

Unit1 Economic performance and living standards

Measuring Australia's economic performance

If you were driving a car and saw a road sign saying 'hazardous conditions ahead', would you change driving behaviour? Most of us would.

It's the same with the economy. **Economists** measure economic performance as a way of seeing what lies ahead so that changes can be made to keep us travelling along the road safely.

There are many signs or indicators that can tell us how well the economy is performing. Measuring rates of production, the price of goods and services, and levels of employment are just some of the indicators that can tell us how well the economy is performing.



chapter 12

Source 1 Increased rates of production and levels of employment can be indicators that an economy is performing well.

12A

How is the performance of the Australian economy measured?

- 1 Do you think you have more goods and access to more services than your grandparents did when they were children? Why?
- 2 List at least ten things that provide a better life for citizens living in Australia's economy.

12B

How well does the Australian economy perform compared with other economies around the world?

- 1 Do you think that Australia is a great place to live compared with other countries? Why?
- 2 How could you measure whether one place was better to live in than another?

12.1 Measuring growth in the Australian economy – GDP

One way of measuring your performance at school is checking how well you have performed on a test. One way of measuring the performance of the **economy** is checking **Gross Domestic Product (GDP)** figures. GDP is a measure of the total value of all **goods and services** produced in Australia over a year, so if GDP increases we know that the economy is growing. If GDP decreases, we know the economy is contracting, or shrinking.

Understanding Gross Domestic Product (GDP)

As mentioned, GDP is a measure of the total value (in dollars) of all goods and services produced in Australia over a specific period of time. Let's look at this term in more detail:

- **'Gross'** means that tax or other deductions (like **depreciation**) are not taken into account when calculating GDP. GDP is a measure of value before these are deducted. For example, machinery decreases in value over time due to wear (known as depreciation), but this is not taken into account when calculating GDP.
- **'Domestic'** refers to production within a country such as Australia.
- **'Product'** includes goods (such as bread, mobile phones and clothes) and services (such as haircuts, tax returns, school fees). Only **final goods** and services are included when calculating GDP. For example, an apple pie is a final good because it is no longer being used to produce another good.

The importance of economic growth

The Australian Bureau of Statistics (ABS) releases its GDP figures every quarter (i.e. every three months). It is the percentage change in GDP that makes the news and tells us whether the economy is growing. On a yearly basis, economists hope to see **economic growth** exceed 2 per cent.

Economic growth is important because if more goods and services are being produced it means that



Gross
total figure before depreciation



Domestic
within a country



Product
goods and services

Source 1 Gross Domestic Product (or GDP) is one way to measure economic growth in an economy.

more people are being employed (and paid wages) to make them. People are then able to spend their wages on a wider variety of goods and services that may improve their living standard. When economic growth falls, it means that there is a decline in the number goods and services being produced, which usually means a decline in the number of people being employed, and the wages they are paid. In turn, this often means a decline in their standard of living.

An economic **recession** is where economic growth falls for two or more quarters (i.e. six or more months) in a row. Australia has had four recessions since 1960: 1961, 1974–75, 1982–83, and 1990–91. A **depression** is more severe, and is classed as an extreme recession lasting two or more years. In a depression, economic growth falls, there is a decrease in available credit, a significant increase in unemployment, and there is little consumer confidence.

Limitations of GDP as a measure

At school, your test results alone don't always paint a true picture of your performance. Most of the time, good performance can only be assessed by looking at a range of different measures, like your attitude and behaviour in class, and your relationships with your classmates.

Likewise, GDP alone does not accurately assess the true performance of the economy. Producing more goods and services may have some undesirable environmental and social consequences. All of the factors in the table below are not considered when calculating GDP. Prioritise what you consider to be the most important factors for a worthwhile life and then decide whether GDP alone is a good measure of progress in Australia.



Source 2 Boys collect bricks during the Great Depression (1929–1939). At the time, young people found it easier to get jobs, but as they got older their work options reduced. In mid-1932 almost 32 per cent of Australians were out of work.

Annual percentage change in real GDP for Australia

Year	2010	2011	2012	2013	2014 (a)	2014 (b)
Annual percentage change	2.4	2.6	3.6	2.0	2.6	2.4

Source 3 **Source:** ABS, the IMF and various international sources. (a) All recent data subject to revision; (b) IMF/EIU forecast.

Important factors for a worthwhile life

Factors	Priority 1–8 (number 1 being the highest priority)
Enough leisure time	
Spending time with family and friends	
Contributing to the community	
A job that is rewarding	
Enjoying nature	
Good health	
A pollution-free environment	
Income and wealth are distributed fairly in society	

Source 4

Check your learning 12.1

- Remember and understand**
 - 1 What does GDP stand for?
 - 2 Why do we measure GDP?
 - 3 List at least three limitations of GDP as a measure of the nation's progress.
 - 4 What is the definition of an economic recession?
 - 5 What is the definition of an economic depression?
- Apply and analyse**
 - 6 Explain the consequences when there are two or more quarters of negative growth in GDP.
 - 7 What percentage change in GDP is considered suitable by economists?
- 8 How might producing more and more goods and services each year affect our environment?
 - 9 Explain why the pursuit of increasing production can affect a citizen's health and welfare?**Evaluate and create**
 - 10 Refer to the chart pack at the Reserve Bank's website and find the latest annual and quarterly GDP figures. Describe how GDP has changed since 2015.
 - 11 Create a diagram showing that one in three people were unemployed during the Great Depression.
 - 12 Draw a picture or create an image that clearly shows how increases in GDP can lead to increased employment and a better standard of living.

12.2 Measuring price changes in the Australian economy – inflation

Inflation occurs when there is an increase in the general level of prices paid for goods and services over a certain period of time. Usually we measure the change in prices on a yearly basis. Rising prices means the consumer must pay more for goods and services if they want to continue to consume the same amount and maintain their standard of living. For example, \$100 spent on goods and services in 1980 would cost \$408.63 in 2015 (assuming an average inflation rate of 4.1 per cent over those 35 years). It must be remembered, however, that wages and salaries do increase. In 1980, the average weekly wage (before tax) for a man was \$245.70 and in May 2015 it was \$1674.80.

Inflation is thought to be sufficiently low if it does not exceed the Reserve Bank and Treasury target of 2–3 per cent per year (see Source 3).

Reasons for inflation

A major factor causing rising prices is stronger demand in the economy for goods and services. This stronger demand can lead to shortages of goods and services with companies unable to keep up with the demand for their products and therefore prices increase. Increased spending might be due to:

- consumers feeling confident about their income and employment in the future
- businesses feeling confident about the future – they may therefore expand their business operations, employ more staff and invest in better capital equipment
- trading partners such as China performing well and demanding our exported goods and services
- relatively low **interest rates** encouraging consumers and business to borrow more in order to spend
- lower taxes and increased government spending may also lead to increased demand and therefore expenditure.

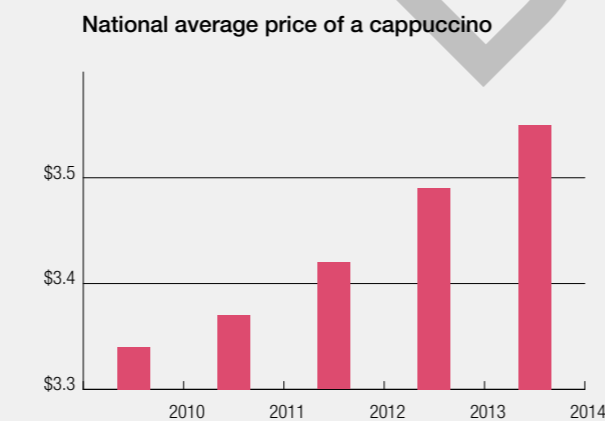
Inflation may also occur due to increasing costs. If wages increase this extra cost might be passed on to consumers in the form of higher prices. Higher taxes and higher interest rates on money borrowed may also lead to increased costs that businesses must bear.

casestudy

Have you noticed how much you pay for a cup of coffee?

Inflation refers to the rise in the general level of prices, not just the price of a can of Coke or a cup of coffee. Nevertheless it's interesting to look at the price of frequently consumed items such as a cappuccino. A Brisbane coffee machine supplier, Gilkatho, started a coffee price index in 2003. They first started monitoring coffee prices in Brisbane in 2003 and now monitor the major capital cities in Australia. In the last quarter of 2010 the average price of a takeaway cappuccino in Melbourne was \$3.15. The average cost of a cappuccino in Melbourne is now well over \$3.50. The most expensive place to buy a cappuccino is Perth and the least expensive is Sydney.

If you think your coffee is already expensive, the news is that the price of coffee is likely to increase soon. Emerging markets like China, India and Brazil may start demanding more coffee, resulting in rising coffee bean prices (the key raw ingredient used to make cappuccino). Added to this is the drought in Brazil. Brazil supplies one third of the world's coffee so it's likely a shortage will drive coffee bean prices up.



Source 1 The average price of a takeaway cappuccino has increased by just over 7 per cent in recent years (Data derived from the Gilkatho Cappuccino Price Index™).

Inflation winners

High-income earners – people with jobs, whose incomes increase at the same rate or faster than inflation

Borrowers – rising prices means it may be better to borrow with a fixed interest rate and make the purchase now

Importers – the price of imported goods may be cheaper than the price of goods produced in Australia

Inflation losers

Low- to middle-income earners – people on incomes that do not increase as fast as inflation, like part time workers, the unemployed and pensioners

Bank savers – money sitting in the bank may not buy as much as it previously did due to price rises

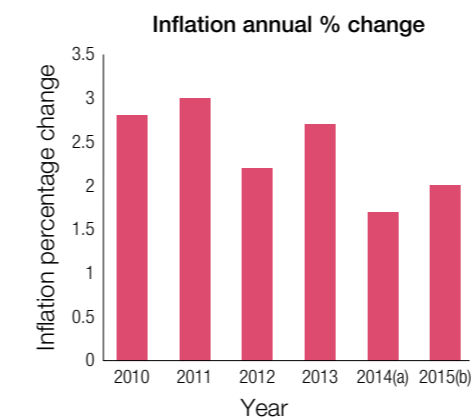
Exporters – as exported goods become more expensive, demand from overseas consumers will fall

Source 2 Higher inflation rates affect purchasing power, adversely affecting some groups in our community, meaning some people benefit while others don't.

Businesses using imported raw materials may also have to pay more if the Australian dollar falls. An increase in oil or energy prices can also have a big impact on costs such as transportation for many businesses.

Measuring inflation – the Consumer Price Index (CPI)

The Australian Bureau of Statistics measures inflation by using the **Consumer Price Index (CPI)**. The CPI measures the price change of a typical basket of goods and services purchased by Australian households every quarter. The change in these prices from one quarter to another is referred to as the inflation rate. We therefore know the rate at which prices are changing in the economy.



Source 3 Compiled by the Trade Advocacy and Statistics Section, DFAT, using the latest data from the ABS, the IMF and various international sources.

Check your learning 12.2

Remember and understand

- 1 What is inflation?
- 2 Why does inflation reduce our ability to purchase as much as before with the same amount of money?
- 3 What is a sufficiently low level of inflation according to the Reserve Bank of Australia?
- 4 How is inflation measured in Australia?

Apply and analyse

- 5 Which of the following factors may contribute to an increase in inflation caused by strong demand?
 - a Consumer confidence falls.
 - b Business confidence rises.
 - c Interest rates rise
 - d The government increases income tax.
- 6 Why would an increase in the cost of coffee beans lead to higher cappuccino prices?
- 7 Why are pensioners more likely to be affected by higher inflation rates compared to employed people?

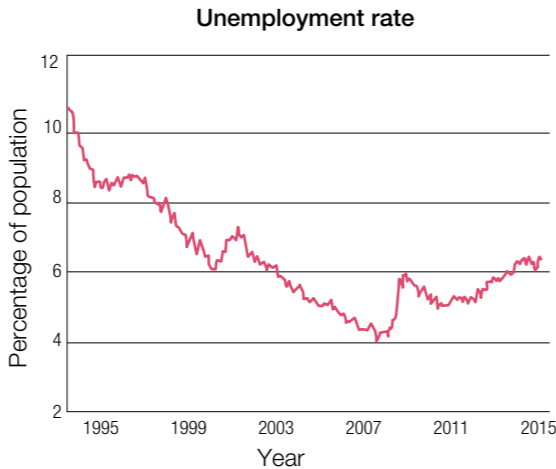
Evaluate and create

- 8 Find out what hyperinflation means and give an example of one country that experienced it. Write a paragraph describing how it was affected.
- 9 Think of at least three items you have purchased in the past that now cost more to buy. Explain why the price for these items may have increased.

12.3 Measuring participation in the Australian economy – the unemployment rate

According to the Australian Bureau of Statistics (ABS), a person only needs to be employed for one hour per week to be considered ‘employed’. This includes all Australians aged 15 years and over, from teenagers (who might mow lawns or deliver newspapers) to older people (who might work as school crossing supervisors or classroom assistants).

An important indicator of how well the Australian economy is performing is the **unemployment rate**; the percentage of people in the labour force who are unemployed. Source 1 shows that Australia’s unemployment rate was over 10 per cent at the beginning of the 90s but in 2015 was just over 6 per cent.

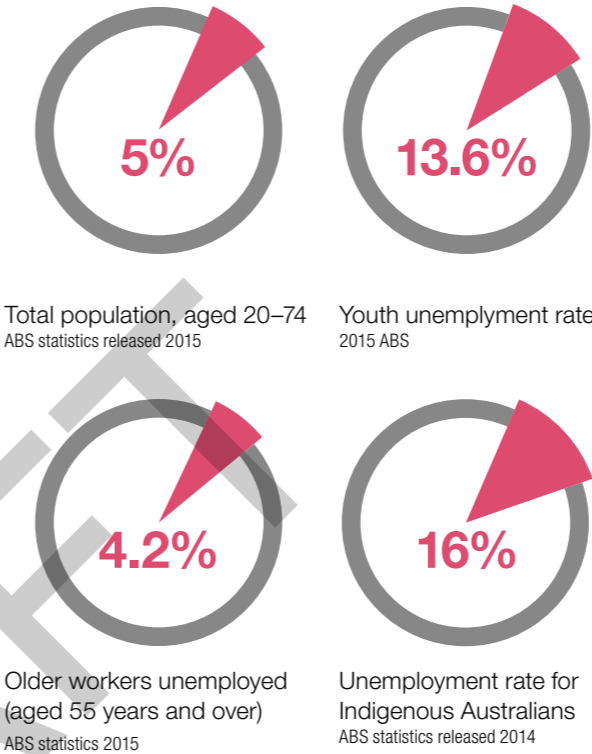


Source 1 Australia’s unemployment rate fell from over 10 per cent in the early 90s to under 5 per cent in the mid-2000s. In 2015, it sits at just over 6 per cent.



Source 2 ABS labour force definitions

Overall male and female unemployment rate



Source 4 Some key unemployment statistics in Australia in 2015

When the total unemployment rate in Australia is high, the government collects less revenue in the form of taxes and must also pay more to assist the unemployed in the form of social benefits (e.g. unemployment payments) and welfare programs (e.g. social housing). There are, of course, a range of other social consequences associated with high unemployment rates, such as a reduced standard of living, loss of skills from the workforce, and the possible psychological effects of not working (such as depression).

It is useful to look at unemployment rates for various groups in society as an economic and social indicator of how well our economy is performing. Source 4 provides a snapshot of unemployment for various groups.

Causes of unemployment

There are many causes of unemployment. When production or GDP is weak and spending in the economy has decreased, businesses may cease to hire new staff or cut back on staff in order to save money and stay in business. Unemployment may also rise because of factors such as increased competition from overseas, making it difficult for Australian businesses to compete. Businesses may take their operations offshore (to other countries) or may close down. Labour-saving technology may also be introduced which may lead to unemployment, even if it is in the short term.

Check your learning 12.3

Remember and understand

- 1 How has the unemployment rate in Australia changed since the early 90s?
- 2 List some of the social consequences of unemployment.

Apply and analyse

- 3 Who out of the following people would be considered to be unemployed?
 - a Abbas wants to work but did not look for a job because he is busy painting his own house.
 - b Babette works for four hours after school on a Friday night.
 - c John lost his job but has been attending job interviews and is ready to start work any time.
- 4 Compare the total unemployment rate (Source 4) to the Indigenous unemployment rate. Why is this statistic concerning?

- 5 Jot down at least four examples where machines have reduced the need for labour.
- 6 What barrier might people aged 55 years and over have to gaining employment?
- 7 Why are lower levels of production likely to result in increased unemployment?
- 8 Explain how unemployment affects government revenue.

Evaluate and create

- 9 In pairs, brainstorm reasons why the youth unemployment rate is more than triple the total unemployment rate. See if you can think of any strategies to address this imbalance.
- 10 Read the following statement and write a paragraph responding to its message.

A business that doesn’t take advantage of automation risks closing down and then no one will be employed in that business.

casestudy

Will robots take our jobs in the future?

According to a recent study conducted at Oxford University, nations in the **industrialised** world like Australia could lose half of all jobs to **automation**. Automation is when a machine does the work of a human. Automation is already impacting the mining industry, where half of the iron ore in the Pilbara is being



Source 3 Robots are now used in many fields and industries such as medicine, manufacturing, the military and the police. This robot is being used by the Civil Defence Force in Singapore to diffuse and dispose of a bomb during a training drill.

transported by driverless robots. One of the country’s largest port operators, Patrick Stevedores, is also set to slash its workforce by employing driverless robots at the port.

The big advantage to business is the prospect of cutting labour costs and therefore remaining competitive on the world market. Australia’s largest brickworks, Austral, now employs two robots that work 24 hours a day, 365 days of the year, stacking 75 million bricks. It would have normally taken ten men at a time working eight-hour shifts to complete this same amount of work.

Some experts say that the advance in technology means that the type of work we do is changing. There will be fewer low-skilled jobs but the opportunity to do higher-skilled work that robots cannot do will provide increased opportunities for some.

12A rich task

Youth unemployment

The youth unemployment rate in Australia is over 13 per cent – that’s more than double the general unemployment rate according to ABS figures released in 2015. Some geographical regions, however, suffer higher rates of youth unemployment.

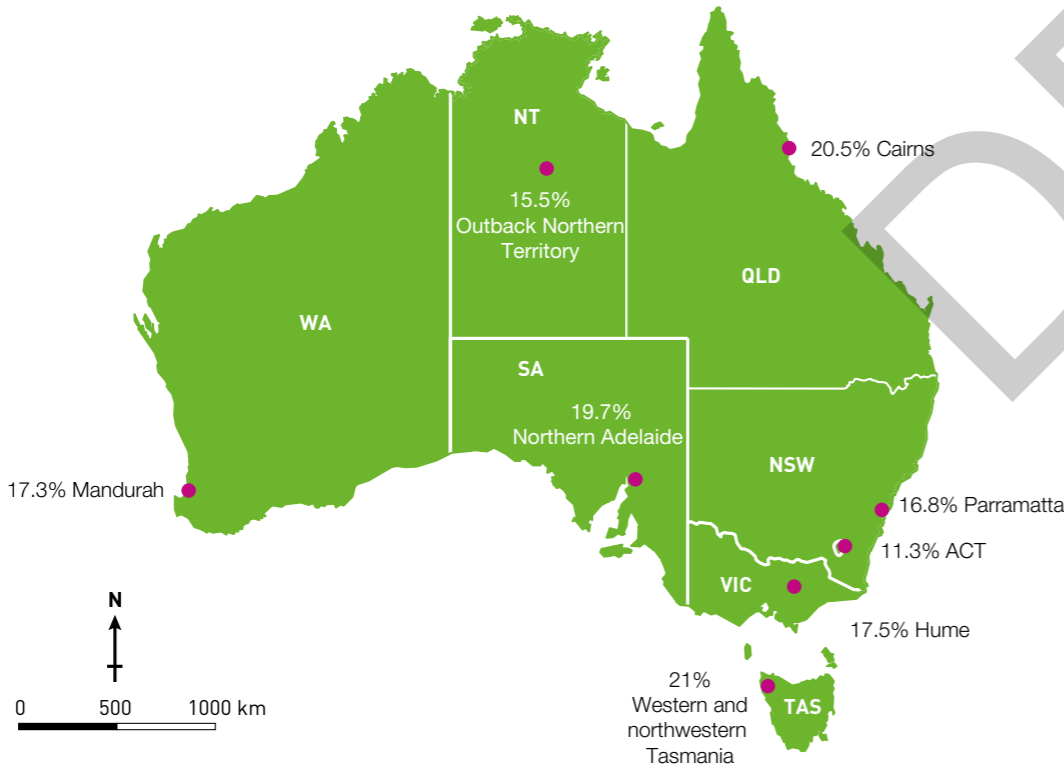
Technological change has contributed to youth unemployment. Jobs like working on a cash register, or becoming a sales assistant, a filing clerk or a typist are no longer as plentiful as they once were. This has meant that many young people have found it difficult to ‘get their foot in the door’ and gain much needed work experience. Professor Phil Lewis at the University of Canberra says,

‘Employers increasingly want people with skills and experience and that’s a challenge for young people... A young person who leaves school in year 10 would be very lucky to find a job these days.’



Source 2 Work not only builds a person’s self-esteem but their bank balance and future. While youth unemployment in Australia is over 13 per cent, in Spain nearly half of those under 30 years of age are unemployed. Many young people in Spain have no hope for their future. This young man is writing ‘Busco Trabajo’, which means ‘looking for work’.

Youth unemployment around Australia



Source 1 Western and northwestern Tasmania suffer higher youth unemployment than anywhere else in Australia, with Cairns affected almost as severely.

skilldrill

Formulating questions about an economic issue

Formulating questions is an important skill which will help you investigate an economic issue on your own. The questions that you generate will frame or direct the research that you then undertake.

Once you have established the economic issue you would like to explore, it is useful to generate one broad, overarching question to guide your inquiry. For example, if the economic issue was ‘the problem of youth unemployment’, the question posed might be, ‘Why is youth unemployment a problem in Australia?’.

After that, you need to generate more specific questions that are related to your overall inquiry question, and a mixture of question types.

- Step 1** Identify the economic issue you wish to explore.
- Step 2** Decide on your broad, overarching question.
- Step 3** Generate some closed (or simple) questions – for example, ‘Are youth more likely to be unemployed than others in a higher age brackets?’
- Step 4** Generate some open (or probing) questions – for example, ‘What are the consequences of youth unemployment?’

1: Devise an overarching inquiry question	
2: Make a list of what you already know about this issue and then create sub-questions related to each point	Sub-questions
Point 1	Sub-questions related to point 1
Point 2	Sub-questions related to point 2
Point 3	Sub-questions related to point 3
3: Make a list of what you don’t know about this issue and then create sub-questions related to each point	
Point 4	Sub-questions related to point 4
Point 5	Sub-questions related to point 5
Point 6	Sub-questions related to point 6

Source 3 Process for generating questions about an economic issue

Extend your understanding

- 1 Explore the issue of Indigenous unemployment in Australia. Propose an overarching or broad question first and then fill in a table similar to Source 3 to help guide you through your research. Use the Internet to find the answers to the questions you have posed.

12.4 Australia's economic scorecard

The performance of an economy is sometimes measured by how well it compares to other economies around the world. Australia ranked 12th in the world in terms of GDP (see Source 2) but is still a relatively small economy, responsible for around 2 per cent of the world's production. Let's look at how well Australia compared with other countries in terms of achieving low unemployment and inflation rates and higher economic growth.



Source 1 Australia's long period of uninterrupted economic growth has contributed to the boom in high-rise building for offices and apartments, particularly in cities like Melbourne.

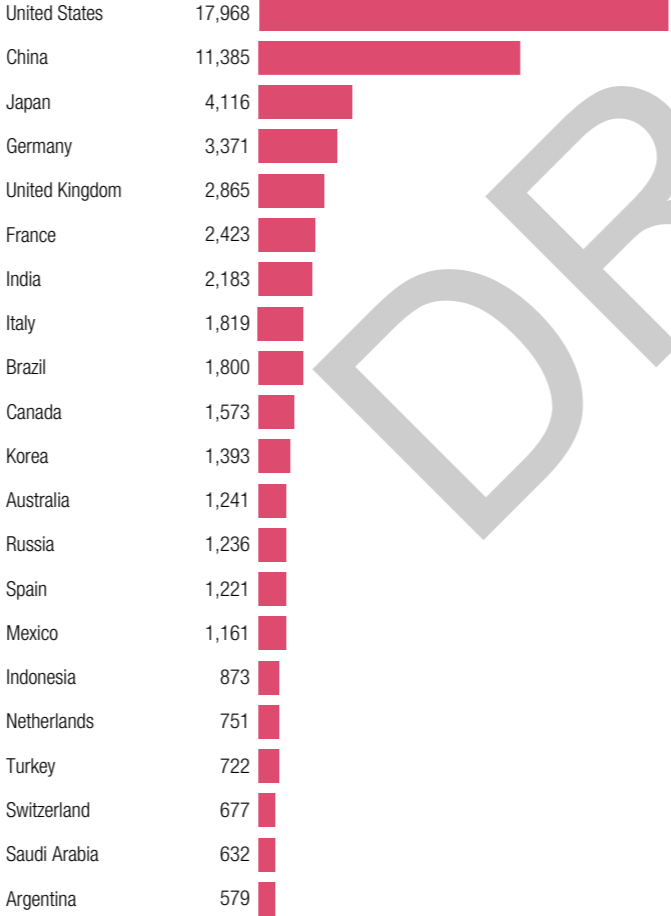
The unemployment rate

Australia has a relatively low rate of unemployment compared to other countries (see Source 3). In 2014 it ranked the fifteenth-lowest out of 36 countries using unemployment statistics released by the OECD (Organisation for Economic Co-operation and Development). Korea had the lowest unemployment rate (3.5 per cent) and Greece had the highest unemployment rate (26.3 per cent). The unemployment rate according to Reserve Bank figures released in 2016 is 5.8 per cent.

Gross Domestic Product (GDP)

Australia has experienced uninterrupted economic growth over the past 25 years. This sets a record that has not yet been equalled by any other developed nation in the world. GDP fell in many developed countries during the Global Financial Crisis of 2007–2008 (a time when many businesses collapsed and consumer confidence was very low), but Australia was one of the few countries that still experienced positive economic growth. It is forecast that Australia's economy will continue to grow, with GDP forecast to increase between 3 and 4.5 per cent by June 2017.

GDP 2015, current prices (billion USD)



Source 2 Gross Domestic Product 2015 – IMF World Economic Outlook (WEO), October 2015

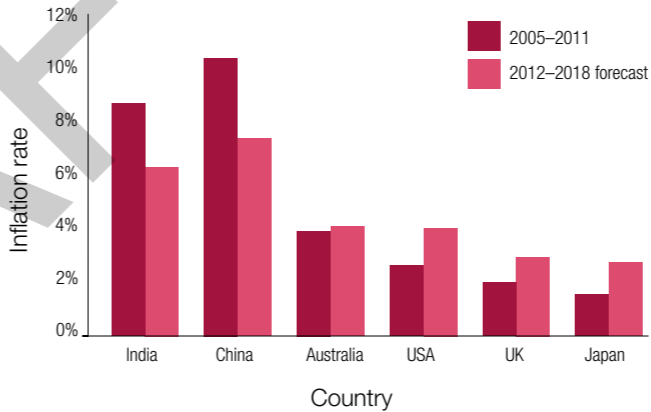
OECD unemployment rates

Country	2007	2008	2009	2010	2011	2012	2013	2014 (Feb figures)
Australia	4.4	4.2	5.6	5.2	5.11	5.2	5.7	6.0
United Kingdom	5.3	5.7	7.6	7.8	8.1	7.9	7.5	6.6
United States	4.6	5.8	9.3	9.6	9	8.1	7.4	6.7
Germany	8.4	7.3	7.8	7.1	6	5.5	5.3	5.2

Source 3 These unemployment rates indicate the percentage of the labour force that is unemployed and are seasonally adjusted. This means the data has been corrected to allow for some sort of comparison.

Inflation

Source 4 shows the inflation rate for selected countries. Australia and trading partners such as China and the United States have experienced relatively low levels of inflation in recent years.



Source 4 This graph is derived from the International Monetary Fund World Economic Outlook Database, October 2014, Austrade



Source 5 When prices rise, we can no longer buy as much as we previously did for the same amount of money.

Check your learning 12.4

Remember and understand

- 1 Is Australia a large economy by world standards? Give an explanation for your answer.
- 2 Where did Australia rank in terms of its share of world GDP in 2015?
- 3 Where did Australia rank with other countries in terms of its unemployment rate in 2014?

Apply and analyse

- 4 Refer to Source 4. Which two countries are forecast to achieve the highest economic growth in the period from 2015 to 2018?

- 5 How did the Australian economy perform compared to other countries during the Global Financial Crisis in terms of economic growth?

Evaluate and create

- 6 How does the performance of the Australian economy compare to the performance of other economies? Write a short analysis based on your reading.

12.5 Productivity

Productivity means that the same or greater quantity of goods and services are produced using fewer resources. Productivity measures how efficiently resources are used to produce a given level of output. Source 1 uses a simple example of increasing the productivity of producing apples. The need for labour may be reduced by using apple-picking machines, and the need for natural resources such as water may be reduced by installing a more sophisticated irrigation system, for example. A business can increase its productivity by using its labour and capital resource more effectively and improving its business processes.

Labour productivity

Labour productivity measures the amount of goods and services that a worker produces in a given amount of time. A business might take action to increase the productivity of its workforce in the following areas.

Management practice

Managers are the leaders of a business, responsible for coordinating employees and using capital resources to optimise profit. There is a clear link between the quality of managers and productivity. Research suggests that Australian managers need to devote more attention to their people management skills. Good people managers attract the right employees to their business, retain them and develop their talent. Good people managers also reward employees who perform well and do not allow poor performers to continue in their roles.

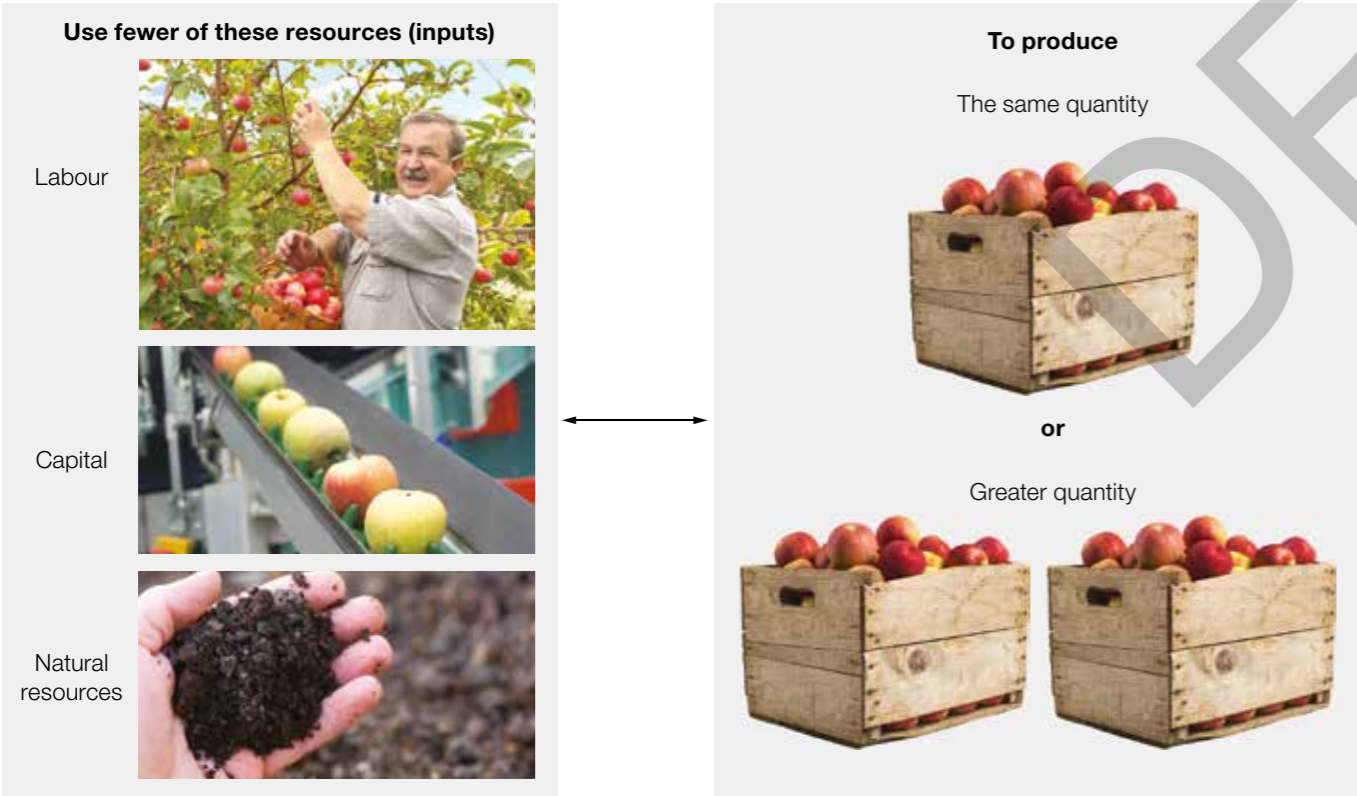
Training

Employees who develop better skills and knowledge are likely to improve labour productivity. Developing employee skills and knowledge may take place through attending training (either on or off the job) or participating in mobile learning using electronic



Source 2 Flexible work practices can improve employee morale and productivity.

Apple productivity



Source 1 Productivity is about extracting the same or a greater amount of output from less input.

devices such as computers, MP3 players, notebooks, mobile phones and tablets. Employees can also gain new skills and knowledge through job rotation, where an employee experiences what it is like to undertake different jobs within the business. They may also experience job redesign, where work responsibilities and tasks for particular jobs are changed, giving the employee the opportunity to gain broader employment experience.

Mentoring programs, where a more experienced employee provides guidance and support to a less experienced employee, can also increase labour productivity. Secondment is another way to develop an employee and may involve an employee working in another organisation temporarily. Employees who develop their skills and knowledge may experience higher levels of job satisfaction, leading to reduced staff turnover (staff leaving the business) and absenteeism. Skilled staff are better able to serve customers and handle equipment required to do their job.

Workplace culture and flexibility

Each business has its own way of conducting business. A business's 'culture' is influenced by such things as values, beliefs, the vision for the business, and habits. If an organisation is considered to be a good place to work labour productivity is likely to be higher.

A business might also improve productivity by providing employees with the support they need to do their job. Supporting the employee involves providing the right equipment to do the job and providing an appropriate work environment. Some businesses allow their employees to work offsite (such as working at home). In some cases this is thought to improve productivity as it provides the employee with more flexibility. Less time is spent commuting and a quieter work environment may mean more work is completed.

Performance appraisal and feedback

Performance appraisal is an assessment or evaluation of how well an employee is performing in their job, based on criteria that have been predetermined by both the employee and employer. For example, a sales representative may have a monthly and annual target to sell a certain number of products or earn a certain amount of revenue for the business. Performance appraisal provides important feedback to the employee and makes them accountable to the business. It may assist in improving job performance, provided feedback is constructive and given on a regular basis.

Employee Incentive schemes

Employees may be offered a financial incentive over and above their normal wage for meeting agreed performance targets. Incentives take many forms, such as cash bonuses, shares in the business or non-monetary rewards such as vacations or additional paid leave. The incentive is linked to performance and therefore can improve productivity in a business.

Capital productivity

Capital is used in the production of goods and services and includes such things as machinery, computers, mines, tools and buildings. Capital productivity measures the amount of goods and services that can be produced using a fixed amount of capital in a given amount of time. Businesses can improve capital productivity in a number of ways.

Technology

Businesses can increase their productivity by using equipment that uses the most advanced technology available in order to save time and cost. See page XX for more information.

Improving processes

All businesses use a number of processes to produce a product (either a good or a service). A simple example of a process is taking an order at a restaurant. A waiter may take the order, using a pen and paper or a computer, or the customer may need to go to the counter to order. If customers provide feedback that it takes too long to order a meal the owner must improve business processes. Certain processes are also used to produce goods. As mentioned on page XX, some manufacturing businesses use just-in-time inventory systems so that materials arrive at the right time without the need to hold vast amounts of stock. This reduces storage costs and the possibility of waste or damage to stock. See page XX for further information about improving processes.



Source 3 Financial rewards such as bonuses and increased pay can improve worker productivity.



Source 4 Automation being used to milk cows in what is called FutureDairy. The cows enter the 16 milking points and a robotic arm washes the teats and attaches a cup so that milk can be extracted.

casestudy

The Margaret River Chocolate company

The Margaret River Chocolate company has been a business success, with the company first opening a factory in Margaret River in 1999 and then opening a second factory one year later. The first day of business took the owners by surprise when their estimated 200 customers turned out to be 2000. People love chocolate, and making a quality product and focusing on the customer has been key to productivity for the Margaret River chocolate company.



Source 5 The co-owners of the Margaret River chocolate company with one of their products

Martin Black, co-owner of the company, talks about how his company has improved productivity.

Fortunately, over the last few years we have grown our output and the choice of mid-range equipment has increased, so we have been able to increase productivity through mechanisation. We have also increased our number of outlets to give greater economies of scale, which also benefits productivity. You just have to ensure your people are valued, motivated and well-rewarded.

The company uses a range of strategies to improve productivity. Expanding the business has meant the company can produce a greater quantity of chocolate with lower per-unit costs and also has the capital to invest in more sophisticated equipment.

Labour productivity strategies at the company include providing incentives and remuneration to senior managers and ensuring the company is a great place to work. Ensuring staff are properly trained is another way the company seeks to lift productivity.

Check your learning 12.5

Remember and understand

- 1 Explain what productivity means.
- 2 List at least five ways labour productivity could be increased.
- 3 How can capital resources be used to increase productivity?
- 4 Name two strategies the Margaret River chocolate company used to improve productivity.
- 5 What is meant by the 'triple bottom line'?

Apply and analyse

- 6 Suggest how the following businesses could improve their productivity.
 - a Antoinette owns and runs a bakery. Her product is the best there is but customers have to queue for a long time to be served.
 - b Joel owns his own hairdressing business and is the only worker. He does everything from making the coffee to answering the phone. He regularly runs late and his customers complain about this.
 - c Deb runs her own accountancy practice. She has two accountants working for her but can't keep up with customer demand around tax time.

- d Aaral is a busy and successful restaurateur. She recently hired extra waiting staff but noticed how rude they are to customers.
- e Tom runs a mowing business but when he is mowing lawns he does not answer the phone and loses potential customers.
- f Jack is the Chief Executive Officer (CEO) of a large firm. He arrives early and leaves late and can be heard shouting at everyone when he is under stress.

Evaluate and create

- 7 Select a business you frequently use and create a flow chart that shows the process used to serve customers or the process used to take a booking. Suggest any productivity improvements you could make to the business's processes.
- 8 Look at the way you study at school and at home. Write down your study habits, taking into consideration such things as when and where you study, why you study, how you try to remember facts, and any aids you use. How could you improve the processes you use to study?

12B rich task

The story behind our economic growth

Australia's good record in economic growth has largely been dependent on the fact that it has abundant **natural resources**. Natural resources include such things as fossil fuels, minerals, forests, farmland and fisheries. The unfortunate side effect of this is that these resources become depleted over time and their extraction can cause environmental damage.



Source 1 Australia has abundant natural resources, the exports of which have boosted our economy.

The *Inclusive Wealth Index* (IWI) measures whether our production is reducing the resources we need to produce goods and services in the future. Using the IWI, the growth rate of GDP per person was 47 per cent from 1990 to 2008 in Australia. When you take into consideration the effect it had on our natural resources (referred to as natural capital), GDP per person was reduced to 2 per cent.

“We need new indicators that tell us if we are destroying the productive base that supports our well-being.”

Source 3 Partha Dasgupta and Anantha Duraiappah *Inclusive Wealth Report 2012*

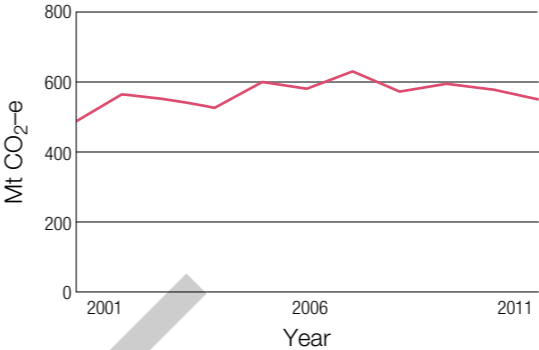
The Australian Bureau of Statistics collects data on measuring Australia's progress. Australia has regressed, or gone backwards, in the area of sustainably managing the environment. Source 4 shows Australia's net greenhouse gas emissions, up to 2011. Australia's net emissions have increased by 11 per cent since 2001, according to figures released by the ABS in 2013. Greenhouse gas emissions such as carbon dioxide and methane are released into the atmosphere and are caused by pursuing more production each year.

Source 2 provides in pictorial form, some of the future ramifications of increased greenhouse gas emissions.



Source 2 An increase in greenhouse gas emissions has serious consequences.

Australia's net greenhouse gas emissions, excluding wildfires



Source 4 Measures of Australia's progress, 2013, ABS

skilldrill

Preparing an infographic

An increasingly popular way for economists to present their findings and data is to prepare an infographic. Infographics use pictures and symbols to represent complex ideas and data so that information is clear and quickly accessible.

- Step 1** Decide on a topic and the message that you want to communicate to your audience. In the infographic in Source 2, for example, the key message is that production causes greenhouse gases and adversely effects the environment we live in.
- Step 2** Research your topic and collect data that helps to communicate your key idea. Try not to have too much data; don't include more than 10 key facts or numbers.
- Step 3** Use a simple picture to communicate each of your key facts as shown in Source 2.

Extend your understanding

- 1 Create another infographic on the effects of pursuing higher economic growth rates through increased production. Pick anyone of the following topics and do some initial research about the topic before creating your infographic.
- Deforestation
 - Desertification
 - Extinction of species

Step 4 Lay your graphics out in a logical way that links together the key ideas. Make sure your infographic is not too cluttered. Give your infographic a catchy title that communicates your message.

Apply the skill

- 1 Design and present an infographic that compares the performance of the Australian economy with the performance of another country or countries. Use the statistics on pages 84 and 85 as the basis for your infographic. You may like to do some additional research on the Internet to find relevant statistics that enhance your infographic.
- 2 When completed, look closely at your classmates' infographics. Which techniques did others use to best present the data in a visual way? How did they make the data easier to interpret?

- Soil erosion
- Oil depletion
- Ozone depletion
- Greenhouse gas emissions
- Water pollution
- Natural hazards/natural disasters