agencies' (John Quiggin 'People have lost faith in privatisation and it's easy to see why', 10 August 2016. *The Conversation*). Follow the weblink to read the full article.

Apart from privatisation, reforms to GBEs that aim to increase efficiency include the following:

- Corporatisation that involves reorganising a GBE or government department into a legal entity with a corporate structure like that of a public company: the aim is to change the way the government body functions, with clear management structures and objectives, and accountability for performance, like a private business.
- Commercialisation of some GBEs to provide incentives to improve efficiency through the need to pay dividends to the government, as the enterprise's owner: Stanwell Power Corporation is a Queensland example.
- Applying principles of competitive neutrality to ensure that GBEs operate in the same competitive environment as any private sector firms they may be competing with: this involves payment of interest on loans from the government, and payment of taxes and charges, thus reducing the 'advantages' flowing from being a monopoly.

The main justification for privatisation is the assumption that privately owned enterprises are likely to be more efficient because, unlike GBEs, they face competition – if they are inefficiently operated, then they will lose their market share to competitors, reducing the return to their owners. The opportunity for government to use the proceeds of asset sales, often on a lease basis, to pay down government debt and reduce the drain of servicing charges on budgets has been offered as an additional justification in Australia in recent years. The New South Wales Government sold its electricity and port assets, arguing that they would be more efficiently run by the private sector and that the substantial funds raised could be used to construct new and necessary infrastructure assets.

Australian governments, both federal and state, have privatised a significant portion of the public sector, leaving more infrastructure assets in private hands. The GBEs that have been sold include the Commonwealth Bank, Qantas, the Australian Industrial Development Corporation, Medibank Private, the Commonwealth Serum Laboratory and Telstra. The Commonwealth has also sold airports in Sydney, Melbourne, Brisbane and Perth, and the Australian National Railway (except its interstate track). At the state level, governments privatised their banks and insurance offices, and this was followed in a number of states by sales of electricity generators and distributors, and gas utilities. Some states have also sold their gambling interests. In Queensland, the Port of Brisbane, QR National (now Aurizon) and a number of freeways and road tunnels have been sold into private ownership, or leased for long periods. The merger of Suncorp and QIDC with Metway is treated as privatisation of an insurance office. Infrastructure Australia argues that 'infrastructure provides best outcomes when it is delivered within robust, well-regulated market structures and funded through an efficient and equitable balance of user and taxpayer dollars' (© Infrastructure Australia, 2016. Commonwealth of Australia). Follow the weblink to read the full report.



Australian
Infrastructure Plan
Report February 2016

Competition policy

A high level of government intervention in the operation of markets was not restricted to ownership of GBEs. Market conduct is regulated by a multitude of laws and regulations

that limit the freedom of enterprises to behave in ways considered to be at odds with the interests of the Australian public. The economic argument for this was that market failure was leading to uncompetitive markets that were providing less-than-optimal outcomes for consumers and reducing external viability, with negative consequences for Australia's current account balance.

The National Competition Policy was Australia's landmark microeconomic reform program in the 1990s. Following a report by an independent committee of inquiry (known as the *Hilmer Report*), the peak intergovernmental forum in Australia, the Council of Australian Governments, established and implemented the National Competition Policy. This policy, widely recognised as having contributed significantly to competition and Australia's welfare between 1995 and 2005, has been succeeded by the National Reform Agenda. The success of **deregulation** has been more contested, especially in the dairy, transport and energy sectors.

The key Commonwealth law underpinning competition policy is the Competition and Consumer Act 2010 (which replaced the Trade Practices Act 1974), which incorporates the Australian Consumer Law. These are administered by the Australian Competition and Consumer Commission (ACCC), which acts independently of government to protect consumers, punish unfair trading and promote competitive practices.

The ACCC has wide-ranging powers covering such things as industry codes of conduct, product labelling and the safety of goods. It monitors prices and regulates key infrastructure industries including gas, electricity, airports and telecommunications.

In 2015 an independent review of competition policy, known as the *Harper Review*, made 56 recommendations on ways to strengthen competition, including a public interest test based on the effects of market concentration and uncompetitive practices.

Market regulation

Some of the key government bodies used to regulate conduct in Australian markets, with the aim of improving supply-side outcomes, are listed below.

Financial industry deregulation

- Australian Security and Investment Commission (ASIC)
 - Australian Prudential Regulation Authority (APRA)
 - Australian Competition and Consumer Commission (ACCC)
 - various state consumer tribunals, such as the Queensland Office of Fair Trading (OFT).
- ASIC, APRA and the ACCC are the principal regulatory agencies that implement government policy on corporate regulation.

Revenue collection

- Australian Taxation Office (ATO): 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, 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 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 (2010), later known as the Fair Work Commission.

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

Since 1983, Australia has embarked on a program of deregulation of markets to complement the privatisation of GBEs. This was seen as a means to increase competition, lift productivity and reduce consumer prices. The deregulation ‘movement’ is largely based on the influence of two key economic thinkers:

- Nobel laureate George Stigler’s theory of economic regulation identified **regulatory failure**, resulting in inefficiency, as the outcome of excessive government regulation.
- William Baumol provided a rationalisation for the removal of regulation based on **contestability theory**.

These bodies of work strengthened a global push for deregulation that has gathered strength as global markets have become more integrated. Deregulation in Australia began with the financial system in 1983, including the floating of the Australian dollar. In the 1990s, the focus widened, and the pace of deregulation increased. Key industries that have been deregulated include the following:

- Controls were removed from financial markets in the early 1980s. The setting of market interest rates was left to financial institutions, 16 foreign banks were licensed to compete in Australian markets, and the exchange rate for the Australian dollar was floated.
- The local airline industry was deregulated in the 1990s. Qantas was allowed access to domestic routes, and domestic airlines were allowed access to international routes.
- In 1992 Optus was allowed entry to the telecommunications market to compete with Telecom, the government-owned market leader. Vodafone was given entry to the mobile phone market in the following year. A range of other carriers began to compete when the market was fully deregulated in 1997.
- In agricultural markets, wheat marketing was deregulated in 1989 and embargos were removed on imported citrus and dried fruit, sugar and tobacco in 1995. Egg marketing in some states has been deregulated.

QUESTIONS

- 1 Explain the difference in meaning between the terms 'supply' and 'aggregate supply'.
- 2 What are the two main ways that 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 10.4 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 10.4 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 Highlight the key points made in the article 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.

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.

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

10.3.2 Investment in infrastructure

The history of Australia's economic development has featured some iconic infrastructure projects characterised as 'nation-building projects'. Outstanding examples include the Sydney Harbour Bridge (opened in 1932), the construction of the Snowy Mountains Hydro-electric Scheme (1949–74), the Trans-Australian Railway (1974), the development of Woodside's North West Shelf project in the 1980s, and the Curtis Island liquified natural gas plant at Gladstone (2015). At the time this text was written, a range of other major infrastructure projects were in the planning or construction phase, including the Melbourne to Brisbane inland rail, Sydney's six-star luxury hotel resort at Barangaroo Point, the Adani coal mine, the second Sydney airport at Badgerys Creek, Melbourne's north-east freeway link, and Brisbane's Queen's Wharf project.

These projects provide employment during both the construction and production phases, deliver new goods or services, and help use Australia's resources in new and productive ways. They may also generate improvements in the efficiency and competitiveness of many firms in the supply chain, through economies of scale and exposure to innovative technology.

Australia's most famous and distinctive building, the Sydney Opera House, is an example of how infrastructure can simultaneously make an economic and cultural contribution to the nation. Opened in 1973 and added to UNESCO's World Heritage List in 2007, it is a major tourist attraction that generates considerable economic activity and is the most internationally recognised symbol of Australia.

Historically, the majority of infrastructure in Australia has been provided by state governments, rather than the private sector or the Federal Government. State governments typically raised taxes, which were quite often levied on land owners, to supply the infrastructure needed. However, since the Second World War, much of the necessary funding has depended on the Federal Government allocating funds to provide grants to the states for this purpose. Major projects are generally funded by borrowing capital from private sector investors, with a substantial proportion sourced from overseas.

The division of power between the Commonwealth and other levels of government, outlined in the Australian Constitution, determines that responsibility for infrastructure provision lies with state, territory and local governments. There is scope for private sector involvement, but the Commonwealth Government is the dominant influence in the provision of new infrastructure through:

- investment by GBEs and by government departments and agencies
- specific-purpose payments to the states to fund infrastructure
- the formulation of framework policies; that is, the regulations, legislation and other policies that set the parameters within which other governments and the private sector make investment decisions.

The huge investment required to provide and upgrade infrastructure is primarily provided by governments, but there has been an increasing emphasis on private–public partnerships in recent years. Despite this, only about 10 per cent of economic infrastructure is in the hands of the private sector.

Infrastructure underpins economic growth, boosts the efficiency and competitiveness of Australian producers, and is a key causal factor in improved resource allocation, living standards and well-being. Infrastructure Australia estimated that infrastructure services accounted for 13 per cent of GDP in 2011, of which more than 70 per cent was related to transport. The adequacy of the nation's infrastructure depends on a continual stream of investment in capital goods.

10.3.3 Investment in education and training

While education and training is primarily the responsibility of state governments, much of the funding comes through the Commonwealth budget. Significant on-the-job training and upskilling to meet the changing needs of industry is provided by employers or funded by them, and delivered by universities and vocational education providers.

In the early 1970s, there was a significant push to make tertiary education in Australia more accessible to working- and middle-class Australians. Free university education was introduced by the Whitlam Government in 1974. Reforms have continued in recent decades – especially in the arrangements for the university, school and vocational education sectors – aimed at improving participation, educational outcomes and skill development.

The Higher Education Contribution Scheme (HECS), introduced in 1989, has shifted much of the cost of higher education from the Commonwealth to students, enabling a continuing expansion of the tertiary sector in an era of budgetary constraint. Allowing more fee-paying students at university and school level has opened up a lucrative export market and helped both sectors to expand.

Significantly increased spending was a feature of the 2008–09 Commonwealth Budget, and, following a review of school funding, the 2012 *Gonski Report* has led to significant and contentious increases in education spending in recent budgets, which began with \$9.8 billion in 2013–14 to provide a more equitable funding model for schools, and initiatives to improve educational outcomes. The government allocated \$12 million over four years from 2016–17 to support implementation of the National Strategy for International Education.

Significant reform of the vocational education and training sector has been attempted. Recent highlights include:

- the allocation of \$1.5 billion in the 2009–10 budget to a Jobs and Training Compact
- a new Skills for Sustainable Growth Strategy in 2010–11
- a \$3 billion allocation to the Building Australia's Workforce Package in 2011–12 and further funding of this program in 2012–13
- a \$1.5 billion skills fund in the 2017–18 budget, aiming to deliver an additional 300 000 apprentices and trainees over four years; this budget established a permanent National Partnerships Skilling Australia Fund, prioritising apprenticeships and traineeships in occupations in high demand.

10.3.4 External policies

The floating of the exchange rate of the Australian dollar (1983) and the ongoing removal of trade barriers have been the main reforms of external policies affecting the supply side of markets. A key element of Australian economic reform has been 'the sustained liberalisation of trade barriers and reduced industry protection. Throughout the 1970s, 80s, 90s and over the last decade, Australia has embarked upon unilateral, bilateral and multilateral trade liberalisation' (Centre for International Economics (CIE) Report on Australian Trade Liberalisation', DFAT, 31 October 2017. CC BY 3.0 AU licence (<https://creativecommons.org/licenses/by/3.0/au/>)). Follow the weblink to read the full report.



Centre for International
Economics (CIE) Report
on Australian Trade
Liberalisation

10.3.5 Research, development and innovation

Innovation may not require any investment of time or money, just a good idea. R&D is critical to the innovation process but costly, and there is no guarantee that investment will lead to the successful development of a new product or production process.

Innovators have difficulty attracting the scale of investment in Australia to develop ideas to a marketable stage; the largest companies are often the most innovative because they can

afford the sizeable R&D budgets. The Australian mining and agriculture sectors are among the most efficient in the world. In the case of mining, this may be primarily due to large R&D spending by the large multinationals that are the market leaders. In the agricultural sector, universities and government-funded bodies – including the Commonwealth Scientific and Industrial Research Organisation (CSIRO) – have played a key role. Governments can encourage innovation and R&D by giving favourable taxation treatment in fiscal policy or through microeconomic policies, such as investment in targeted grants. Government funding of research bodies or of individual researcher projects are also important. Most budgets this century have had some commitment to promoting innovation and R&D. Examples include:

- \$1.3 billion in 1997 for a range of initiatives related to R&D, finance, and business access to ICTs
- \$4.5 billion in 2001 for the Innovation Statement
- \$1.1 billion in 2015 for the National Innovation and Science Agenda.

10.3.6 Labour market reform

Streamlining of labour market regulation and the creation of more competitive labour markets have 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. A significant number of employees are covered by state industrial awards, including employees of local councils and shires, state government employees in the health and education sectors, state public servants, police officers and emergency service workers.

The Commonwealth Government plays an important role in this national workplace system, determining the legislation on which the system is based. Government policy action to influence the terms of pay and conditions of work is set out in each government's prices and incomes policy. This is essentially an arm of macroeconomic policy that seeks to control inflation, reduce unemployment and achieve an equitable distribution of income. However, within this common system, award conditions and wages are determined and industrial disputes are resolved within sectors of the economy, meaning that the national industrial relations system also operates at the microeconomic level. The Commonwealth's policies have the following objectives:

- controlling the expectations and demands of workers (and trade unions) to achieve wage restraint and reduce upward pressure on prices
- protecting the income and working conditions of employees through regular adjustments to minimum wages and enforcement of uniform working standards
- providing a framework for the settlement of industrial disputes
- promoting labour market reform, productivity and workplace flexibility through the award system, enterprise agreements and common law contracts.

Australian industrial relations had a history based around the centralised fixing of awards that determined minimum wages and conditions, arrived at by collective bargaining in which trade unions played a central role, and ratified by the Commonwealth Conciliation and Arbitration Commission.

The Prices and Incomes Accords (1983–91), under the Hawke–Keating ALP Governments, were the most significant reforms of Australia's industrial relations landscape since the early years of Federation. Following a period of very high inflation that had a significant cost-push element and a high level of industrial disputes, this (along with deregulation) formed the centrepiece of the government's economic reform agenda, which aimed to make the Australian economy more globally engaged. The Accords were a series of agreements between Labor and the Australian Council of Trade Unions (ACTU), where unions would moderate their wage

demands in exchange for improvements in the 'social wage'. The central industrial bodies still ratified agreements, but these were reached by a bargaining process. In this context, 'social wage' meant the right of everyone in employment to receive enough income, through a combination of wages and government supplements and services, to maintain their standard of living. Today, a social wage is on the economic agenda in many developed nations, but it now involves a basic income guarantee and universal health care for all citizens, including the unemployed and disabled.

A more detailed description and evaluation is available on NelsonNet.

The industrial relations landscape was deregulated and decentralised in 1996 by the passage of the Howard Government's Workplace Relations Act. A 2006 amendment to this Act, known as 'WorkChoices', introduced the most radical reform of workplace relations since the introduction of the award system of minimum wages in 1907. It deregulated the labour market by moving employees off industry-wide awards onto individual workplace agreements, union collective agreements negotiated directly with employers, and non-union collective agreements. It aimed to contain the costs of labour and empower employers by giving them more flexibility in negotiating wages, conditions and hours of work, and greater power to hire and fire workers. The government argued that it benefited workers by giving them the opportunity to negotiate more flexible working arrangements and to earn higher wages by raising their levels of productivity. They also believed these policies would lead to higher employment growth and reduce the level of industrial disputes. WorkChoices replaced the Australian Industrial Relations Commission, giving a new body called the Australian Fair Pay Commission the power to set minimum award rates of pay and conditions at an annual Safety Net Wage Review. None of the agreements under WorkChoices had to pass the previous standard, which required that they left no worker disadvantaged compared to the provisions under existing awards.

The Rudd Government's 2008 Workplace Relations Amendment Act and 2009 Fair Work Act brought private sector workers under the umbrella of the national industrial relations system, and introduced a new industrial relations system which replaced many of the features that had made WorkChoices unpopular with unions, many workers and significant numbers of employers. It provided a safety net of ten national employment standards, contained in new modern awards, and revised enterprise bargaining arrangements that had to be approved by Fair Work Australia as passing a 'no disadvantage' test. This body and a Fair Work Ombudsman were given the power to regulate the bargaining process between employers and employees.

The Liberal–National Party Coalitions that first won election in 2013 have not been able to pursue substantial reforms due to opposition by the ALP and minor parties in the Senate. Their major reform was to secure the passage of a Bill to reintroduce the Australian Building and Construction Commission in 2016, in order to 'provide a tough cop on the block' in the construction industry.

10.3.7 Taxation reform

In 2000, the Howard Government introduced major reforms to the way government raised revenue. The New Tax System introduced a 10 per cent goods and services tax to replace the existing Commonwealth wholesale sales tax system, and was designed to phase out some state government taxes, duties and levies, such as banking taxes and stamp duty. It not only streamlined taxation, but also generated a growth tax that was handed to state governments, revolutionising federal–state financial relations. The laws relating to the taxation of fringe benefits were also amended. Marginal tax rates were reduced so that average Australians would pay no more than 30 per cent of their income in tax, and the company tax rate was reduced from 36 per cent to 30 per cent. The PAYG tax collection system was simplified to reduce the cost to business of complying with it.



Budgets between 2000 and 2010 introduced more cuts to marginal tax rates, and tax thresholds were increased to counter the effects of bracket creep. Adjustments were made to the taxation of superannuation to provide incentives for older workers to increase savings and continue participating in the workforce for longer.

In the 2008–09 budget, the *Henry Review* of the tax system was announced. This led to a report recommending major changes to the system, but governments have adopted few of these. One recommendation that was adopted was the raising of the tax-free threshold from \$6000 to \$18 200, to encourage low-income earners to increase their workforce participation.

The 2013–14 budget increased the Superannuation Guarantee Levy from 9 per cent to 12 per cent.

In 2014–15, the government announced a *White Paper on the Reform of the Australian Tax System*. The Treasury describes its purpose and importance in the following way:

The Australian Government wants to make a better tax system that delivers taxes that are lower, simpler and fairer.

Comprehensive tax reform may have the potential to lift Australia's gross domestic product more than any other government reform.

Effective tax reform requires a comprehensive and transparent national conversation between the community and the Government.

That is why the Australian Government is committed to a tax reform process that engages with, and delivers a better tax system for all Australians.

Source: 'Tax White Paper', 2015–2016, The Treasury. CC BY 3.0 AU licence (<https://creativecommons.org/licenses/by/3.0/au/>)

The 2015–16 budget announced measures to reduce multinational companies' ability to avoid tax by profit shifting and transfer pricing.

The 2016–17 and 2017–18 budgets announced measures to cut company tax rates, but it took some time for these bills to gain passage through parliament. The cuts were intended to reduce business costs and give an incentive for firms to increase output, profits and the level of wages. Large cuts to US company tax by the Trump administration put extra pressure on Australia to cut rates to maintain the competitiveness of Australian businesses.

10.3.8 Optimum population

While there is a high level of debate about Australia's immigration policy, especially regarding people arriving without visas and claiming refugee status, discussion of population policy has not been so widespread in the general community. Australia has an immigration policy, but no government or opposition party since the 1960 'Populate or Perish' era has articulated a clear population policy. A consequence of this is a rapidly growing population, concentrated in the major cities on the eastern seaboard. This growth is occurring without the support of carefully planned infrastructure to support the economic activities of the new arrivals and without policies that address the impacts of rapid population growth on the cultural and natural environments.

Every five years the Australian Government publishes the *State of the Environment (SoE) Report*. The 2016 report provides data suggesting that the rapid rate of population growth in recent decades is outgrowing existing infrastructure and putting unacceptable pressure on the natural environment. The report noted:

- The rate of population growth in our major cities, along with Australia's reliance on private cars, is leading to greater traffic volumes, and increasing traffic congestion and delays.
- Australia's biodiversity is continuing to decline.
- Rapid improvement in technology is likely to lead to significant improvements in our understanding of Australia's species and genetic diversity.
- We are continuing to lose agricultural land through urban encroachment.

QUESTIONS

- Which level of government is:
 - primarily responsible for providing education and training
 - the main source of the funding for schooling and tertiary education
 - responsible for the setting of minimum wage rates and the settlement of industrial disputes?
- Australia has a history of highly centralised wage setting and dispute settlement backed by strong industrial laws. Name the two main benefits and the major disadvantage of this, compared to a more market-based system.
- What market failures do progressive taxation and strong social welfare programs seek to correct?
- Explain what the following mean and, using examples where possible, explain how each can influence aggregate supply:
 - liberalisation of trade barriers
 - reduced industry protection
 - floating the Australian dollar
 - innovation
 - streamlining of labour market regulation
 - collective bargaining to establish industrial award conditions.
- '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.
- Give two reasons why it is difficult to attract investment in R&D.
- How can taxation reforms improve competitiveness and help boost output?
- What is meant by the description in Section 10.3.7 of the goods and services tax as a 'growth tax'? What other aspects of taxation policy were reformed in the Howard Government's New Tax System (2000)?
- What aspects of social and economic welfare are threatened by the pattern of population growth?
- Why is it important that Australia's infrastructure development is guided by a clear population policy?

10.1 True/False

For each statement, indicate whether you consider it to be True (T) or False (F).

- 1 Microeconomics focuses on the factors affecting the decisions made by individuals, firms and governments about the allocation of resources and prices of goods and services.
- 2 Governments can only respond to structural change, not initiate it, because structural change is driven by technological change.
- 3 Innovation may not require any investment of time or money.
- 4 The National Competition Policy involves an investment in technology, and increases the capacity of firms through the development of new products, processes and services.
- 5 The floating of the exchange rate for the Australian dollar in 1983 was an example of the application of macroeconomic, not microeconomic, policy.
- 6 The majority of existing Australian infrastructure has been provided by state governments.
- 7 The private sector owns 35 per cent of Australian infrastructure and governments own the other 65 per cent.
- 8 Regulation of the supply side of Australian markets began soon after Federation in 1901, with a centralised wage-fixing system and protection of domestic producers.
- 9 Publicly owned business enterprises in Australia have predominantly been established in markets considered to be natural monopolies to provide competition.
- 10 The Commonwealth Government provides most of the new infrastructure developed in Australia through investment by government business enterprises.

10.2 Terminology

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

- | | | |
|-------------------------------|--------------------------------|-----------------------------|
| A Microeconomics | E Optimum population | I Regulatory failure |
| B Supply-side policies | F Contestability theory | J Quality of life |
| C Structural change | G Privatisation | |
| D Dynamic efficiency | H Deregulation | |

- 1 The relaxation or removal of government restrictions on the free operation of markets
- 2 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
- 3 A measure of lifestyle standards based on material and quantitative indicators, such as possessions, income, education and health standards, and housing standards
- 4 The ability of an economy to respond to changing consumer demands by reallocating resources to new industries or production processes
- 5 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
- 6 The total or partial sale of a government business enterprise

- 7 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
- 8 Industry-wide changes in the pattern of production that result in certain products, production processes and even industries disappearing while new ones emerge
- 9 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'
- 10 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

10.3 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 well-being 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 The findings of an independent committee of inquiry, published in a report known as the *Hilmer Report*, led to which of the following supply-side reforms?
- A floating of the exchange rate for the Australian dollar
 - B development of a national competition policy
 - C deregulation of the financial system
 - D privatisation of government business enterprises
- 7 The *Henry Review* recommended:
- A major reforms to the taxation system.
 - B major reforms to the financial system.
 - C major reforms to the labour market.
 - D major reforms to the industrial relations system.
- 8 Which of the following is *not* an accurate statement about the Australian industrial relations system?
- A It has a history based around the centralised fixing of industrial awards.
 - B Award wages and conditions of work were arrived at by collective bargaining during the twentieth century.
 - C Trade unions have played a central role.
 - D The outcomes are decided by an industrial 'umpire' called the Commonwealth Conciliation and Arbitration Commission.
- 9 The labour market reform considered the most effective, at least in the short-term, was:
- A the Prices and Incomes Accords (1983–91).
 - B the Workplace Relations Act (1996).
 - C WorkChoices (2006).
 - D the Fair Work Act (2009).
- 10 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.

10.4 Extended written responses

- 1 Why are microeconomic policies important to the competitiveness of Australian exporters and the achievement of external stability?
- 2 Explain why 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.' Comment.

10.5 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. They all require analysis, critical thinking and decision making, and all responses should be justified using explicit criteria. The responses could be presented in a range of media and length of presentation, but are designed to provide practice topics for extended written reports or essays.

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 Collaborate with a group of your classmates to design a recipe for microeconomic reform in the Australian economy that would use the following criteria and encompass some or all of the dimensions below. Present this to your whole class in a style and at a length decided in consultation with your teacher.

Criteria

- boosts efficiency
- raises productivity
- increases international competitiveness

Dimensions

- 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
- labour market reform

- 5 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.

Inquiry based on stimulus materials

Assumptions regarding privatisation: a case study

- 1 Investigate the effectiveness of one example of privatisation of assets formerly owned by an Australian government and determine whether the costs of privatisation (in this case) exceed the benefits.
- 2 Present this to your whole class in a style and at a length decided in consultation with your teacher.

Use the following articles as stimulus before planning and conducting your investigation.

People have lost faith in privatisation and it's easy to see why

Professor John Quiggin, University of Queensland School of Economics

The Conversation

In a mixed economy like Australia's, the boundaries of the public and private sectors are constantly shifting. The desirability or otherwise of privatisation needs to be assessed on a case-by-case basis.

However, the rhetoric that has dominated Australian public policy for the last 25 years embodies the presumption that privatisation is always and everywhere desirable. The many failures of privatisation have led most ordinary Australians to draw the opposite conclusion.

It's even something the chairman of the Australian Competition & Consumer Commission (ACCC), Rod Sims, is now questioning. Sims' criticism of infrastructure privatisation in Australia is an old one; that in the absence of competition, replacing a public monopoly with a private one may make society worse off.

For example, as Sims observes, Port Botany and Port Kembla in New South Wales were privatised together, while the Port of Melbourne in Victoria was privatised with conditions restricting competition from other ports. The result, unsurprisingly, was big increases in charges.

Another example of privatisation gone wrong is the public funding of for-profit vocational education. This bipartisan policy began with the Brumby and Baillieu governments in Victoria and the Howard government federally.

The key idea was to open the state-funded TAFE system to competition from private providers. At the national level, the HECS system was extended to for-profit providers through FEE-HELP. The effect was to give strong incentives to enrol as many students as possible, while keeping costs to a minimum.

Bogus courses proliferated and aggressive marketers enrolled students who had little or no chance of completing their courses.

The comprehensive failure of vocational education privatisation is now universally recognised. The federal ministers responsible for the scheme, Luke Hartsuyker and Simon Birmingham, have been vociferous in their denunciations of Labor's failure to respond to problems in the system. But their reforms have been ineffectual.

Yet despite all this, the push for privatisation has gone on. The Baird government is moving ahead with TAFE privatisation. Similar moves are happening in other states.

The failure of for-profit education is not confined to Australia. For-profit education in the US has been a disaster area.

As in Australia, the primary business model has been the exploitation of public funding systems for disadvantaged students. The US Government Accounting Office found widespread evidence of fraud and deceptive marketing. As in Australia, attempts have been made to tighten the rules and numerous for-profit firms have gone bankrupt, but there is no evidence that the problems have been resolved.

Many of the same problems apply to other human services, such as hospitals. Nearly every Australian state has experienced a failed privatisation or public-private partnership in this area.

Sims also critiqued privatisation in human services, which is particularly striking because the introduction of for-profit competition into human services was a central recommendation of the Harper Review of Competition Policy, of which the ACCC has been a strong supporter. It is time to move beyond the failed policy of privatisation. In particular, we should recognise health and education as social investments that cannot be handed over to profit-driven speculators.

Source: John Quiggin 'People have lost faith in privatisation and it's easy to see why', 10 August 2016. The Conversation. CC BY-ND (<https://creativecommons.org/licenses/by-nd/4.0/>)

Privatisation has damaged the economy, says ACCC chief

Patrick Hatch

The Age (newspaper), 26 July 2016

Selling public assets has created unregulated monopolies that hurt productivity and damage the economy, according to Australia's consumer and competition tsar, who says he is on the verge of becoming a privatisation opponent.

In a blistering attack on decades of common government practice, Australian Competition and Consumer Commission Chairman Rod Sims said the sale of ports and electricity infrastructure and the opening of vocational education to private companies had caused him and the public to lose faith in privatisation and deregulation.

ACCC chairman Rod Sims says privatisation is hurting productivity.

‘I’ve been a very strong advocate of privatisation for probably 30 years; I believe it enhances economic efficiency,’ Mr Sims told the Melbourne Economic Forum on Tuesday.

‘I’m now almost at the point of opposing privatisation because it’s been done to boost proceeds, it’s been done to boost asset sales and I think it’s severely damaging our economy.’

Deregulating the electricity market and selling poles and wires in Queensland and NSW, meanwhile, had seen power prices almost double there over five years.

Mr Sims said privatising ports, including Port Botany and Port Kembla in NSW, which were privatised together, and the Port of Melbourne, which came with conditions restricting competition from other ports, were examples where monopolies had been created without suitable regulation to control how much they could then charge users.

‘Of course you get these lovely headlines in the *Financial Review* saying “Gosh, what a successful sale, look at the multiple they achieved”,’ Mr Sims said.

‘Well of course they bloody well did: the owners factored in very large price rises because there’s no regulation on how they set the price of a monopoly. How dopey is that?’

Mr Sims, who recently launched legal action against Medibank Private alleging it concealed changes to health insurance policies to boost profits ahead of its privatisation, said billions of dollars had been wasted in the scandal-plagued vocational education sector since it was opened up to the private sector.

A deal to privatise the Port of Melbourne was struck in March with conditions that restricted competition from other ports.

Deregulating the electricity market and selling poles and wires in Queensland and NSW, meanwhile, had seen power prices almost double there over five years, he said.

‘When you meet people in the street and they say “I don’t want privatisation because it boosts prices” and you dismiss them ... recent examples suggest they’re right,’ he told the room of influential economic and policy experts.

‘The excessive spend on electric poles and wires has damaged our productivity. The higher energy price we’re getting from some poor gas and electricity policies are damaging some of our productive sectors.’

Mr Sims said he was growing ‘exasperated’ as governments including the Commonwealth became more explicit in trying to maximise proceeds from asset sales.

‘I think a sharp uppercut is necessary and that’s why I’m saying: stop the privatisation,’ he said.

Mr Sims also used the forum to continue a public stoush with opponents of a proposed ‘effects test’, saying they were relying on ‘bogus’ arguments

against the Harper review proposal to give the ACCC powers to block action that had the purpose or effect of substantially lessening competition.

The Productivity Commission last week joined the Business Council of Australia, the federal Labor opposition and the supermarket giants in opposing the so-called 'effects test', which is a pet policy of National Party MPs including Deputy Prime Minister Barnaby Joyce.

Source: Patrick Hatch, 'Privatisation has damaged the economy, says ACCC chief', the Sydney Morning Herald, 26 July 2016.

You can find answers to selected review questions within this chapter on NelsonNet.



Review of
Chapter 10
answers

Review of Chapter 10

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

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 (for example, a new school due to an election promise) or consumption increases due to demographic changes

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

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

Basis point: one basis point 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 instead of fixing the value of one currency to one other currency, thereby minimising the effects of any fluctuations

Bilateral trade agreement: a trade agreement negotiated between two countries

Boom: the phase of the trade 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 methods 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 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

Competitive advantage (of a firm): a characteristic specific to a firm that makes it competitive in the market place; 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 'downturn'

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

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

Currency devaluation: a deliberate downward adjustment to the value of a country's currency relative

to another currency, group of currencies or standard under a fixed exchange rate

Currency revaluation: a deliberate upward adjustment to the value of a country's currency relative to another currency, group of currencies or standard under a fixed exchange rate

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 market place

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

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

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: any tax that is borne by the person or firm on whom it is levied because it cannot be passed on to someone else; for example, income 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'

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

Double taxation: the taxation of an international firm's profit in the country where it is earned and again in its home country where it is distributed

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 monetary policy stance; this involves lowering the cash rate to stimulate an increase in the level of economic activity

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 the import-competing industries

Embargo: a total ban on either the import or export of a commodity

Emerging market economies: developing economies that are transforming their economies to a capitalist

market system; also referred to as 'transitional economies'

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

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 Australia sells to foreign nations

External policy: measures taken 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

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)

Fiscal policy stances: the overall effect of a budget on the level of economic activity in an economy

Fixed exchange rate: the value of a currency that is determined by the government fixing it to the value of another currency at a certain level, and guaranteeing to maintain that level

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

Foreign debt: a debt owed by a nation to the rest of the world

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

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: situation 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 deflator: the index of variations in the prices of goods and services that make up GDP

GDP gap: the difference between actual and potential GDP

Global financial system: the global system of integrated national financial markets and institutions that provides the means for cross-border financial transactions

Globalisation: the growing integration of national economies to form a single interdependent global economy

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

Gold exchange standard: the system used by many countries until the late 1960s to determine the value of their currency; based on the fact that the value of the US dollar was fixed to the value of gold; that is, US\$35 = 1 ounce of gold

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'

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 licence: 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 practice of specifying 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 Australia from overseas

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

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

Intellectual property: technology and knowledge assets

Interdependence of national economies: linkage between events in one economy and outcomes in another by cross-border transactions and international flows of trade, capital and technology

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 the present and future generations

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-intensive methods 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

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; also known as 'hard-core unemployed'

M3: a measure of the money supply that includes currency, plus deposits in banks, credit unions and building societies, plus funds held by other authorised deposit-taking institutions

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: measures 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 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 a quarter 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

National Competition Policy: policy aimed at making markets more competitive and preventing the abuse of market power

Natural unemployment rate: the percentage of the labour force that is unemployed when the labour market is in equilibrium; includes frictional unemployment and structural unemployment; also known as 'non-accelerating inflation rate of unemployment'

Net foreign debt: gross foreign debt less Australian lending to overseas residents

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

Nominal value: value expressed in current quantities and prices

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

Open economy: any nation that trades with other nations

Open market operations: 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

Operational restrictions: political limitations that are placed on the way a foreign firm operates; for example, who it employs, the prices it charges and the markets it serves

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 the policy measure to have its effect on the targeted economic variables and the level of economic activity

Paradox of thrift: 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 major decisions are made

Participation rate: the percentage of the population over the age of 15 that is in the labour force

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 a company's shares in a foreign company to gain financial returns rather than to gain control of the business

Pound sterling: the currency of the UK

Price stability: a state of the economy in which there is little variation in prices; that is, there is low inflation

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)

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

Quality of life: the overall well-being 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 trade 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

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

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'

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: situation in which 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, education and health standards, 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

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 specific to a country, thereby acting 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

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 deflection: the re-routing of exports from one member country to another member of the free trade area to take advantage of the differences in tariffs

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 policy: the policy of increasing economic activity, creating jobs and obtaining a fair deal for Australia in the international market place

Trade-weighted index: an index compiled on the basis of importance of trade; at one stage used in determining the value of the Australian dollar

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: how changes to monetary policy affect the interest rates that households and businesses face, and flow through to economic activity, employment and inflation

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

Trend: the general movement over time of a statistically noticeable change

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

Voluntary export restraints (VER): the voluntary restriction of exports to another country to a pre-specified amount

Widening gap: increasing economic difference between poor nations and economically advanced nations

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

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Overview

- Fully updated for the QCAA Economics General Senior Syllabus implemented at Units 1 & 2 in 2019 and Units 3 & 4 in 2020
- Comprehensively covers the syllabus and unit objectives using the inquiry approach valued in the syllabus, with integration of the underpinning factors throughout
- Reflects changing Australian and global economies, with current data, statistics and real-world applications
- 'Economics in Action' sections provide realistic economics scenarios and allow students to learn through inquiry
- Clear definitions of key concepts provided throughout each chapter and in a complete glossary
- Updated reviews at the end of each chapter and numerous questions throughout ensure a steady development of knowledge and understanding
- Questions and activities support the new assessment model
- Full-colour design, illustrations and diagrams
- Customisable, interactive NelsonNetBook for digital learning and additional resources.