Economic change: issues and challenges
As we shall see in this chapter, Australia’s population size and growth, along with levels of employment and unemployment, all affect our living standards. You will recall from chapter 2, pp. 00–0, that overall living standards reflect both material living standards (perhaps roughly indicated by the level of real income, production or consumption per head per year), as well as non-material living standards (determined by factors that influence the daily quality of our lives, possibly reflecting levels of pollution, crime, freedom, happiness, congestion or overcrowding).

5.1 Influences on Australia’s population size, composition and distribution

Let us start by examining the factors affecting the size and growth rate of Australia’s population.

Determinants of Australia’s population size and growth

In 1801, Australia’s white population was only 6000 (along with an estimate of between 315 000 to 750 000 Indigenous people). However, by 1901 the total population had
grown to nearly four million and to over 23 million by 2013. The ABS has also made estimates for future population growth based on various assumptions (e.g. one type of future estimate or projection assumed current rates of net migration and births). On these bases, Australia’s population could reach about 41.5 million by 2061, and 53.6 million by 2101. This and other trends in Australia’s population and its sources are illustrated below in figures 5.1 and 5.2.

Influences on Australia’s population size and growth
As revealed in figure 5.1, Australia’s population has more than doubled in size over the past 50 years. In addition, figure 5.2, shows that there are two main causes of this massive growth in the size of our population. First, the rate of natural increase today accounts for around 42 per cent of annual population growth, while the rate of net migration fills the remaining 58 per cent.

The rate of natural increase
The rate of natural increase represents the birth rate minus the death rate. In turn, the rate of natural increase is affected by many factors including social, economic and political conditions in Australia. More specifically, developments in health and medical science, nutrition, education, reliable contraception, fertility rates (average number of
babies born per woman) and the roles of men and women in the home and workplace have affected the birth or death rates, along with the level of economic prosperity (e.g. inflation, unemployment and depressions), the costs of raising children, government financial assistance to families (including the ‘baby bonus’), and community attitudes towards family size and age of marriage. Figure 5.3 below for instance, shows the dramatic rise in life expectancy at birth for males and females between 1884 and 2009.

Furthermore, the age distribution of the population also has a great effect. In more recent times, Australia is described as an ageing population (a greying population) where the decline in the birth rate (except perhaps for a ‘mini baby boom’ during 2007–13), smaller families and the increase in life expectancy, have together meant that generally, the average age is rising.

The birth rate is just one factor that affects population growth.

The rate of net migration

The rate of net migration reflects the rate of immigration (people coming into Australia) minus the rate of emigration (people leaving Australia). Historically, people have moved from one country to another in order to improve their economic, social and political conditions. These conditions can operate as both ‘push factors’ (in the country of departure) and ‘pull factors’ (in the country of destination) affecting migration levels; for instance, after the major world wars during the 1900s (i.e. 1914–18 and 1939–45).
Additionally, civil war, dictatorships, famine, terror and the lack of opportunity for improvement have also driven people to seek a new start in another country. During the period after World War II, there was assisted migration where the Australian government paid the transport costs from Europe. Today, the Australian government regulates the level of migration by setting annual immigration targets for each category of immigrant. Variations are made to the intake size, reflecting economic conditions and other circumstances. See page 000 for further details about population policies in Australia.

Between 1945 and 1965 more than two million migrants arrived in Australia. Governments at the time believed in the phrase ‘populate or perish’ and embarked on an intensive promotion campaign to entice migrants to come to Australia.

More recently, as shown in figure 5.6 below, the largest group under our migration program is skilled migration. This accounts for about 70 per cent of all immigrants. These people help to make up for Australia’s skills shortages that have been experienced recently in areas such as the trades, professionals and business. The immigration target also includes family and humanitarian categories.

**FIGURE 5.5** After World War II, many immigrants came to Australia from Europe, some encouraged by the federal government’s policy of paying travel costs. This policy was designed to increase Australia’s population size, since it was felt that we were underpopulated.

**Skills shortages** exist from time to time where the supply of some occupations (e.g. engineers, electricians, machinists and doctors) is not enough to fill the number of job vacancies that are on offer in these areas.

**FIGURE 5.6** Trends in Australian overall immigration by government target category, 1998–99 to 2012–13

Factors affecting the distribution and composition of Australia’s population

The distribution of the population refers to the way our people are spread between different age groups, genders, ethnic backgrounds or races, states and regions (e.g. urban and rural, metropolitan and non-metropolitan). This also helps to shape the makeup, characteristics or composition of the population.

Age–sex distribution

The age–sex distribution for Australia can be examined using population pyramids. As shown in figure 5.7 below, these graphs are shaped like a pyramid that is split in half from top to bottom. One side of the pyramid represents the number of males (expressed in thousands or as a percentage of total population as shown in figure 5.7) in each successive age group (starting at zero years at the bottom and moving up to 85 plus) and the other side shows the number or percentage of females. Normally, the two sides of a population pyramid slope inwards towards the top for both males and females, because the number of people in each age group declines. This shape reflects accidental deaths, sickness and the effects of old age. However, in some affluent countries like Australia, this normal shape is distorted by various events. These developments involve:

• economic factors including the cost or affordability of having children such as severe depressions (high unemployment) and booms (rapid inflation)
• political factors such as the level of government assistance to families with children, the government’s immigration target and attitude to asylum-seekers, and the effects of wars where lives are lost
• social factors including attitudes to family size, age of marriage, acceptability and reliability of contraception, the roles of women in the labour force and at home, and post-war baby booms where, commonly, the birth rate temporarily surges.

In Australia’s case, the effects of many of these events can be easily seen by variations in the relative lengths of the horizontal bars representing each age group in figure 5.7.

Over the past 85 years, there have been many specific events that have affected Australia’s rate of population growth, thereby modifying the shape of our population pyramid for 2010. Sometimes these events increased the size of a particular age group. However, other events tended to shrink the size of particular age group. To illustrate the point, see if you can spot the impact of the events indicated in table 5.1 (see p. 180) on Australia’s 2010 population pyramid.

![Population Pyramid Graph](http://www.abs.gov.au/Ausstats/abs@.nsf/mf/3201.0)
### TABLE 5.1 Some events affecting Australia’s population pyramid

<table>
<thead>
<tr>
<th>Events that increased the number of people in a given age group(s) for 2010</th>
<th>Events that decreased the number of people in a given age group(s) for 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effects of the baby boom after the end of WWII (1946 to early 1960s or those in the 50- to 64-year age groups in 2010)</td>
<td>The use of effective oral contraceptives (1970s on: those up to the 40 age group in 2010)</td>
</tr>
<tr>
<td>Government assisted and paid migration program (late 1940s to 1960s or those in the 45–69 age groups in 2010)</td>
<td>The impact of women’s liberation (especially 1970s and 1980s, and onwards or those up to the 30–40 age groups in 2010)</td>
</tr>
<tr>
<td>Increased annual immigration targets set by the government (e.g., especially during the 1990s and 2000s or those in 50–60 age groups in 2010)</td>
<td>Acceptance of smaller families (1970s on or those up to the 40 age group in 2010)</td>
</tr>
<tr>
<td>The federal government’s ‘baby bonus’ (starting mid-2000s or those in the 0–4 age group in 2010)</td>
<td>Reduced fertility rates (1970s on) and later average age of marriage (1980s and 1990s on)</td>
</tr>
<tr>
<td>Improvements in nutrition and medical treatment leading to an increase in life expectancy (especially 1990s on, or those in all age groups, but especially the older age groups)</td>
<td>The effect of the Great Depression of 1929–34 (those in the 75–79 age group in 2010)</td>
</tr>
</tbody>
</table>

Perhaps the most noticeable observation about Australia’s population pyramid is that we have an ageing population where we find a larger percentage of the total population in older age groups located towards the top half of the pyramid. As mentioned, our ageing population mostly reflects declining birth rates, especially since the 1970s, and improved aged health care. The economic impacts of an ageing population are discussed on pp. 000–0.

**Distribution by country of birth**

The distribution of our population by country of birth involves considering the percentage of people born locally, as opposed to those born overseas, along with the range of countries represented by those coming from abroad.

![Histogram of Australia’s population by place of birth, 1901–02 to 2012–13](image)

*Figure 5.8 Distribution of Australia’s population by place of birth, 1901–02 to 2012–13

*Sources: Data derived from ABS 3412.0, 1301.0 and others.*

In addition, as shown in figure 5.9, the following countries contributed the most significant numbers of overseas-born to Australia’s permanent resident population: United Kingdom and Ireland, New Zealand, Italy, China, Vietnam, Greece, India, Philippines, Germany, South Africa, Malaysia, Netherlands, Lebanon and Hong Kong.

**Ageing population** refers to the increasing proportion of people in older age groups, relative to those in younger age groups.

**Distribution of our population by country of birth** involves considering the percentage of people born locally, as opposed to those born overseas. It also includes the range of countries represented by those coming from abroad.

**Perhaps the most noticeable observation about Australia’s population pyramid is that we have an ageing population where we find a larger percentage of the total population in older age groups located towards the top half of the pyramid. As mentioned, our ageing population mostly reflects declining birth rates, especially since the 1970s, and improved aged health care. The economic impacts of an ageing population are discussed on pp. 000–0.**
Geographic distribution by state

Australia’s population is distributed unevenly geographically between states. Over 33 per cent live in New South Wales, 25 per cent in Victoria, 20 per cent in Queensland, 10 per cent in Western Australia, 8 per cent in South Australia, 2 per cent in Tasmania and the balance in the Northern Territory and the Australian Capital Territory. Additionally, population growth has been fastest in Queensland, New South Wales and Victoria, and slowest in Tasmania and South Australia. To a large extent, this unevenness has been caused by differences in interstate migration, the age distribution and the growth in employment opportunities.

Distribution between rural and urban

One interesting development over the years is the shift in Australia’s population from rural to urban areas. It is interesting to note that, in 1910, 43 per cent of Australians lived in rural areas. However, by 1946 the figure was around 30 per cent, while most recently it was down to only 10 per cent. Figure 5.10 shows that our population is distributed unevenly in patches.

**Figure 5.9** Map showing the main countries of origin for Australia’s migrants


**Figure 5.10** The geographical distribution of Australia’s population

*Source: Year Book Australia (2010), p. 198, ABS 1301.0.*

**Check your understanding**

1. What are the two main determinants of Australia’s population size and growth?
2. What factors have affected Australia’s rate of natural increase in population? Give examples.
3. What factors have affected Australia’s rate of net migration? Give examples.
4. Identify and explain the various meanings of the term distribution of population.
5. What is a population pyramid and what conclusions can be drawn from Australia’s population pyramid?
6. What are the three key sets of factors that have affected the shape of Australia’s population pyramid?
7. Describe the following aspects of Australia’s population distribution.
   a. Distribution by country of birth
   b. Distribution by state
   c. Distribution between urban and rural
mostly down the eastern seaboard and around the capital cities located on Australia’s coastal fringe.

Try applied economic exercise 1, p. 209

5.2 The economic consequences of demographic change and their effects on living standards

You may recall that our standard of living is affected by both material wellbeing (perhaps indicated by average income or consumption per person per year) and non-material elements affecting the quality of our daily lives (possibly influenced by levels of happiness, freedom, life expectancy, crime, pollution, congestion). In this section, we will take a look at how some key demographic changes might affect our living standards.

What are the key demographic changes in Australia?

Demographic change involves trends in a nation’s population size, composition and distribution. For Australia, there have been several changes, including the following:

- The rate of population growth in Australia has been quite rapid. This is the result of natural increase (excess of births over deaths) and especially net migration (excess of immigration over emigration). However, this growth rate has generally been slower than that for say, the 1950s and 1960s.
- Australia has an ageing population because of longer life expectancy, a low birth rate, and better health and medical treatment. This also means that there has been a relative decline in the proportion of young people. Additionally, the average size of families is now smaller than in the past.
- There has been a rise in the proportion of people born overseas to over a quarter of the total population.
- Most people live on the coastal fringe in capital cities and around 60 per cent of Australia’s population lives in NSW or Victoria.

As we shall now see, demographic changes in Australia have important social and economic impacts affecting our living standards.

Non-economic effects of population trends on living standards

There is no doubting the huge social and environmental effects of Australia’s population trends, on living standards. However, while there are some benefits, there are also costs.

Cultural diversity

Post-war immigration has led to a multicultural society based on far more ethnic diversity than was the case in the past when most migrants came from the UK. Heavy migration from the Mediterranean area in the 1950s and 1960s and, more recently, higher rates of arrivals from Asia and Eastern Europe, have created a more vibrant and interesting mix of traditions, foods, fashion and customs than Anglo-Saxon culture can offer, thereby improving our overall living standards.

Reduced social cohesion as a potential cost of immigration

A possible downside of multiculturalism, according to some critics, is the loss of social cohesion. Previously, our customs, history, religion, way of life, laws and values were more commonly shared by all members of our society. Unfortunately, in periods of international conflict or stress, cracks may appear that could weaken our society, and lead to the persecution of minority groups for their beliefs. In turn, this erodes the non-material living standards of Australians.

Environmental and other costs of faster population growth

Immigration causes Australia’s population to grow more than twice as fast as it would otherwise. Like natural increase, this compounds Australia’s environmental issues. For instance, with population growing faster, resources are used up and depleted at a
higher rate. Our carbon emissions resulting from the production of goods and services are higher. This makes it harder to meet our pollution targets that were agreed under the Kyoto protocol. Cities grow outwards faster, also leading to traffic bottlenecks, increased time to get to work, stress and overcrowded public transport. In addition, there is the need to clear more land, build more water storages and create more power stations, sewerage treatments plants and waste disposal tip sites.

**Economic effects of demographic change on living standards**

Australia’s demographic trends have also produced economic effects that affect our living standards.

**A growing local market for goods and services**

A rising population size means a growing market for a whole range of goods (e.g. cars, clothing, electrical appliances, food, vegetables) and services (e.g. education, health, telecommunications, banking, property, entertainment and transport). With around 23 million people, there are now about 9 million more consumers than in 1990. This is great news for local businesses that can expand their production and employment levels to meet rising sales and growing orders for goods and services. A bigger market also helps to create *economies of large-scale production*. What this means is that it is often cheaper for a firm to produce a good or service in larger volumes, than it is to produce it on a small scale. This is because the *fixed production costs* of firms, such as those for equipment, buildings, management, advertising and product development, can be spread more thinly over more units of output. So, as the production level goes up, this lowers the *cost per unit*. The good thing about this is that the firm can sell the product both in Australia and overseas, at a cheaper or more attractive price. This can help the company increase sales, market share and profits. Moreover, a bigger market helps encourage greater levels of *specialisation* among local producers. They can concentrate their efforts to make the specific goods and services that they produce best.

**A rise in the labour force**

A bigger population helps to grow the labour force or resources available to local firms. Migrants can also help overcome the shortage of some skills. Overall, there is a rise in the supply of labour that can help fill the jobs created by the growing size of the Australian market. In addition, a rise in the supply of labour also helps to keep local wages more competitive relative to overseas levels. This encourages Australian firms to expand their business operations here, rather than going offshore in search of cheap labour.

**Changes in the allocation of resources**

Australia’s ageing population alters the way resources are allocated. An older population often wants different types of goods and services (e.g. medical and dental care, aged homes, financial planners, books and at-home entertainment, taxis and personal services) relative to those purchased by the young (e.g. fashionable clothes, the latest DVDs, rental accommodation, night clubs, education, new cars, active holidays, sporting goods). Resource allocation and the type of products made are also affected by sex (gender) and race (ethnic) ratios.

**Effects on government budgets and finances**

Without growth in the number of people of working age, the size of Australia’s *tax base* is unlikely to rise significantly. This is not a problem, provided that the cost of government welfare and services (e.g. public health,
education, housing, transport and defence) is steady. Unfortunately for Australia, this is not the case. Because of our ageing society, the federal government’s budget outlays on welfare and services are expected to rise very quickly indeed during the next 35 to 40 years. There is a big group of ‘baby-boomers’ (people born between the mid-1940s and 1950s) who are now nearing retirement. They will soon be in need of extra health care, aged services and government pensions. Additionally, our lower birth rate in the past few decades has slowed the growth in the number of taxpayers. In fact, in the three Intergenerational Reports to 2011, the treasurer pointed out that demographic developments could soon cause the federal budget to run an annual deficit of over $80 billion per year. However, if our population of working age grew at a faster rate, then this financial problem may not happen since there would be more taxpayers. This is one reason why some groups advocate encouraging higher levels of young migrants of working age (i.e. over 15 years of age).

Is there an economic optimum population size for Australia?

From time to time, commentators have raised the concept of an optimum-sized population. According to some business leaders and politicians, Australia is under-populated. They take this to mean that there are too few people available to efficiently exploit our natural and other resources. It is claimed that our optimum population is bigger. As shown in figure 5.13 below, a larger population would increase the size of the local market, promote economies of large-scale production, increase the
supply of labour resources, raise efficiency levels and lift our material living standards (i.e. the level of GDP per head). By contrast to this, some economically poor countries in Africa and elsewhere are seen as overpopulated, given their available resources.

While this concept is an interesting one that contains some truth, the optimum size for Australia’s population is not easily calculated. For example, should it be set at 25, 35 or 45 million people? For one thing, the concept considers only the short-term economic impact of population numbers on production (i.e. growth in GDP), rather than also examining the impact of extra people on our non-economic living standards. For example, can the driest continent in the world support a much bigger population without seriously attacking the environment, depleting resources available for future generations and undermining our quality of life? Already, our capital cities and urban sprawl are choked with air and noise pollution, traffic congestion, water restrictions and waste disposal problems. A significant change in lifestyle, housing, transport, work modes and recreational activities would be needed to cater for a bigger population. Would these changes make us better off non-materially and raise our overall living standards?

Another concern with the concept of an optimum population is that the ideal number of people for Australia will certainly change over a period of time. This is because our economic optimum would be affected by new discoveries (or depletion) of natural resources, and by technological developments.

5.3 An overview of population policies in Australia and internationally

Population policies relate to attempts by governments to alter the growth rate, size, age distribution and geographic distribution of a nation’s population. Population strategies vary from country to country. In this section we will review some of these policies, starting with Australia.

Australia’s population policy

Australia’s population policy dates back many years. For instance, following the end of World War II in 1945, Australia was seen as underpopulated and the slogan, ‘Populate or perish’ became well known. The arguments given at the time for growing our population, largely through government-assisted migration, were partly based on defence or strategic considerations, and partly on economic grounds where a larger labour force was needed to grow the nation’s productive capacity or production possibility frontier.

Much more recently in 2011, the Gillard Labor government presented its population policy. This policy set no target for the desirable size of Australia’s population. However, the former PM, Kevin Rudd, suggested that a population of around 35 million people or a ‘big Australia’ would be desirable.

The Coalition government under Tony Abbott appears to believe that Australia’s recent population growth rate, averaging 1.6 per cent a year, is too fast and that this should be slowed a little to the long-term average of around 1.4 per cent, or at a sustainable rate to be determined by the Productivity Commission. In particular, immigration would be a bit lower and based on an ongoing assessment of Australia’s economic needs, infrastructure capacities and environmental resources.

Despite some differences, governments on both sides of politics understand the necessity for some population growth, driven by our need to reduce two economic problems associated with an ageing population:

- Firstly, an ageing population leads to shortages of labour resources (not enough suitably qualified workers to fill

population.

FIGURE 5.14 In 2010, there was a partial change in the federal government’s attitude towards immigration, mainly because voters at that time indicated that they did not want a large population of perhaps 35 million people.
job vacancies). In turn, these limit a nation’s productive capacity (shown by the production possibility frontier) and its sustainable rate of economic growth.

- Secondly, an ageing population *weakensthe government’s budget outcome* and causes a budget deficit (where the value of government revenue is less than the value of government expenses). This is because as people get older, there are declining numbers of taxpayers (e.g. 15- to 65-year-olds) and hence revenues fall, and yet there are rising expenses involved in looking after the aged (e.g. aged care facilities, pensions, hospitals and medicines).

With these problems in mind, Australia’s population policies have included the following:

- Setting quite high annual targets for immigration
- Encouraging parents to have more children through the payment of a ‘baby bonus’ of up to $5000 per child for those on incomes of less than $75,000 per year in 2013 to be phased out in 2014.
- Using various schemes to help reduce the cost of raising children, such as funded childcare places, childcare rebates and increases in tax rebates for claims related to educational expenses. For instance, the maximum level of the Childcare Rebate in June 2014 designed to help cover the costs of pre-school aged childcare at registered centres while parents work, was around $7500 per year.

Of these measures, the use of immigration targets has been most effective in helping to grow Australia’s population and workforce. These targets involve setting a desired limit on the number of new arrivals. The target is then broken down into three sub-categories — skilled (business skills, employer sponsored, skilled independent, state sponsored), family and special humanitarian.

In addition, targets are sometimes changed to reflect economic circumstances and conditions. For instance, when there are labour shortages (for example, in the near boom conditions of 2006–08) the target is often increased, but when there is recession or rising unemployment (such as during and following the GFC in late 2008 and 2009) the target is reduced to avoid worsening unemployment. Refer back to figure 5.6 on p. 178 showing changes in Australia’s level of immigration by target category. Notice that in the four years to 2012–13, around 170,000 to 190,000 migrants arrived each year. The fastest growth came from the skilled category (consisting of employer sponsored, skilled independent, state sponsored, distinguished talent and business skills).

Indeed, skilled migrants now make up nearly 70 per cent of the total annual intake, with skills including the professions and trades. In part, this was a deliberate policy response to particular skills shortages that existed in Australia between 2006 and 2008, and to some extent in 2010–11–12, when unemployment was low and the economy was operating near its productive capacity.
China’s population policy
Since 1978, the key feature of the Chinese government’s population strategy has been the one-child policy (also called the ‘family planning policy’). Initially, this control on population was introduced to help reduce growing social, economic and environmental problems associated with rapid population growth. In particular, the policy applies to about 36 per cent of the population and mostly attempts to restrict urban couples to having only one child, thereby reducing China’s births by around 400 million, between 1979 and 2011. The effectiveness of this policy can be clearly seen in figure 5.16 below by the severe undercutting of the pyramid among younger age groups born after 1978 (when the policy commenced). This one-child policy is enforced through fines on individuals, based on family income and other factors.

In 2008, China’s National Population and Family Planning Commission announced that it intended to keep the one-child policy at least till 2018. However, in 2011 and again in 2013, there was some softening of the approach, possibly because some couples disregarded it, and perhaps also because in some regions, an ageing population was even causing labour shortages.

India’s population policy
For some years now, the Indian government has operated its National Population Policy (NPP). This policy reaffirms the right of individuals to make free, voluntary and informed choices about family size and planning. The government set up a framework for achieving key goals, including reducing the birth rate so that it was equal to the death rate, thereby stabilising India’s population size by the year 2045. In particular, the NPP focuses on meeting unmet needs for contraception and health care personnel, reducing infant mortality through immunisation and improved access to basic services (so that couples do not feel they must have such large families to ensure the survival of some of their children), and actively encouraging girls to delay marriage until they are aged 18 or 20.

5.4 The nature of employment and unemployment, paid and unpaid work
There are two types of work — paid work and unpaid or voluntary work.
**Paid work**

Paid work involves individuals selling their labour resources to businesses in the *labour market*.

The labour market is simply an institution where buyers (business firms who demand or purchase workers’ skills and efforts) and sellers of labour (most households involving people aged over 15 years) negotiate wages or pay rates. For Australia’s 12 million workers, wage levels largely depend on the operation of demand and supply in the labour market. In cases where the demand for a particular type of labour is strong and its supply is limited (e.g. successful lawyers, dentists, company managers, pilots, surgeons), workers get well paid since they are relatively scarce. However, where the demand for an occupation is weak and there is an oversupply of workers available, wages are poor (e.g. cleaners, unskilled junior workers).

**The demand for and supply of labour, and pay levels**

There are various factors affecting wage levels for paid work. Most importantly, pay rates reflect the relative scarcity of each occupation, as determined by the *conditions of demand* for and *supply* of each type of labour.

- The *demand for labour* depends on the demand for various kinds of goods and services, and overall levels of spending (AD). For example, a rise in the level of spending raises the demand for particular types of labour (the demand for labour is a *derived demand*). In turn, spending levels reflect changing consumer fashions and tastes, advertising, technology, government policy and general economic events in Australia and overseas.
- The *supply of labour* available for work reflects special occupational requirements for education, skills, experience and responsibilities, as well as more general factors like the growth rate in population (affected by the rate of natural increase and the rate of net migration), the participation rate (the percentage of people over 15 years who are able and willing to work), social attitudes, government regulations and the many other personal qualities of workers.

**Unpaid work**

Unpaid work involves individuals providing labour free of charge or on a voluntary basis, perhaps motivated by their desire to help others.

**What work do volunteers perform?**

So what work do these volunteers perform and what are the types of organisation with which they are associated? By far the largest proportion of volunteers are involved with fundraising, management, instructing, preparing or serving food, providing transport, repairing and gardening. Additionally, this volunteer work is mainly performed for community welfare organisations, sport and recreation clubs, training organisations, religious organisations and healthcare institutions, along with emergency services and environmental groups.

**Who is classified as employed and who is a volunteer?**

Interestingly, the Australian Bureau of Statistics (ABS) defines *employed persons* as including only those aged 15 and over who are actually paid for their work or labour. Clearly this excludes unpaid or voluntary work. Unfortunately, this definition seems narrow and implies that unpaid work is somehow less valuable.

Despite this misleading impression, the reality is that there is a huge amount of *unpaid work* performed in Australia. Take, for instance, the value of unpaid household work that takes place in every home. Clearly, this does not involve the labour market since there are no wages involved. The work of volunteers is also significant. Today, around 6 million ‘adult volunteers’ aged over 18 years, contribute over 1000 million hours of work per year. Here, a *volunteer* is someone who gives unpaid help in the form of time, skills or service through an organisation or group. Moreover, there has been a dramatic increase in volunteer rates among younger people (aged 18–24 years) from 17 to 27 per cent, older age groups (aged 55–64 years) from 24 to 33 per cent, and among those born in Australia from 26 to 34 per cent and those born overseas from 17 to 25 per cent.
Not included in these figures were the volunteers for events like the Sydney Olympics, Paralympic Games, overseas aid workers, young people aged under 18 years, or carers who look after their own family members who are aged or sick.

**Some of the reasons why we work**

In Australia, around 65 per cent of people aged over 15 years will spend more than half their lifetime at work. Have you ever stopped to ask why? The reasons people go to work are many and varied.

- Work is a necessity. In other words, having a job helps us earn the income we need to purchase life's necessities and luxuries.
- Work can bring self-esteem or status in society and among our friends.
- Work can be an escape from boredom and loneliness by helping us to meet people.
- Work can bring pleasure and can be an outlet for creative thought and artistic talent.
- Work can be satisfying by helping others.
- Many people believe strongly in the *work ethic*. Here, individuals have a responsibility to look after themselves financially, and having a job is regarded as valuable and worthwhile in its own right.

**Try applied economic exercise 3, p. 211**

### 5.5 Measurement of Australia’s labour market conditions

One way to judge the performance of the Australian economy is to examine trends in indicators or measures that tell us about the prevailing *conditions* that exist in our labour market.

Of special importance here are changes in the levels of:

- **Employment** (those aged over 15 years with paid jobs)
- **Unemployment** (those aged over 15 years without jobs who are able and willing to work for pay).

Among other measures, levels of employment and unemployment reflect *labour market conditions*. Usually, having *full employment* of the labour force is seen as better than having high levels of unemployment. Hence, *weak labour market conditions* are undesirable and usually exist in recessions when unemployment is high and employment is low. By contrast, *strong labour market conditions* occur in periods of economic growth when unemployment is fairly low and employment is high. In order to measure changes in labour market conditions, the ABS carries out its *labour force survey*.

**The labour force survey**

The *labour force survey* occurs monthly and involves about 0.45 per cent of the population of Australia. This survey sample is selected from around the country. As shown in figure 5.17 (p. 190), our population aged over 15 is classified either as being in the *labour force* or *not in the labour force*.

In analysing *labour market conditions*, the ABS uses the following measures and definitions:

**The labour force**

The *labour force* comprises all persons aged over 15 years who are able and willing to work. It includes:

- those who are classified as *employed* (see the definition following)
- those classified as *unemployed* (see the definition following).

**Sign of Australia’s labour force** = Number employed + number unemployed

**Employed persons**

*Employed persons* are those members of the labour force who, in the survey week:

- worked *full-time* (usually for more than 35 hours), or *part-time* (for more than 1 hour) for payment or profit
- worked as *self-employed* or in a family business
- had a job but were prevented from working due to illness, strikes, holidays and other similar situations.

---

**Check your understanding**

1. What is paid work?
2. What factors affect the demand for and supply of labour, and hence pay levels in the labour market?
3. What is unpaid work?
4. Who is regarded by the ABS as being employed? Does this include volunteer labour?
5. Give three reasons why most people work.
The participation rate
- This represents the proportion of people aged over 15 who are in the labour force (either employed or unemployed).
- The participation rate rises when a higher percentage of those aged over 15 who are not in the labour force join it.
- The participation rate falls when a higher percentage of those in the labour force leave it.

Those employed
- Working more than one hour per week for pay or profit

Those unemployed
- Not working or employed but actively looking for work
- Able and willing to start work immediately

Unemployed persons are those members of the labour force who are able and willing to work but are unable to get employment.

Normally, the employment rate rises when Australia’s level of economic activity is getting stronger.

Unemployed persons are those members of the labour force who, in the survey week:
- did not have a paid job but who were actively looking for work (making applications through letters or phone calls, registering with Centrelink and the Jobs Network as a job seeker), either on a full-time or part-time basis in the week prior to the survey
- were able and willing to start employment in the week prior to the survey
- were waiting to resume a job after being laid off or stood down without pay.

Survey results are then usually recalculated as a percentage of the total labour force and expressed as an unemployment rate (see formula p. 191).

Generally, the unemployment rate is a good indicator of labour market conditions.
When unemployment is dropping, often this is the result of more spending and faster economic growth.

\[
\text{Australia's unemployment rate (percentage of labour force)} = \frac{\text{Total number of unemployed} \times 100}{\text{Total number in the labour force}}
\]

**Participation rate**

The participation rate represents the proportion of all Australians aged over 15 years who are members of the labour force (they are either employed or unemployed). This rate is calculated as shown below.

\[
\text{Australia's participation rate (percentage)} = \frac{\text{Total number in the labour force} \times 100}{\text{Total number in the population aged 15 years and over}}
\]

A rising participation rate causes the size of the labour force to grow. There is an increased supply of labour resources. If this occurs at the same time as falling unemployment rates, this is a sign of a stronger labour market and good job prospects.

Over recent years, Australia’s participation rate has tended to increased. This may be caused by:

- Increased opportunities for and acceptance of women in the labour force
- Increased incentives including changes in the welfare and tax systems, for those who have withdrawn from the labour force to re-enter it
- Increased average age of retirement
- Economic necessity due to rising living costs.

**Job vacancies**

Job vacancies measure the extra demand for labour by firms. They represent the number of unfilled job offers or vacant positions advertised by businesses. For instance, job vacancies rise when business firms want to expand their production due to increased sales and growing levels of economic activity.

**Aggregate weekly hours worked**

Aggregate weekly hours worked per employee indicate changes in the demand for labour by employers. When more hours are worked, this is a sign that most firms are trying to step up production levels to meet rising orders or sales. This leads to stronger labour market conditions, and usually occurs when spending and economic activity are rising.

**Duration of unemployment**

The duration of unemployment shows the average number of weeks spent by the unemployed, before new work is found. Long-term unemployment exists when the unemployed take one year or more to find a job. Typically, the duration of unemployment falls during rising economic activity when the labour market is getting stronger and there are more job vacancies available.

**Incidence of employment and unemployment**

The incidence of employment or unemployment relates to the way employment or unemployment is spread among different age groups, ethnicities, regions, occupations and genders.
and genders. Knowing these matters is important to working out government policies to improve the situation by ensuring that most people have jobs. With this in mind, the ABS publishes statistics for unemployment rates by age group (e.g. youth unemployment among 15- to 19-year-olds), gender, ethnic background (for people with different birthplaces), region (e.g. inner Melbourne, south-western Victoria), state or territory (e.g. Tasmania), educational attainment (according to levels of educational attainment including those with tertiary or secondary school qualifications) and by industry. Additionally, data are published for employment changes by industry (i.e. variations in the number of jobs according to industry classifications such as agriculture or manufacturing).

Try applied economic exercise 4, pp. 211

5.6 Recent trends in Australia’s labour market

Levels of employment and unemployment have a huge effect on people’s income and hence their living standards. Because of this, economists are interested in following trends in the labour market (i.e. an institution where labour is bought and sold) so as to determine whether conditions are generally getting better or worse. Additionally, trends may also show whether or not a change in government policy is needed.

Labour market conditions

There are three general types of ‘conditions’ that can develop in Australia’s labour market:

• Stronger labour market conditions
• Weaker labour market conditions
• Ideal labour market conditions.

Stronger labour market conditions

Labour market conditions are improving or getting stronger if the demand for labour by firms is rising relative to the supply of labour by households. This may be indicated by lower unemployment rates (perhaps 5 per cent or less), rising job vacancies, increasing hours, declining duration of unemployment and increased employment growth. Strong labour market conditions are typical when there is an upswing in the level of economic activity (e.g. late 2001 to mid-2008, and again during 2009–11). Indeed, during February 2008, unemployment was at a 34-year monthly low of only 3.9 per cent.

Weaker labour market conditions

Weaker labour market conditions occur if the supply of labour by households is rising relative to the demand for labour by firms. The usual signs of this include increasing unemployment rates (perhaps over 6 per cent), falling job vacancies, declining hours, increasing duration of unemployment and reduced employment growth. These changes normally follow a downswing, or perhaps recession, in the level of economic activity (e.g. 1990–91 to 1992–93, 1996–97, 2000–01 to early 2001–02, 2008–09 and 2012–13–14).
Ideal labour market conditions (the goal of full employment)

Ideal labour market conditions occur when there is a balance between the demand for and supply of labour. Conditions should not be so strong that there are labour shortages which cause excessive wage rises and inflation. However, conditions should not be so weak that the unemployment rate is unacceptably high (i.e. perhaps around 6 per cent or more). Ideal labour market conditions exist when the Australian government achieves its economic goal of full employment. Nowadays, this healthy situation exists when Australia’s unemployment rate is around 4.5–5.0 per cent of the labour force. Indeed, the federal government uses various economic policies to lower unemployment and achieve its goal of full employment. This aim was well achieved between 2003–04 and 2005–06, but by 2007–08, unemployment was so low (i.e. there was over-full employment or less than 4.5–5.0 per cent of the labour force unemployed) that it caused inflation to accelerate. This was because the economy was stretched close to or beyond its productive capacity.

Trends in the level of employment and unemployment

As a general rule, labour market conditions change in a cyclical or wave-like manner. They get stronger as the level of economic activity (GDP) rises quickly. In this case, typically we see lower unemployment rates, more job vacancies, increased hours worked, higher participation rates and lower levels of long-term unemployment. By contrast, weaker labour market conditions are the result of slower levels of economic activity where GDP grows at a slower rate.

The unemployment graph and the accompanying table making up figure 5.21 (parts A and B, pp. 173–4) show this cyclical pattern in Australia’s labour market conditions between 1992–93 and 2014. As we shall see, several features stand out.

Generally stronger labour market conditions to mid-2008 and again 2010–11

The main thing to note from the graph and table making up figure 5.21 is that following the end of the recession in 1991–92 and up to mid-2014, labour market conditions mostly strengthened until the global recession and financial crisis in 2008–09 since then, conditions have been generally weaker with higher unemployment.

**Figure 5.21 Trends in Australia’s labour market conditions.**

Part A Changes in Australia’s unemployment rate, 1992–93 and 2014 (percentage of labour force) as an indicator of labour market conditions

Australian government goal of full employment is an ideal situation where there is a low unemployment rate of between 4.5 and 5.0% of the labour force.
FIGURE 5.21 (continued)

Part B Indicators of Australian labour market conditions, 1992–93 to 2013–14

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Unemployment rate (percentage labour force)</td>
<td>11.0</td>
<td>10.2</td>
<td>8.7</td>
<td>8.1</td>
<td>8.3</td>
<td>8.0</td>
<td>7.4</td>
<td>6.6</td>
<td>6.4</td>
<td>6.7</td>
<td>6.2</td>
<td>5.8</td>
<td>5.3</td>
<td>5.0</td>
<td>4.5</td>
<td>4.2</td>
<td>4.9</td>
<td>5.4</td>
<td>5.1</td>
<td>5.2</td>
<td>5.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Annual percentage change in the rate of unemployment</td>
<td>6.7</td>
<td>-2.8</td>
<td>-13.5</td>
<td>-4.2</td>
<td>3.9</td>
<td>-3.5</td>
<td>-6.5</td>
<td>-9.2</td>
<td>-1.1</td>
<td>7.1</td>
<td>-5.9</td>
<td>-6.2</td>
<td>-6.9</td>
<td>-5.6</td>
<td>-7.2</td>
<td>-6.6</td>
<td>16.6</td>
<td>10.2</td>
<td>-5.5</td>
<td>1.9</td>
<td>3.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Unemployment rate 15–19 (percentage)</td>
<td>32.2</td>
<td>32.3</td>
<td>27.5</td>
<td>27.5</td>
<td>28.0</td>
<td>27.4</td>
<td>25.2</td>
<td>21.9</td>
<td>22.6</td>
<td>24.2</td>
<td>22.5</td>
<td>21.4</td>
<td>20.2</td>
<td>20.2</td>
<td>19.1</td>
<td>15.9</td>
<td>20.8</td>
<td>24.3</td>
<td>22.8</td>
<td>24.0</td>
<td>25.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Long-term unemployed as percentage of total unemployed (at June)</td>
<td>35.8</td>
<td>36.6</td>
<td>34.4</td>
<td>29.5</td>
<td>29.2</td>
<td>31.6</td>
<td>31.9</td>
<td>28.7</td>
<td>23.1</td>
<td>22.0</td>
<td>21.9</td>
<td>21.2</td>
<td>18.3</td>
<td>17.6</td>
<td>15.2</td>
<td>13.8</td>
<td>15.7</td>
<td>18.7</td>
<td>19.2</td>
<td>18.9</td>
<td>19.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Number unemployed persons ('000)</td>
<td>941</td>
<td>915</td>
<td>794</td>
<td>737</td>
<td>765</td>
<td>738</td>
<td>690</td>
<td>626</td>
<td>620</td>
<td>663</td>
<td>624</td>
<td>586</td>
<td>546</td>
<td>527</td>
<td>489</td>
<td>468</td>
<td>557</td>
<td>641</td>
<td>608</td>
<td>626</td>
<td>666</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Participation rate (percentage those aged 15 and over)</td>
<td>62.6</td>
<td>62.8</td>
<td>63.3</td>
<td>63.7</td>
<td>63.6</td>
<td>63.4</td>
<td>63.1</td>
<td>63.4</td>
<td>63.4</td>
<td>63.7</td>
<td>63.5</td>
<td>63.9</td>
<td>64.4</td>
<td>64.8</td>
<td>65.2</td>
<td>65.4</td>
<td>65.2</td>
<td>65.7</td>
<td>65.4</td>
<td>65.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Annual rise in the number part- and full-time employed (percentage)</td>
<td>-0.8</td>
<td>1.6</td>
<td>3.2</td>
<td>2.6</td>
<td>1.0</td>
<td>1.4</td>
<td>2.0</td>
<td>2.1</td>
<td>2.1</td>
<td>1.2</td>
<td>2.5</td>
<td>1.8</td>
<td>2.8</td>
<td>2.4</td>
<td>2.7</td>
<td>2.6</td>
<td>1.1</td>
<td>2.4</td>
<td>2.8</td>
<td>0.7</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Annual total job vacancies ('000)</td>
<td>29.3</td>
<td>43.1</td>
<td>61.4</td>
<td>58.9</td>
<td>77.4</td>
<td>90</td>
<td>108.2</td>
<td>112.4</td>
<td>106.2</td>
<td>91.5</td>
<td>104.1</td>
<td>110.7</td>
<td>138</td>
<td>143.1</td>
<td>161.6</td>
<td>179.8</td>
<td>na</td>
<td>161.5</td>
<td>186.5</td>
<td>180.5</td>
<td>159.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Annual percentage change in aggregate hours worked</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>2.6</td>
<td>1.9</td>
<td>2.4</td>
<td>2.3</td>
<td>2.8</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Data derived from ABS 1350.0, 1383.0, 6105.0 and RBA Statistics.
This overall improvement in labour market conditions between 1992–93 and 2010–11, can be seen in the following ways:

- Unemployment was generally low and falling. For instance, unemployment dropped from a high of 11 per cent in 1992–93, to a 34-year monthly low of only 3.9 per cent in February 2008.
- The government’s *goal of full employment* (i.e. a target of around 4.5–5 per cent for unemployment) was reached by 2005–06, and a skills shortage developed during 2006–08 and again during 2010–11.
- Well over five and a half million new jobs were created between 1992–93 and late 2011.
- Employment grew by over 50 per cent to average around 1.7 per cent a year.
- The participation rate reached an all-time high of over 65 per cent by 2011–12.
- Youth unemployment declined by around 35 per cent to a low of around 19 per cent for 2011–12.
- The long-term unemployment rate (i.e. those unemployed for 52 weeks or more) over the period fell by around 54 per cent to about 19 per cent of all unemployed persons.
- The number of job vacancies rose by around 15 per cent between 2009–10 and 2010–11.
- The total number of unemployed for 2011–12 was down about 34 per cent, despite the dramatic growth in the size of the labour force and the participation rate.

**Weaker labour market conditions between late 2008 and 2009–10, and again 2012–13–14**

Labour market conditions have got cyclically weaker on several occasions:

- As already mentioned, there was a severe recession between 1990–91 and 1992–93. This pushed unemployment up to 11 per cent (its highest level since the Great Depression of 1929–33 when it reached 32 per cent).
- Next, there were two very mild slowdowns, one in 1996–97 and another in 2001–02.
- Following the global financial crisis (GFC) and slowdown in late-2008 and into 2009, labour market conditions weakened, with monthly unemployment rising to a high of 5.8 per cent in June 2009. During this period, the following signs were evident:
  - much higher unemployment numbers and rising unemployment rates
  - sharply declining job vacancies
  - reduced hours worked
  - falling participation rates
  - higher youth unemployment.
- Most recently unemployment crept up from a monthly low of 4.9 per cent in March 2012 to a high of 6.0 per cent in February 2014.

**Trends in the incidence of employment and unemployment**

The term *incidence* relates to the spread of employment and unemployment within different groups, regions and industries within the Australian economy. In recent times, the incidence of employment and unemployment has changed dramatically. The graph in figure 5.23 (part A, p. 196), for example, shows employment trends in selected industries between February 2000 and November 2012. Notice that over this period, employment in some industries grew strongly (e.g. mining, construction, health, accommodation and restaurants, public administration, transport and education), while it contracted in other areas (e.g. retail, manufacturing, and agriculture and fishing).

In addition, referring to the table in figure 5.23 (part B, p. 196), the *incidence* of employment and unemployment was unevenly shared by the community. The groups most likely to be unemployed in 2012–13 were youths aged 15–19 years, males, those in rural areas, the unskilled, Tasmanians and South Australians, employees in some areas of manufacturing and mining, and recent migrants from some overseas countries.
Part A Comparing Australia's level of employment by industry in 2000 and 2012

<table>
<thead>
<tr>
<th>Industry</th>
<th>Employment in February 2000 ('000)</th>
<th>Employment in November 2012 ('000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and community services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accommodation and restaurants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public administration and safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport and storage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance and insurance services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, forestry and fishing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information, media and telecommunications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arts and recreational services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity, gas and water supply</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Data derived from ABS 1350.0, Table 6.7; 6105.0, Table 4.

Part B Australia's incidence of unemployment, 2013

<table>
<thead>
<tr>
<th>There is a relatively higher incidence of unemployment among the following groups</th>
<th>There is a relatively lower incidence of unemployment among the following groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 15–19 year olds</td>
<td>• 20–54 year olds</td>
</tr>
<tr>
<td>• The unskilled and those with less education</td>
<td>• Those with tertiary qualifications</td>
</tr>
<tr>
<td>• Workers in some areas of manufacturing, agriculture and the utilities</td>
<td>• Workers in construction, transport, recreation, communication, property and finance</td>
</tr>
<tr>
<td>• Those in the southern states of Tasmania and South Australia</td>
<td>• Those in the Northern Territory, ACT and Western Australia</td>
</tr>
<tr>
<td>• People from overseas born in some parts of Asia and the Middle East, and Indigenous Australians</td>
<td>• People born in English-speaking and European countries</td>
</tr>
<tr>
<td>• Males</td>
<td>• Females</td>
</tr>
<tr>
<td>• Those in the Barwon south-western region in Victoria and western Melbourne</td>
<td>• Those in central Victoria, and inner and eastern Melbourne</td>
</tr>
<tr>
<td>• Workers in rural areas</td>
<td>• Workers in urban areas</td>
</tr>
</tbody>
</table>

International comparisons of unemployment rates

As shown in figure 5.24 (p. 197), unemployment rates vary greatly between countries. Notice that in nations like Nauru, Zimbabwe and Afghanistan, rates range from 36 to 97 per cent. Clearly, with so many idle resources, these countries are operating well inside their production possibility frontiers and have much unused capacity. However, some nations, such as Monaco and Thailand, have very low unemployment rates (e.g. below 1 per cent). These countries operate much closer to their productive capacity and their people are likely to enjoy much higher material living standards.

One of many factors affecting unemployment rates is the global rate of economic activity. When global economic growth is strong, unemployment rates fall. However, when severe recession hits internationally, as following the global financial crisis (GFC) and recession in 2008–09–10–11, and world GDP contracts, unemployment soars.
Indeed, by early 2011, world unemployment stood at well over 225 million (8.8 per cent) and rising. This represented an increase of around 70 million on levels for 2007–08. In addition, there were many more people who were underemployed (i.e. working only a few hours a day, well below their capacity). As we know, without work, incomes and living standards fall, and poverty becomes far more severe.

Indeed, by early 2011, world unemployment stood at well over 225 million (8.8 per cent) and rising. This represented an increase of around 70 million on levels for 2007–08. In addition, there were many more people who were underemployed (i.e. working only a few hours a day, well below their capacity). As we know, without work, incomes and living standards fall, and poverty becomes far more severe.

**5.7 Causes and types of unemployment**

As indicated in Figure 5.25 (p. 198), there are two main types of factors affecting the level of unemployment in Australia:

1. **Weak aggregate demand-side conditions** cause cyclical unemployment.
2. **Aggregate supply-side developments** can cause natural unemployment.

Now for a closer look at each of these two factors causing changes in the level and incidence of employment and unemployment.
Types or causes of Australia’s unemployment rate

Cyclical unemployment occurs in a slowdown or recession when demand-side conditions and the level of AD are weak. Here the unemployment rate rises above the target range of around 4.5 to 5.0% of the labour force. Examples of weaker labour market conditions or cyclical unemployment include 1990–2005, 2009–10 and 2013–14.

The government’s goal of full employment is the ideal situation where around 4.0 to 5.0% of the labour force is unemployed.

Natural unemployment of up to around 4.5 to 5.0% of the labour force is partly unavoidable and exists in both good times and bad. It is due to supply-side developments (especially structural change such as the application of new technology by firms, business relocation and business closures due to poor profits as announced in 2013–14).

Weak demand-side conditions cause cyclical unemployment

Cyclical unemployment occurs when national spending (AD) and production (GDP) levels are weak, as occurs in recessions or depressions. It then disappears when there is a boom and economic activity is strong. Indeed, figure 5.25 above shows that to some extent, the level of unemployment changed in a cyclical way, closely following the ups and downs of the business cycle and GDP.

Hence, when there is a cyclical drop in overall spending on Australian production (a fall in AD due to lower C, I, G and net X), sales of goods and services are down causing the level of unsold business stocks to rise. To avoid further overproduction, firms cut output levels. There is a cyclical slowdown in the rate of economic growth or GDP. This lowers the demand for resources including labour. When this occurs, employment growth is usually cut, there is a cyclical rise in unemployment, job vacancies shrink, hours of work decline and the duration of unemployment grows.

Over the years, there have been a number of examples of cyclical unemployment in Australia:

- Perhaps the most spectacular case was during the Great Depression of 1929–33 when Australia’s unemployment peaked at over 30 per cent.
- A second example, this time shown in figure 5.25, was during the severe recession of 1990–91 to 1992–93. Here, unemployment peaked at 11 per cent, of which about half was made up of cyclical unemployment.

Also shown in figure 5.25, are the less severe cyclical slowdowns of 2001–02, that following the GFC and global recession during 2008–09–10 and the slowdown of 2012–13. In all these cases cyclical unemployment was caused by the slower growth in total spending (AD) due to weak demand-side conditions including the following:

1. **Consumer pessimism.** Consumer pessimism about future income and employment (e.g. 2008–09, 2011–12) causes households to save rather than undertake consumption spending (C).
2. **Depressed business confidence.** Depressed business confidence about future sales and profits (e.g. 2008–09, 2011–12–13) means that firms cut their investment spending on new plant and equipment (I).
3. **Reduced household income.** A slower growth in household income (e.g. 2008–09, 2012–13) depresses consumption spending (C).
4. **Recession among major trading partners.** A slowdown or recession among our major trading partners including Japan, the United States, Britain and those in the European Union (e.g., 2008–09–10 and 2012–13–14) could cause sales of our exports (X) to fall due to consumer and business pessimism abroad.

5. **Higher interest rates.** Higher interest rates charged on credit depresses borrowing used to finance consumption (C) and investment expenditure (I) (e.g., 2009–10).

6. **Higher taxes or lower government spending.** Higher taxes or cuts in government spending in the budget discourage expenditure (C, I, G) and slow the economy.

However, in contrast, when demand-side conditions, and hence AD, strengthen leading to increased production, cyclical unemployment may gradually disappear altogether and there will be full employment. This is typical of periods where there is rapid economic growth. For example, with strong economic growth in Australia between 2002 and mid-2008, and to a lesser extent, during 2009–11, cyclical unemployment was eventually wiped out and the overall unemployment rate fell to around 5 per cent or less of the labour force.

### Supply-side developments can cause natural unemployment

**Natural unemployment** exists even in healthy economies where there is full employment. This zone is shown in figure 5.25 (p. 198). For example, recently in Australia, cyclical unemployment completely disappeared. However, this still left a natural rate of unemployment of around 5 per cent of the labour force. Currently, if overall unemployment fell below this zone as in 2007–08 and 2010–11, inflation would tend to rise. This is one reason why governments only try to limit unemployment to about 4.5–5.0 per cent of the labour force.

**Natural unemployment** is caused by changing supply-side conditions that alter the way firms organise production, business profitability and survival and the ability and willingness of individuals to be employed. Four types of natural unemployment will be identified below, including structural, frictional, seasonal and hard core.

### Structural unemployment

Generally, **structural unemployment** occurs because of changes in the way goods and services are produced. This is generally the biggest source of natural unemployment in Australia. There are many changes that can lead to structural unemployment. These include the following:

1. **Poor business profits and closures.** When business profitability is poor due to high production costs for firms (e.g., expensive wages, the carbon tax (2012) heavy company taxes on firms and high interest rates) and low efficiency levels, businesses go bankrupt, close down, cut staff or move overseas. In 2014, we think of recent announcements by Ford, Holden, Toyota, Shell Refinery (Corio), Alcoa (Point Henry), Qantas (Avalon) and BP Refinery (Brisbane) to close their plants in the near future.

2. **Business relocation.** When firms relocate their operations to a new area or town, this often means that former workers lose their jobs (e.g., bank closures in the bush, closure of logging areas, firms shift offshore to countries like China, Vietnam or India where wage costs are lower).

3. **New technology and a mismatch of skills.** There has recently been a technological revolution. This has involved the extensive use of computers, online shopping, high-speed communications linking markets (e.g., the internet), new industrial processes, automation and robotics. In some cases, machines have replaced workers on the production line, causing structural unemployment. Displaced and unskilled workers may lack the right training or skills to fill the job vacancies. This means that they are often forced to join the long-term unemployed and those who leave school at an early age with little training. Additionally, technical progress has meant the creation of a new generation of space-age products and services to tempt fussy consumers (e.g., laptop computers, the internet, mobile phones, smart cards, electrical gadgets, video games, DVDs, mp3 players). As a result, firms that fail to keep up and change their range of products through research and development (R&D) close down. Again this leads to structural unemployment, shifts in the incidence of unemployment and changes in industry employment patterns.
4. The effect of globalisation and tariff cuts. Economic globalisation refers to the spread of multinational business, trade and investment across national borders. It requires that nations expose themselves to more open competition and freer international trade. As a result, there has been a change in government policies including the lowering of tariffs (taxes added onto the price of imports) and other forms of industry protection, encouraging enterprise bargaining to lift efficiency and cut labour costs, and reducing government restrictions on investment or capital inflow from overseas. In a race of survival against cheaper imports and foreign competition, local firms have been forced to become more competitive by reducing production costs. Given that, for most firms, labour costs make up 50–70 per cent of business operating costs, staff cuts have occurred. Here we think of the staff reductions in the banking, transport, communications, public service, textile, clothing, footwear, electrical appliance, aviation and automotive industries. Additionally, in the case of firms that have been unable to cut costs sufficiently, businesses have closed down. By contrast, globalisation has re-allocated resources more efficiently. This has also opened up opportunities for firms to become efficient, increase sales and expand production. Here, globalisation has helped to create new employment opportunities in industries, regions and cities.

5. The effects of other government supply-side or microeconomic policies. Increased efficiency allows greater output to be produced from the same inputs or resources. With this in mind, the federal government has used various microeconomic reforms (also called aggregate supply policies). These cost cutting or efficiency measures have included reduced tariff protection from import competition, and the deregulation of various markets (including the labour market) to expose firms to stiffer competition, building infrastructure and boosting training and skills. These changes have caused resources to shift out of some less efficient areas into more productive uses. So while microeconomic reforms have caused a rise in structural unemployment in some areas in the short term, in the long-term, there is faster employment growth and even more job opportunities.

Frictional unemployment
Frictional unemployment is a second but less important type of natural unemployment. It exists when people are unemployed between finishing one job and starting another. This is common in the building trades and in some areas of rural industry.

Seasonal unemployment
Seasonal unemployment results from the termination of jobs at the same time each year due to the regular change in the seasons. For instance, fruit-pickers, tourist and holiday operators, school leavers and shearers, frequently suffer this problem.

Hard-core unemployment
Hard-core unemployment is often the result of personal attitudes and disabilities that are seen by some as hostile to effective employment. Welfare trap exists when, for various reasons (e.g. over-generous welfare payments), people become welfare dependent and find it difficult to get off government support.

Conclusion
Because some individuals, firms, industries, states and towns in Australia experience different economic conditions, circumstances and events, there will be variations in the
level and incidence of both employment and unemployment. Some groups of people and regions will enjoy better employment prospects, given cyclical and structural changes, than those endured by others.

Try applied economic exercise 6, p. 212

5.8 Effects of changes in employment and unemployment levels

It is true that unemployment is occasionally beneficial. For instance, the unemployed can use their leisure time to gain extra skills or be involved in voluntary unpaid work. In addition, when there is excessive spending and inflation, rising levels of unemployment (e.g. 2008–09–10 and 2012–13–14) can help cool down the economy. Generally, however, unemployment is seen as undesirable because of its bad effects on individuals, the economy and governments. It greatly undermines our material and non-material living standards.

Effects of unemployment on individuals, families and living standards

Unemployment usually has disastrous effects on both material and non-material living standards of individuals and families.

- Reduced incomes lower material living standards. The unemployed usually suffer a drop in income as they move from normal wages (perhaps around $1400 per week on full-time average weekly earnings or $622 on the full-time minimum wage in 2013–14) onto welfare assistance (usually about $250–$300 per week). This requires a change in lifestyle and big cutbacks in household spending on all but the most essential items. Naturally, living standards fall. In addition, often it is difficult to maintain interest repayments on personal debt or a home loan. Previous savings, if any, are quickly depleted, and other important assets (wealth) are frequently cashed in and used up. Poverty and economic and social inequality in society become even more noticeable.

- Reduced non-material living standards and quality of life. Unemployment also causes various aspects of non-material living standards to suffer:
  - Family tensions. Unemployment can add to family tensions, stress, violence and, in some cases, even crime and vandalism. This erodes the wellbeing of society.
  - Lower self-image. Often there are feelings of personal failure associated with the loss of status and friends. Knockbacks reinforce this during unsuccessful job applications.
  - Less employable. Individuals may lose their skills and possibly their work ethic if they are out of work for long periods. These discouraged job seekers often go on to join the ranks of the long-term unemployed.
  - Less healthy. Unemployment sometimes leads to a higher incidence of health problems (e.g. diabetes, nervous disorders, respiratory worries, heart disease).

Effects of unemployment on national production and living standards

When some of a nation’s resources are unemployed or lying idle, the economy is not at its productive capacity. Put another way, the country is located inside its production possibility frontier (see chapter 1). Because fewer goods and services are produced and national output or GDP is lower than its potential level, material living standards (income per person) are lower.

Effects of unemployment on the government

Unemployment is financially costly for both governments and taxpayers in different ways:

- On the one hand, unemployment lowers the number of income earners, thereby cutting government tax revenues.
- However, the problem becomes worse because unemployment also raises government outlays on welfare benefits, provision of health, law and order, labour market training and job creation schemes. Resources are taken from elsewhere (i.e. an opportunity cost), eroding living standards.

CHECK YOUR UNDERSTANDING

1. What is cyclical unemployment and what causes it?
2. What is natural unemployment? Identify and outline four important causes of it.
3. Explain two important differences between cyclical and natural unemployment.

1. How does unemployment affect individuals and families?
2. How might a rise in unemployment affect national production and living standards?
3. Explain how a rise in unemployment might affect the following:
   a. The level of government budget revenues
   b. The level of government budget expenses.
Given reduced government revenue and increased spending, usually the government’s financial situation becomes weaker. The budget usually moves into deficit (receipts are lower than outlays). This either forces the government to raise taxes (which is unpopular) or to borrow money, adding to our national debt. High levels of unemployment can even become an election issue. In an election year, the unemployed in some electorates may vote to get rid of the government.

5.9 The impact of government policies on employment and unemployment

Through its various policies, the Australian government seeks to create more jobs, and achieve the goal of full employment. This is defined as an ideal situation where most individuals wanting work are employed and where unemployment is kept to a low 5 per cent of the labour force. It is the lowest rate of unemployment that does not accelerate inflation and where there is no cyclical unemployment. Achieving this goal also helps to raise Australian living standards.

In order to help achieve full employment and keep unemployment low, the government uses various macroeconomic or aggregate demand management policies (measures to affect spending levels or AD) and aggregate supply policies involving microeconomic efficiency reforms and other measures. These are summarised in figure 5.28 below.

Macroeconomic or aggregate demand policies can help lower cyclical unemployment

Cyclical unemployment usually rises (especially in a recession) when economic growth (production or GDP) slows down to about 1–2 per cent or less per year. Knowing this, the government tries to avoid recessions or depressions, and keep the economy growing fairly quickly at perhaps 3–3.5 per cent per year. Hence, during a downswing
in economic activity (e.g. 2008–09), the federal government uses **expansionary macroeconomic policies** (monetary and budgetary measures) that try to lift spending on locally-made goods and services, or aggregate demand \( AD = C + I + G + X - M \).

**Using expansionary monetary policy**

**Monetary policy** is conducted by the Reserve Bank of Australia (RBA). It involves deliberate changes in interest rates offered on savings deposits and charged on borrowed credit. During a period of recession and rising cyclical unemployment (e.g. 2008–09, 2011–12–13), the RBA could cut interest rates and adopt an expansionary monetary policy (provided there was no threat of inflation). Lower interest rates earned on bank deposits could discourage household saving or leakages. At the same time, lower interest rates make the borrowing and spending of credit even cheaper. This can boost household consumption \( C \), business investment \( I \) and aggregate demand. Thinking back to the circular flow model, the net effect of lower saving and increased spending is that the levels of production and employment should rise. Eventually this should lower cyclical unemployment.

**Using expansionary budgetary policy**

Each year in May, the federal treasurer announces a new budget. **Budgetary policy** involves changing government taxes and outlays for the coming year. During a recession when AD is too low, causing cyclical unemployment to be high, an expansionary budget deficit (i.e. the value of budget revenue is less than the value of government budget outlays) can involve two things:

(i) **Government tax revenue**. The budget could cut taxes on personal incomes (pay-as-you-go tax or PAYG) and company profits (company tax). This action leaves people with more money to spend, thereby raising household consumption \( C \), business investment \( I \), AD, sales of goods and services, production (GDP) and employment.

(ii) **Government spending and outlays**. The budget could **increase government spending** \( G \) on goods and services for the community (e.g. public works, employment-creating schemes), or lift the level of welfare benefits. This action would pump more money into the economy and lead to higher AD. In turn, higher spending and rises in sales should encourage production (GDP), create more employment and lower cyclical unemployment.

The main problem of using expansionary budgets like this is that the government usually ends up running **budget deficits** (e.g. between 2008–09 and 2013–14, deficits totalled over $200 billion). Because budget revenues are not enough to pay for budget outlays, governments are often forced to borrow money. This increases their level of sovereign debt and involves the burden of interest repayments, now and into the future.

**Aggregate supply and other policies including microeconomic reforms can help lower natural unemployment**

**Natural unemployment** (accounting for around 5 per cent of the labour force being unemployed) is caused by structural, seasonal, frictional and hard-core factors affecting workers and firms. To try to lower this type of unemployment and create more jobs in the long term, the government uses a range of **aggregate supply policies**, including **microeconomic efficiency policies** (see chapter 2, pp. 00–0).

Firms undertake **structural change** because they want to remain competitive and profitable. To do this, businesses have to continually alter the way they produce goods and services. This involves cutting production costs (e.g. cutting excess staff and the cost of labour, capital equipment, local and imported materials, administration, services purchased), using new technology (e.g. computers, robots), closing down unprofitable branches of a firm, beating one’s business rivals, improving worker motivation and developing new products and services through research and development. Firms that fail to change and reduce costs become unprofitable and close down. This causes structural unemployment. The government’s cure for structural unemployment is **aggregate supply policies**, including **microeconomic reform**. Reform measures involve cost-cutting, efficiency-promoting policies. They are designed to make local suppliers of goods and services more competitive, motivated and profitable. There are several aggregate supply policies that have been used in recent times.
Cuts in key tax rates to encourage employment growth

Some claim that our high rates of income tax discourage work and personal effort. In addition, heavy taxes on companies lower the after-tax profits of firms. This reduces private investment in more efficient equipment, slows business expansion and may even cause firms to close down or go offshore (start up overseas). Heavy taxation can destroy jobs and cause structural unemployment. Between 1999–2002 and 2012, the federal government introduced many tax reforms. For instance, policies have included:

- cuts in personal tax rates (e.g. 2005–10, 2012)
- reductions in the rate of company tax from 36 to only 30 per cent (2000–02, 2012), with more cuts to 28.5 per cent currently being considered (for July 2015), as part of the government’s review of the tax system
- lowered rates of capital gains tax (CGT) with the top rate down from 48.5 to only 23.25 per cent (rate for 2013–14)
- the introduction of the 10 per cent goods and services tax (GST, 2000) exempting exporters, to replace the inefficient and burdensome wholesale sales tax (WST) that had rates up to 45 per cent.

Lower tax rates should help firms to become more profitable. They encourage businesses to expand their operations and create new jobs (rather than going bankrupt), thereby reducing the closure of firms that lead to higher structural unemployment. They may also help encourage employees to re-enter the labour force and lift their productivity.

Labour market reforms to help keep wage costs down and create jobs

For over 100 years, the federal government through the Fair Work Commission (or its predecessors) has centrally set pay levels for most Australian workers. This involves a system of uniform minimum wages.

However, despite certain advantages, critics of the system claimed that this wage system caused local firms to become uncompetitive and unprofitable against foreign rivals where the same high wages did not apply. As a result, starting in 1991, the federal government introduced reforms involving deregulation of the labour market (i.e. reduced government controls over wage levels and working conditions). These changes involved the progressive extension of enterprise bargaining as the system used to determine wages and conditions. It now covers around 85 per cent of all workers. Here, employees and their bosses negotiate pay and conditions on a firm-by-firm basis, leading to an enterprise or workplace agreement. Under this new system, wage rises usually depend on improved productivity (i.e. increased efficiency or output per worker per hour). With pay incentives, employees are encouraged to work harder. This slows wage costs per unit of output produced. As a result, Australian firms have generally become more competitive and profitable. This has encouraged firms to expand employment and has reduced business closures and structural unemployment due to bankruptcy. In 1996, 2005, 2008, 2009 and 2012, the federal government made additional changes to the wage system with more planned in the next few years.

For example, 2006 saw the commencement of the Howard coalition government’s unpopular Workplace Relations Amendment (Work Choices) Act. Because of its unpopularity, parts of this act were abolished by the incoming Labor government when it passed the Workplace Relations Amendment (Forward with Fairness) Act (2008), the Fair Work Act (2010) and the Fair Work Amendment Act (2012).

One change under this new legislation was the creation of a one-stop shop or institution for setting minimum wages called the Fair Work Commission (FWC). Essentially, this organisation took over some of the traditional responsibilities of the Australian Industrial Relations Commission (whose function is now mainly limited to settling industrial disputes). In deciding the minimum wage, FWC has been instructed to take account of:

- the promotion of the economic prosperity of the people of Australia
- the capacity for the unemployed and low paid to obtain and remain in employment
- employment and competitiveness across the economy
- providing a safety net for the low paid
- providing minimum wages for junior employees to whom training arrangements apply and employees with disabilities that ensure those employees are competitive in the labour market.

As these guidelines imply, there is now much greater emphasis on using the minimum wage system to help lower unemployment. Many economists believe that by keeping...
the minimum wage relatively lower (i.e. closer to the free market equilibrium wage) than it has been in the past, the level of structural unemployment will fall by thousands. In addition, during 2005, the Coalition government modified the unfair dismissal laws. This meant that small firms employing less than 100 workers were made exempt from most unfair dismissal claims. One justification for this alteration was that it would encourage more firms to employ extra staff, if they knew that they could get rid of them easily and without the expense of legal battles, if they proved to be unsatisfactory. Some commentators claimed that this could create at least 30,000 extra jobs and lower the rate of structural unemployment.

In addition, there were also other changes following the partial abolition of the previous Howard government’s unpopular ‘WorkChoices’ policy by the Rudd and Gillard governments. For instance:

- unfair dismissal laws were re-applied for most medium to large employers
- reasonable and non-negotiable national employment standards (i.e. minimum conditions of work) were passed to protect working conditions.

While these changes softened the previous Howard government industrial relations policy, it remains to be seen if they have an adverse effect on worker efficiency, the international competitiveness of Australian industry, the expansion of local business and the level of structural unemployment. More recently in 2014, a review has commenced of the Fair Work laws and the award system.

**Encouraging education and training to lift employability and efficiency and reduce costs**

Skilled and educated workers are more employable and able to fill the advertised job vacancies than unskilled people. This helps to reduce structural unemployment caused by a mismatch of skills. In addition, improved skills make workers more productive, efficient and competitive. This helps to lift the level of GDP produced per hour worked, thereby lowering labour costs for businesses and improving their profitability. As a result, there should be fewer business closures due to poor profits and firms should be encouraged to expand. Again this helps to reduce structural unemployment.

With this in mind, between 2008–09 and 2013–14, recent federal governments have increased budget outlays on workplace skills training and education through the schools building program and the ‘education revolution’, increased funding for vocational education and training (VET), financial encouragement for young people to take up apprenticeships, and provision of financial incentives for employers to take on apprentices.

**National infrastructure projects to help reduce production costs**

Australian businesses can only expand and be profitable if there is adequate provision of efficient national infrastructure by governments (perhaps in partnership with private firms). National infrastructure involves the construction of important roads, railways, power and water grids, port facilities and communication systems that are used by businesses to help produce other goods and services. Inadequate infrastructure lifts production costs for local firms, causes some firms to close due to poor profits, limits business expansion and contributes to higher structural unemployment.

With this in mind, during the last 5 to 10 years, the federal government has announced many new infrastructure projects including key rail links, national highways and, of course, between 2009 and 2013, the National Broadband Network (NBN). Improved rail and road transport infrastructure will help to lift efficiency, reduce travel times and lower production costs, and improve business profits and competitiveness. In addition, the NBN should also help to lift the speed of telecommunications, again reducing cost pressures for firms. By slowing cost pressures and improving business profitability, more local firms should expand (and perhaps export more) rather than closing down, thereby reducing structural unemployment.
Welfare reforms to increase the labour force participation rate

In the past, some critics claimed that Australia’s welfare system caused hard-core unemployment by being too generous and allowing some individuals to drop out of work. Between 1996 and 2013, this changed. There has been a much tougher approach to welfare eligibility, partly to reduce the cost to taxpayers, but partly to increase the labour force participation rate among people aged 15 and over, for instance. This has involved:

- The ‘work for the dole’ scheme that aims to provide job experience, skills and increase self-esteem among the unemployed
- Making welfare for teenagers conditional upon undertaking training and education
- Requiring the maintenance of a jobs diary to show efforts by the unemployed to find a job
- Requiring that the unemployed turn up for job interviews or face the suspension of government assistance
- Reforming benefits so that those on welfare undertaking more hours of work do not immediately lose their benefits.
- Creating incentives for the older workers to stay at work and defer retirement.
- Requiring that those on single parent benefits complete at least 15 hours of work per week once their children reach school age.

These measures have certainly helped to reduce the welfare trap by making unemployment an even less attractive alternative to work, while at the same time helping to raise the labour force participation rate and better using the resources that Australia has available.

1. Explain what is meant by the government’s goal of full employment.
2. What are the two types of government aggregate demand or macroeconomic policies and how can each be used to help reduce cyclical unemployment?
3. What are government aggregate supply or microeconomic reform policies? Identify and explain how any two of the following microeconomic reforms could be used in the long term to help reduce the level of natural unemployment.
   a. Lower tax rates
   b. Labour market reforms
   c. Outlays on education, skills and training
   d. National infrastructure projects
   e. Welfare reforms

Try terminology revision, p. 209
Try applied economic exercise 8, p. 213
Try economic simulation activity — using an interactive internet game to explore the effects of government policy on unemployment, pp. 214–15
Try analysis of evidence — statistical data for Eureka, p. 215
Try a report on an investigation — economist, John Maynard Keynes, p. 216
Try a report on an investigation — The Great Depression, p. 216
Try a report on an investigation — The global financial crisis and recession, 2008–09 to ?, p. 218
Try analysis of visual evidence — a cartoon, p. 218
Try a folio of annotated media commentaries using print or electronic materials, pp. 218
SCHOOL ASSESSMENT TASKS AND LEARNING ACTIVITIES

In order to satisfactorily complete VCE Economics Unit 2, Outcome 1, the teacher must decide whether the student has demonstrated the general achievement of the set of outcomes specified for the unit, including key knowledge and key skills for Outcome 2. The teacher’s decision should reflect results from a selection of school-based assessment tasks. Generally, this assessment should take place as part of the normal teaching and learning program. In addition, most assessment will be completed in class under a limited time frame. With this in mind, teachers may select from an appropriate range of tasks provided on the following pages.

Multiple-choice test questions

Using the multiple-choice answer grid, select the letter (A, B, C, or D) that represents the most appropriate answer for each question, by marking it with a tick (√).

**Answer grid**

<table>
<thead>
<tr>
<th>Question</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Question 1**
Which one of the following factors would have an opposite effect on the rate of growth in Australia’s population to the other three?
A A rise in the rate of net migration and a fall in the death rate
B A rise in the birth rate and a fall in the emigration rate
C A severe depression where unemployment rose to 30 per cent
D A baby boom along with a rise in the government’s baby bonus for mothers having their first child

**Question 2**
Referring to demographic events affecting Australia’s current population age distribution, which of the following is incorrect?
A Currently, there is a large group of baby boomers who were born in the years following World War II and are now approaching retirement age.
B There has been a decline in the birth rate during the last decade or so causing a drop in young people as a proportion of the total population.
C People are tending to marry at an older age than previously, thereby tending to reduce the birth rate and size of families.
D Recent immigration has tended to increase the average age of the population, causing a ‘greying of Australia’.

**Question 3**
Which of the following is an accurate economic effect of Australia’s growing population?
A There is now greater cultural diversity and a richer variety of foods, fashions and entertainment than pre-1940s.
B Immigration has increased both our demand for and supply of labour, and has created better economies of large-scale production for many firms.
C There may be a reduced level of cohesion holding society together in times of crisis.
D Migration to Australia by younger people of working age will not help to solve the financial problems for governments caused by our ageing population (e.g. the need for more spending on health and welfare).

**Question 4**
Concerning the concept of optimum population, which statement is true?
A A country has an optimum population when this allows its resources to be used most efficiently and income per person is at its highest point.
B A country is overpopulated when its population size is too big for the current technology and resources available, thereby causing its income to be lower than otherwise.
C Optimum population mainly considers economic arguments and pays little attention to the impact of population on social or environmental conditions.
D All of the above are true statements.

**Question 5**
Which of the following statements about paid and unpaid work is incorrect?
A Paid work occurs when people sell their services through the labour market, and the level of payment depends mainly on the conditions of demand and supply for each type of labour.
B People are usually paid more in some occupations when the demand for a particular type of labour is small and its supply is relatively large.
C Unpaid voluntary work often involves fundraising, management, sports coaching and other instruction.
D There are nearly twice as many paid as unpaid workers in Australia, but unpaid workers add significantly to our wellbeing by increasing the actual volume of goods and services available for our community.

**Question 6**
Which of the following government policies is unlikely to slow Australia’s rate of population growth?
A Government family allowances that pay far more money to large families than to parents without children
B Taking a tough stance on border protection, boat people, detention centres in remote regions, offshore processing of asylum seekers and crackdown on illegal entry
C The increased shift towards the user-pays system (as opposed to free services) for those wanting to access government services like health, education, transport and housing
D The setting of higher immigration targets in the 190 000 to 210 000 per year range

**Question 7**
Which statement about the definition of Australia’s labour force is false?
A The labour force includes all people in Australia of working age.
B The labour force involves all people aged 15 years and over who are able and willing to work.
SCHOOL ASSESSMENT TASKS AND LEARNING ACTIVITIES

Question 8
Which of the following would tend not to reduce the supply of labour and the size of the labour force?
A A fall in the participation rate
B A drop in net migration levels
C A stronger ‘work ethic’ among those aged 15 years and over
D A decline in the birth rate following a rise in the cost of having children.

Question 9
Which of the following would tend to fairly quickly increase demand in Australia’s labour market?
A A rise in interest rates on loans to businesses (e.g. 2002–08, 2009–10) used to finance investment spending
B A drop in interest rates on loans to households who borrow credit (e.g. 2008–09, 2011–12–13)
C Cuts in government spending on public education and health
D An acceleration of privatisation of government business enterprises (GBEs).

Question 10
Which of the following would normally be regarded as an unemployed person?
A A person who worked only 1.5 hours per week for wages
B A person aged over 15 years who had no job but was not actively looking for work
C A person prevented from working because of a union strike
D A person aged over 15 years who had been laid off work without pay and was able and willing to start employment.

Question 11
Which of the following is incorrect in relation to the labour force survey by the ABS?
A The participation rate is the proportion of the whole population that is employed.
B Job vacancies are unfilled job offers and reflect the demand for labour.
C Long-term unemployed are those unemployed for more than a year.
D The duration of unemployment is the average number of weeks for which people are unemployed.

Question 12
Which definition of the labour market is most correct?
A The labour market is where workers sell their labour.
B The labour market is where buyers purchase labour.
C The labour market is an institution where pay and working conditions are mainly negotiated by firms and workers.
D The labour market is always in an ‘ideal situation’ when the supply of labour is fairly closely in balance with the demand for labour.

Question 13
Which of the following would generally indicate stronger labour market conditions?
A A rise in the participation rate from 61 to 65 per cent and a drop in the duration of unemployment.
B A rise in the unemployment rate for adults and 15–19 year olds.
C A fall in the index of weekly hours worked from 100 to 98 points.
D A drop in the rate of employment growth from 3 to 0.5 per cent per year.

Question 14
Which of the following is likely to cause a rise in cyclical unemployment?
A A cut in tax rates on individuals and companies
B A rise in interest rates
C A rise in government spending
D A boom in economic activity in Japan.

Question 15
Which of the following would cause a drop in cyclical unemployment?
A Weaker consumer confidence
B A rise or appreciation in the exchange rate for the A$ against the US$
C A drop in private investment spending (I)
D A rise in the value of exports (X) against the value of imports (M)

Question 16
Which of the following is unlikely to cause higher levels of natural unemployment?
A A dramatic acceleration in the use of new technology in the banking industry
B Inefficient branches of business are closed down by the parent company in order to cut costs
C Even more generous government welfare assistance for the unemployed
D A boom in the construction industry and other trades reducing frictional delays between jobs.

Question 17
Examine the following data relating to a hypothetical economy over a two-year period:

<table>
<thead>
<tr>
<th>Data</th>
<th>2013–14</th>
<th>2014–15</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>$740 million</td>
<td>$750 million</td>
</tr>
<tr>
<td>I</td>
<td>$220 million</td>
<td>$260 million</td>
</tr>
<tr>
<td>G</td>
<td>$80 million</td>
<td>$85 million</td>
</tr>
<tr>
<td>X</td>
<td>$30 million</td>
<td>$30 million</td>
</tr>
<tr>
<td>M</td>
<td>$30 million</td>
<td>$25 million</td>
</tr>
<tr>
<td>Labour force size</td>
<td>5 million</td>
<td>5 million</td>
</tr>
</tbody>
</table>

From these data covering 2013–14 to 2014–15, which statement is correct?
A Unemployment should tend to fall.
B The number of welfare recipients should tend to rise.
C Changes in the overseas sector tended to cause increased unemployment and reduced employment over the period.
D Together, households and businesses were probably saving more and spending less.

Question 18
Referring to the incidence of unemployment in Australia in 2012–13, which statement is false?
A Among other things, the term relates to the way unemployment is spread around different industries, states, groups and occupations in the community.
B The incidence of unemployment is higher in Tasmania and South Australia than in the ACT.
C The incidence of unemployment is higher among 15–19 year olds than among those aged over 20 years.
D The incidence of unemployment is lowest in unskilled occupations.

Questions 19 and 20 are based on the hypothetical information below relating to a country’s population and labour force for the year 2014.

<table>
<thead>
<tr>
<th>Population data</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth rate</td>
<td>2.6%</td>
</tr>
<tr>
<td>Death rate</td>
<td>1.1%</td>
</tr>
<tr>
<td>Immigration rate</td>
<td>2.1%</td>
</tr>
<tr>
<td>Emigration rate</td>
<td>1.0%</td>
</tr>
<tr>
<td>Total number unemployed</td>
<td>500,000</td>
</tr>
<tr>
<td>Total number employed</td>
<td>7,000,000</td>
</tr>
<tr>
<td>Total number in the labour force</td>
<td>7,500,000</td>
</tr>
<tr>
<td>Number of people aged over 15 years</td>
<td>12,500,000</td>
</tr>
<tr>
<td>Total population size</td>
<td>16,000,000</td>
</tr>
</tbody>
</table>
Question 19
Which of the following statements is incorrect?
A The total rate of population growth is 2.6 per cent.
B The rate of net migration is 1.1 per cent.
C The rate of natural increase is 1.5 per cent.
D The unemployment rate is 5.6 per cent.

Question 20
Concerning the participation rate, which statement is most correct?
A The participation rate is around 50 per cent.
B The participation rate is about 60 per cent.
C The participation rate is about 70 per cent.
D The participation rate cannot be calculated from the above table of information.

Terminology revision
A good way to revise terminology is to construct your own crossword. Use the Economics dictionary in your text to write the clues and refer to table 5.2 below for the terminology.

Table 5.2 Economics terms used in chapter 5

<table>
<thead>
<tr>
<th>Age group</th>
<th>Males make up what %</th>
<th>Females make up what %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 9</td>
<td>6.55</td>
<td>6.21</td>
</tr>
<tr>
<td>10 to 19</td>
<td>6.44</td>
<td>6.11</td>
</tr>
<tr>
<td>20 to 29</td>
<td>7.42</td>
<td>7.18</td>
</tr>
<tr>
<td>30 to 39</td>
<td>6.92</td>
<td>6.93</td>
</tr>
<tr>
<td>40 to 49</td>
<td>7.01</td>
<td>7.03</td>
</tr>
<tr>
<td>50 to 59</td>
<td>6.3</td>
<td>6.43</td>
</tr>
<tr>
<td>60 to 69</td>
<td>4.92</td>
<td>4.98</td>
</tr>
<tr>
<td>70 to 79</td>
<td>2.81</td>
<td>3.03</td>
</tr>
<tr>
<td>80 to 89</td>
<td>1.32</td>
<td>1.88</td>
</tr>
<tr>
<td>90 to 99</td>
<td>0.19</td>
<td>0.43</td>
</tr>
<tr>
<td>100 and over</td>
<td>0</td>
<td>0.01</td>
</tr>
</tbody>
</table>

(1) Define the term age-sex distribution of the population. How is this illustrated or graphed diagrammatically?
(2) The age-sex distribution is one of Australia’s important demographic features. Use the data to construct a population pyramid for Australia (drawn as a bar graph in the space below) using the latest preliminary data recently released for 2012.
Part A Age-sex distribution of the Indigenous and non-Indigenous population (expressed as percentages of the total population) 30 June 2006

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Non-Indigenous</th>
<th>Indigenous</th>
</tr>
</thead>
<tbody>
<tr>
<td>75+(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70–74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65–69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60–64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55–59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50–54</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45–49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40–44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35–39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30–34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25–29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20–24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10–14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5–9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Male (%) Female (%)

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>75+(a)</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>70–74</td>
<td>6.0</td>
<td>3.0</td>
</tr>
<tr>
<td>65–64</td>
<td>15.1</td>
<td>10.2</td>
</tr>
<tr>
<td>60–64</td>
<td>24.2</td>
<td>17.3</td>
</tr>
<tr>
<td>55–59</td>
<td>30.4</td>
<td>22.6</td>
</tr>
<tr>
<td>50–54</td>
<td>34.8</td>
<td>27.0</td>
</tr>
<tr>
<td>45–49</td>
<td>36.8</td>
<td>28.7</td>
</tr>
<tr>
<td>40–44</td>
<td>36.4</td>
<td>28.5</td>
</tr>
<tr>
<td>35–39</td>
<td>35.7</td>
<td>26.5</td>
</tr>
<tr>
<td>30–34</td>
<td>34.0</td>
<td>25.1</td>
</tr>
<tr>
<td>25–29</td>
<td>32.2</td>
<td>23.8</td>
</tr>
<tr>
<td>20–24</td>
<td>30.4</td>
<td>22.6</td>
</tr>
<tr>
<td>15–19</td>
<td>28.7</td>
<td>20.9</td>
</tr>
<tr>
<td>10–14</td>
<td>26.4</td>
<td>19.2</td>
</tr>
<tr>
<td>5–9</td>
<td>24.2</td>
<td>16.3</td>
</tr>
<tr>
<td>0–4</td>
<td>22.0</td>
<td>14.8</td>
</tr>
</tbody>
</table>

Notes for part A:
(a) The 75-plus age group includes all ages 75 years and over and, therefore, is not strictly comparable with the other five-year age groups.
(b) Denotes series B (i.e., assumptions of a medium rate) for population projections.

Sources:
Graph reproduced directly from the ABS website, publication No 1301.0, Year Book Australia 2008, table 7.24, p. 198.

Notes for part B:
(b) Denotes series B (i.e., assumptions of a medium rate) for population projections.

Sources: Table reproduced directly from ABS 1301.0 (Table 7.13), Year Book Australia 2008 (p. 187). Primary data from Australian demographic statistics (3101.0), Population projections, Australia, 2002 to 2101 (3222.0).

SCHOOL ASSESSMENT TASKS AND LEARNING ACTIVITIES

(3) Use the graph in figure 5.30 (part A) to estimate the following percentages of Australia’s Indigenous and non-Indigenous populations in each age group for 2006.

(a) What is the percentage of Australia’s non-Indigenous population who are males aged 0–4 years? How does this compare with the percentage of Australia’s Indigenous population who are males aged 0–4 years?

(b) What percentage of Australia’s non-Indigenous population are males aged 35–39 years? How does this percentage compare with that for our Indigenous population aged 35–39 years?

(c) What percentage of non-Indigenous Australian males are aged 75 years and over? How does this percentage compare with our Indigenous population aged 75 years and over?

(d) What percentage of non-Indigenous Australian females are aged 15–19 years? How does this percentage compare with that for Indigenous females aged 15–19 years?

(e) What percentage of non-Indigenous Australian females are aged 75 years and over? How does this percentage compare with that for Indigenous females aged 75 years and over?

(4) List and describe the main differences between the shape of the pyramid showing the overall distribution of Australia’s non-Indigenous population by age and sex in 2006, against that for our Indigenous population (including Aboriginal and Torres Strait Islanders). Try to give reasons for the differences.

(5) Looking at figure 5.30 (parts A and B), what are the main visible effects of the post-World War II ‘baby boom’ (i.e., those born between 1946 and say 1960) and the government’s post-World War II assisted migration program on Australia’s age distribution for 2004–06?

(6) Again, looking at figure 5.30 (parts A and B), explain one economic, one social and one political factor that has affected the age distribution of Australia’s population.

(7) Using figure 5.30 (part A), give one important reason why the 2006 pyramid for our Indigenous population slopes more steeply inward with a rise in age, than that for the non-Indigenous population.

(8) Why are there more females than males in the older age groups?

(9) Look at the table making up figure 5.30 (part B) and the predicted age-sex distribution for the years 2021, 2051 and 2101. List and briefly explain three important developments that are expected to occur in our future population.

Question 2

Refer to the table in figure 5.30 (part B) used in question 1. This compares the age-sex distributions for Australia 1901–2004, with those projected for 2021, 2051 and 2101. Explain how you would expect the changes in the age-sex distribution over these years to affect the following.

A The size of the labour force (drawn from people aged over 15 years) and the level of wages (cost of labour used by firms)

B The rate of economic growth, the rise in Australia’s productive capacity and material living standards.
C The level of demand for:
- aged care services
- retirement villages
- pop music
- large homes vs the building of smaller units
- snow skis and lift tickets, rollerblades and surfboards
- takeaway food (targeting teenagers)
- financial planning advisers.

D The number of taxpayers and the level of government tax revenue.

E Government spending on aged pensions and health care
F The quality and health of the natural environment
G Your need to accumulate superannuation to provide income for when you retire.

H As shown in figure 5.7 p. 179, Australia has an ageing population.

(1) Referring to this population pyramid, explain what is meant by an ageing population.
(2) Explain two factors contributing to Australia’s ageing population.
(3) Identify and outline two important economic problems resulting from an ageing population, noting how this is likely to affect Australia’s future living standards.
(4) Outline two important federal government policies that might help to reduce the effects of Australia’s ageing population.

Question 3
A Distinguish between paid and unpaid work.
B Obtain a copy of a major Saturday newspaper (or use the internet). Go to the employment section and select any job advertisement for a paid position that you would really love to have. Cut out this job ad and include it in a brief written report or make a short PowerPoint for a two-minute oral class presentation that covers the following:
- Why would you like to have this job?
- What are the annual pay and conditions of employment?
- For this position, what factors affect the supply of labour or people to fill this vacancy?
- For this position, what factors affect the demand for labour by this company or business?

C Conduct an interview with one person from among your family, friends and teachers who is or has been involved with voluntary or unpaid work. Try to discover:
- what type of work they are involved in and what tasks they perform
- how many hours per week or year are spent on unpaid work
- what the main reasons are for being involved in voluntary work
- if they were paid for this work at market rates, how much this would be worth each year.
D Given your interests and talents, in what type of voluntary work could you be involved? How would you go about becoming a volunteer in this position? To help answer this last question, you may like to check out appropriate websites.

Question 4
A Define what the ABS means by each of the following terms:
- the labour force
- employed persons
- unemployed persons
- not in the labour force
- the participation rate.
B According to ABS definitions, classify each of the following individuals listed in table 5.3 below as being:
- employed
- unemployed
- not in the labour force.

TABLE 5.3 Classifying individuals according to ABS labour force definitions

<table>
<thead>
<tr>
<th>Description of individual</th>
<th>ABS classification of the individual’s situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Balamani is 17 and a full-time VCE student.</td>
<td></td>
</tr>
<tr>
<td>2. Jennifer, aged 25, does not have a full-time job but works for pay at the corner milkbar for 5 hours each week.</td>
<td></td>
</tr>
<tr>
<td>3. Dana is not working because of a strike at the shoe factory.</td>
<td></td>
</tr>
<tr>
<td>4. Damien, aged 12, works for 20 hours each week on the family farm for pocket money.</td>
<td></td>
</tr>
<tr>
<td>5. Andrew, aged 66, is taking long-service leave.</td>
<td></td>
</tr>
<tr>
<td>6. Hiranmayi is 37 and has no work. As yet she has not applied for a job.</td>
<td></td>
</tr>
<tr>
<td>7. Adele is a qualified architect but she has been stood down by her employer without pay because of the recession.</td>
<td></td>
</tr>
<tr>
<td>8. Jonathan has completed his VCE and is having a holiday at Torquay.</td>
<td></td>
</tr>
<tr>
<td>9. Discouraged by being unable to find a job, Sophia performs voluntary unpaid community work with the Salvation Army.</td>
<td></td>
</tr>
<tr>
<td>10. Harvey hurt his back at the warehouse and is currently a Workcare recipient.</td>
<td></td>
</tr>
</tbody>
</table>

C Use table 5.4 below to calculate each of the following for Australia in February 2014:
- the size of the labour force
- the unemployment rate
- the overall participation rate.

TABLE 5.4 Data relating to Australia’s population and labour force

<table>
<thead>
<tr>
<th>Data for Australia</th>
<th>February 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia’s population aged 15 and over ('000 persons)</td>
<td>18,918</td>
</tr>
<tr>
<td>Number of people employed in Australia ('000 persons)</td>
<td>11,535</td>
</tr>
<tr>
<td>Number of people unemployed in Australia ('000 persons)</td>
<td>743</td>
</tr>
</tbody>
</table>

Source: Data derived from ABS 6202.0.

D In February 2008, Australia’s unemployment rate was at a 34-year low of just 3.9 per cent of the labour force. Using your answer from question 4C above, calculate the percentage change in the rate of unemployment between February 2008 and February 2014.

Question 5
A Define the labour market.
B Classify the events listed in table 5.5 into factors that mainly affect:
- the demand for labour
- the supply of labour
- both demand and supply.
Briefly explain your reasoning.
C Explain the following terms and give the correct names of three ABS measures or statistical indicators of each set of conditions:
- stronger labour market conditions
- weaker labour market conditions
- ideal labour market conditions.
TABLE 5.5 Factors affecting Australia’s labour market conditions

<table>
<thead>
<tr>
<th>Event affecting Australia’s labour market conditions</th>
<th>Explanation of whether the event affects the demand, supply or both the demand for and supply of labour</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A rise in the minimum school-leaving age from 15 to 17 years</td>
<td></td>
</tr>
<tr>
<td>2. A rise in the compulsory retirement age from 64 to 65 years</td>
<td></td>
</tr>
<tr>
<td>3. Consumer confidence booms to record heights.</td>
<td></td>
</tr>
<tr>
<td>4. A severe recession in Japan, China and the US with whom we trade.</td>
<td></td>
</tr>
<tr>
<td>5. A baby boom causing the rate of natural population increase to rise from 0.7 to 1.7 per cent a year</td>
<td></td>
</tr>
<tr>
<td>6. A severe decline in the acceptance of the work ethic among those aged 15–19 years</td>
<td></td>
</tr>
<tr>
<td>7. Decreased use of contraceptives among 20–40 year olds</td>
<td></td>
</tr>
<tr>
<td>8. Terrorist attacks and war</td>
<td></td>
</tr>
<tr>
<td>9. Increased participation rates among females and the physically handicapped</td>
<td></td>
</tr>
<tr>
<td>10. A fall in the rate of immigration to Australia.</td>
<td></td>
</tr>
<tr>
<td>11. The RBA and the government raise interest rates and taxes paid by individuals.</td>
<td></td>
</tr>
<tr>
<td>12. A rise in the proportion of the population aged over 15 years.</td>
<td></td>
</tr>
<tr>
<td>13. Government assistance to the unemployed becomes harder to obtain.</td>
<td></td>
</tr>
<tr>
<td>15. Increased use of technology makes more workers’ skills and training inadequate.</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 5.6 Trends in labour market indicators

<table>
<thead>
<tr>
<th>Indicator of Australia’s labour market conditions</th>
<th>Indicates stronger labour market conditions because</th>
<th>Indicates weaker labour market conditions because</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The unemployment rate rises from 4.2 to 7.4 per cent.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Job vacancies rise from 81,000 to 154,000.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The 15–19 year old unemployment rate falls from 25 to 15 per cent.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The overall participation rate falls from 65 to 61 per cent.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Question 6
A Define what is meant by **cyclical unemployment**.
B **Cyclical unemployment** is caused by low levels of AD (low C, I, G, Net X) or expenditure. Explain how the events listed in table 5.7 below would affect the components of AD, and hence alter the level of cyclical unemployment.

TABLE 5.7 Events causing cyclical unemployment

<table>
<thead>
<tr>
<th>Event affecting AD and cyclical unemployment</th>
<th>Explanation of the event’s effect on the level of cyclical unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The US and Japanese economies have moved into recession and their rates of economic growth are getting weaker.</td>
<td></td>
</tr>
<tr>
<td>2. Consumer or household expectations about future income and employment in Australia become very pessimistic.</td>
<td></td>
</tr>
<tr>
<td>3. There is a 20 per cent appreciation or rise in the exchange rate for the A$ against the US$.</td>
<td></td>
</tr>
<tr>
<td>4. The treasurer announces cuts in the rate of company tax from 30 per cent to 25 per cent.</td>
<td></td>
</tr>
<tr>
<td>5. The government increases spending on public works including a new airport and the upgrading of the Melbourne–Sydney railway to cope with faster rail speeds.</td>
<td></td>
</tr>
<tr>
<td>6. The world commodity prices paid to farmers for their exports of wool and wheat again fall.</td>
<td></td>
</tr>
<tr>
<td>7. Australia’s inflation rate falls to only 1.5 per cent making our exports of goods and services far more competitive overseas.</td>
<td></td>
</tr>
</tbody>
</table>
Event affecting AD and cyclical unemployment

8. There is a fall in household disposable income by 5 per cent for the year.

9. There are excellent growing conditions for primary producers overseas in countries to whom Australian farmers normally export.

10. There is a stock market crash and share prices plummet 30 per cent.

11. The Reserve Bank raises the level of interest rates (affecting people with savings deposits and those firms and households who borrow credit).

12. As a result of a successful advertising campaign overseas, the level of foreign tourism to Australia increases to over 3 million visitors.

C Define what is meant by natural unemployment.

D Using table 5.8 identify the type of natural unemployment given in each description.

TABLE 5.8 Descriptions of situations involving various types of natural unemployment

<table>
<thead>
<tr>
<th>Description of situation involving natural unemployment</th>
<th>Giving reasons, what type of natural unemployment is it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. John is retrenched due to the introduction of a new robot involved with welding at the car factory.</td>
<td></td>
</tr>
<tr>
<td>2. Julia loses her job at the textile plant because government tariff cuts have made the firm uncompetitive against imports.</td>
<td></td>
</tr>
<tr>
<td>3. Alfonso is a building contractor who is unemployed for two months between the finish of one job and the start of the next.</td>
<td></td>
</tr>
<tr>
<td>4. Pam finds that she was put off work at Telstra following further privatisation of the company.</td>
<td></td>
</tr>
<tr>
<td>5. Hunter works for the sawmill in the Otways. Unfortunately, this is forced to close down following the withdrawal of government logging licences.</td>
<td></td>
</tr>
<tr>
<td>6. George works for the lift company at Falls Creek during the snow season but is unemployed in September each year when the ski season closes.</td>
<td></td>
</tr>
</tbody>
</table>

E Define structural unemployment and then outline any three important causes. Where possible, illustrate your answer by including examples drawn from newspapers and magazines.

Question 7

A On a fully labelled production possibility diagram for a country producing only ‘goods’ and ‘services’, show a situation where there is around 10 per cent unemployment of resources. Explain the effect of this situation on the country’s material living standards.

B Explain why high levels of unemployment often cause poverty and a more uneven distribution of income and wealth.

C Case study of Jim and Samantha Jones:

Assume that you (Jim) were originally employed as a sales assistant on $670 per week. You have two dependent children under 1 year of age, a dependent spouse (Samantha), a weekly mortgage repayment on your home of $182, food, insurance, out-of-pocket medical and chemist costs, car expenses and so on. You then become unemployed. Unfortunately, government welfare assistance (unemployment and parent benefits) is not generous and your income now falls to only $510 per week. You have no savings or other assets on which to fall back. Draw up your weekly budget, identifying the major items of spending going out and income coming in. What effects would unemployment have on the Jones family?

Question 8

A Define what is meant by the government’s target or goal of full employment.

B List and briefly explain the main differences between government policies used to lower cyclical unemployment and measures to help lower natural unemployment.

C Explain how each of the policies listed in table 5.9 below would affect the level of unemployment. In your answer, indicate which type of unemployment (cyclical unemployment or natural unemployment) would be affected by the policy. Remember, too, that sometimes the effects of policies differ between the short and long terms.

TABLE 5.9 The effects of government policies on unemployment

<table>
<thead>
<tr>
<th>Government policy</th>
<th>Explanation of reasons for the impact on either cyclical or natural unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rates of personal income tax for different tax brackets (i.e. at different income levels) were reduced (e.g. 2003, 2005, 2006, 2007, 2008, 2009, 2010, 2012).</td>
<td></td>
</tr>
<tr>
<td>2. There was a tightening of welfare access for the unemployed (1998–2013).</td>
<td></td>
</tr>
<tr>
<td>3. Interest rates on loans to households and businesses were reduced (2008–09 and 2012–13).</td>
<td></td>
</tr>
<tr>
<td>4. There was a $15.80 per week rise in the legal minimum full-time wage for unskilled workers (July 2013).</td>
<td></td>
</tr>
<tr>
<td>5. The government increased subsidies and tax concessions to business firms in order to promote increased investment spending.</td>
<td></td>
</tr>
<tr>
<td>6. The government ran an expansionary deficit budget as a result of reduced money collected from taxes and increased government spending (2001–02, 2008–14).</td>
<td></td>
</tr>
<tr>
<td>7. There was an attempt to increase the proportion of students staying at school to the end of year 12 so as to raise their skills and training (1990s and 2000s).</td>
<td></td>
</tr>
<tr>
<td>8. General tariff rates were cut on most manufactured goods (1974–96) and on cars, textiles and clothing (as in 2010 and proposed for 2015).</td>
<td></td>
</tr>
<tr>
<td>9. The government pushed ahead with its privatisation program.</td>
<td></td>
</tr>
<tr>
<td>10. There was a rapid increase in the spread of enterprise bargaining among Australian firms where wage rises were based on increases in productivity (1991–2014).</td>
<td></td>
</tr>
</tbody>
</table>
Economic simulation activity —
a population summit

With some modifications, the idea for this activity came from the VCE Study Design for Economics (see VCAA, 2003, pp. 36–7).

Outline of the task

Imagine that the Prime Minister has convened a summit to discuss opinions about the desirable size for Australia’s population by 2050. Three scenarios are to be debated:

1. That the considered optimum population should be increased to 40 million
2. That our optimum population size is about 22 million (i.e. around the current population)
3. That the optimum population size is 15 million (i.e. smaller than our current population).

A range of interesting speakers has been invited to attend. Each will present a 2–4 minute report clearly justifying the economic, social, cultural and political views of the group that is being represented. The PM’s invited representatives will include:

- Australian Chamber of Commerce (ACC) or Business Council of Australia (BCA)
- Australian Council of Trade Unions (ACTU)
- Sustainable Population Australia
- the Australian Population Association
- Nina Abdula — an advocate for refugees and asylum seekers
- Sylvia Littlewood — an unemployed Australian
- the Minister for Immigration
- the Treasurer
- the Minister for Defence
- the Minister for Multicultural Affairs
- the Minister for the Aged
- Betty Beasley — the Australian Consumers’ Association
- the Australian Council of Social Services (ACOSS)
- the Australian Pensioners Association
- Brad Williams — Australian Tertiary Students’ Union
- Lily Li — Australians for Business Migration
- the Liberal Party
- the Democrats
- the Greens or the Australian Conservation Council
- the Australian Labor Party
- the One Nation Party.

Prior to the event

A number of preparations need to be made.

- Students need to select or be allocated among the various guest speakers.
- Working in pairs or singly, students need to be given two class lessons and homework time to research and prepare notes to guide their 2–4 minute presentation. These notes should focus on the following issues:
  - What is your background in the organisation you represent?
  - Why is the group you represent interested in debating the effects of population growth?
  - Which of the three scenarios or views about the desired optimum population do you recommend?
  - What are the reasons for this view that you hold?
  - Outline at least one way of achieving the desired optimum population size for Australia by 2050.
- Students may use overhead projector transparencies, whiteboards, wall charts or a PowerPoint slide show to assist their presentation.
- An appropriate venue or classroom needs to be set up accordingly, with a lectern, seats, a timekeeper with a bell and someone representing the Prime Minister (to provide a welcome, introductory remarks and to order proceedings). Preferably, the event should be scheduled in a double lesson. Morning and afternoon teas with nibbles could also be organised.

Prepare a report following the forum

Following the summit, each student needs to prepare a 700- to 800-word report for the Australian government that discusses the following:

- The reasons why Australia needs a formal population policy and target
- A recommended or preferred optimum population size for Australia by 2050
- The reasons justifying this optimum population target where students involved in the summit use economic analysis to consider the costs (e.g. the environment, urban sprawl, transport, education, health, resource depletion including water) and benefits (e.g. multiculturalism, security, growth in GDP, labour force size, government tax revenue to fund budget outlays).

Some references

There are many useful references available. For instance, start by checking out the Australian Bureau of Statistics (ABS) publications:

- The very informative sections in the Year Book Australia published annually by the ABS, 1301.0 (e.g. for 2011, the relevant section is chapter 7, especially that part outlining three population projection scenarios for Australia). The graph shown in figure 5.31 also appears in this publication and is a useful starting point for ideas.
- Australian Demographic Statistics, 3101.0
- Australian Social Trends, 4102.0
- Population Projections, Australia, 3222.0
- Migration Australia, 3412.0

There is some ‘free’ online data on the ABS website. Look at websites and home pages for some of the groups attending the population forum.

Use the following weblinks in your eBookPLUS to help you prepare for the population forum:

- political parties
- the ACTU
- the Australian Conservation Foundation
- business groups (e.g. the Australian Chamber of Commerce and Industry or Business Council of Australia)
- government departments (e.g. Department of Immigration and Citizenship)
- databases (e.g. Australian Immigration Statistics)
- the Minister for Immigration
- Department of Immigration and Cultural Affairs annual reports
- Sustainable Population Australia.

Economic simulation activity — using an interactive internet game to explore the effects of government policy on unemployment

One interesting way in which students can explore the impact of government economic policy on the level of unemployment is by means of an interactive internet site.
This fantastic site allows students to change government macroeconomic policy (e.g. personal tax rates, interest rates) and then to see the effects of this graphically and in statistical table form, on the performance of the UK economy in areas such as GDP growth and unemployment. Why not have a class competition to see who can create the lowest unemployment rate (without accelerating inflation)? The site is based on an economic model for the UK economy. Students who understand the five-sector model of our economy will have little trouble handling the UK economy. You can even print out graphs showing the impact of your policies on the economy’s GDP, unemployment, inflation and income distribution.

**An essay**

Prepare a 600- to 700-word essay that describes how Australia’s labour market conditions have changed during the last two years (up until the latest monthly figures). In order to do this, follow these steps:

1. **Research recent statistics.** Select four important indicators of trends in Australia’s labour market (e.g. unemployment rates, job vacancies) and access the most recent monthly ABS data (e.g. try using Australian Economic Indicators, ABS, 1350.0; Labour Force, ABS, 6203.0; the RBA online statistics).
2. **Introduction.** Start your essay with an introduction. This should define the labour market and then make a general comment about the overall change in the strength of Australia’s labour market over the last two years.
3. **Interpret trends in each of the four indicators selected.** Following your introduction, create four paragraphs (each with a sub-heading). There should be one paragraph for each of the four indicators you have selected. Each paragraph should contain a graph or table and describe the recent trends, arguing whether you believe labour market conditions are getting stronger or weaker.
4. **Explain the causes of recent trends.** Try to suggest some recent events or factors that may have caused these trends in labour market conditions.
5. **Conclusion:** Draw a brief conclusion.

**A class debate**

After dividing into teams (one for the affirmative and one for the negative), work with others to prepare a debate on one of the following topics:

1. ‘Australia must populate or perish.’
2. ‘Government assistance to the unemployed is too generous and only encourages unemployment.’
3. ‘Australia has a moral obligation to show compassion towards asylum seekers and illegal entrants.’

**Analysis of evidence — statistical data for Eureka**

Before answering the following questions, examine the statistical data in table 5.10 (p. 216) for a hypothetical country, Eureka.

1. Using the key indicators from table 5.10 and explaining your reasoning, describe the trends in Eureka’s labour market conditions between 2011–12 and 2015–16.
2. Which type of unemployment would have increased sharply during some of the years shown?
3. Using the table and quoting figures to help support your case, identify and explain three specific causes of these trends in Eureka’s unemployment.
4. Describe how the change in Eureka’s unemployment rate between 2011–12 and 2015–16 would be likely to affect each of the following:
   - the cost of government assistance for the unemployed
   - general living standards
   - the level of government tax revenue collected from income earners and from the GST
   - families.
5. If you were Eureka’s treasurer or governor of the Reserve Bank in 2013–14 to 2015–16 and wanted to achieve the goal of full employment, prepare a brief speech outlining the main policies you would introduce.
Analysis of statistical evidence — the impact of the global financial crisis and recession on Australia’s unemployment rate

Examine figure 5.32 (p. 217) containing data prepared by the Reserve Bank of Australia (RBA), relating to Australia and overseas countries during the years to 2009 (including the global recession and financial crisis of 2008–09). Your task is to analyse these data and answer the questions that follow.

1. Using the graphs and quoting statistics to support your claims, describe the nature of the economic situation that developed abroad during 2008–09.
2. Using the graphs and quoting statistics, identify and explain four important effects on Australia’s economy, of the external situation that developed in 2008–09.

A presentation about unemployment

Using a computer with PowerPoint, prepare a data show for a class presentation about unemployment consisting of at least five slides. You may decide to select from the following areas (or suggest your own):
• Define what is meant by unemployment.
• Using a graph or table, describe trends in labour market conditions (e.g. for Australia, Victoria, your region) over recent times (e.g. perhaps in the three years up until the latest monthly figures of the current year).
• Explain the two main types or causes of unemployment in Australia.
• Provide a case study of unemployment in your town or suburb caused by the closure of a local business or some other event.
• Look at or evaluate the good and bad effects on unemployment and employment of any two government policies (e.g. tariff cuts, the budget surplus, tax reform, working for the dole).
• How has unemployment affected your family or one of your friends?

Report on an investigation — economist, John Maynard Keynes

The task for investigation
John Maynard Keynes was a famous British economist who wrote about unemployment during the later 1930s following the end of the Great Depression. The effects of this depression were felt around the world. Here in Australia, more than 30 per cent of workers had no job by 1932; social unrest increased and families suffered great economic hardship.

Perhaps you could research some of the following areas:
• When was Keynes born and when did he die?
• Where was he educated?
• What jobs did he have during his career?
• What was the name of his book in which he wrote about the cause of and solutions to unemployment?
• What did Keynes believe was the main cause of unemployment during a depression?
• What government policies did Keynes recommend to reduce unemployment during a depression?
• What was the main weakness of his theory of unemployment?

Presentation of your research
There are many ways you could present your work:
• a wall chart
• a report
• a multimedia presentation (e.g. PowerPoint slides, overhead transparencies)
• an essay
• a class talk or presentation.

References
A good place to start your research is on the internet or in your school or local library:
• try searching the internet using search engines and approved websites
• online and other encyclopedias (e.g. perhaps Wikipedia, Encarta Encyclopedia on CD-ROM is a great starting place)
• reference textbooks about economics and economic theory.

A report on an investigation — The Great Depression

The task for investigation
The year 2008–09 (the year of the GFC) marked the eightieth anniversary of the start of the Great Depression. Your task here is to carry out some research into the Great Depression, 1929–33. You could examine:
• the causes of the Great Depression both here and in the US
• the effects of the Great Depression (e.g. on unemployment, on business, on share prices, on families and living standards)
• the remedies for the Great Depression used by governments of the day (e.g. in the US or Australia).

Presentation of your research
There are many ways you could present your work:
• a wall chart (perhaps set out like a front page of a 1930s newspaper with headlines, ads, photos, cartoons and graphs)
• a report or essay
• a multimedia presentation (e.g. PowerPoint slides, overhead transparencies)
• a class talk.
**Graph 1—Australia's change in consumer confidence**

*Consumer sentiment*

Long-run average—100

*Seasonally adjusted

Sources: Melbourne Institute and Westpac.

**Graph 2—Change in business conditions and confidence by Australian firms**

NAB Business Survey

Net balance; deviation from long-run average

**Graph 3—Change in unemployment rates in Australia and the US**

Australian and US unemployment rates

**Graph 4—Changes in the value of Australia's exports and imports to selected areas**

Export and import values

*Value in US$ terms

Sources: CEIC: Thomson Reuters.

**Graph 5—Changes in the interest rate set by the RBA in Australia and the Federal Reserve in the US**

Australian and US cash rates

**Graph 6—Changes in GDP growth rates among Australia's 5 biggest export markets**

<table>
<thead>
<tr>
<th>Australia's five largest export markets (per cent)</th>
<th>GDP growth Dec quarter 2008–09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of Australia's merchandise exports</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>19.3</td>
</tr>
<tr>
<td>China</td>
<td>14.9</td>
</tr>
<tr>
<td>Korea</td>
<td>7.9</td>
</tr>
<tr>
<td>Euro area</td>
<td>6.2</td>
</tr>
<tr>
<td>United States</td>
<td>5.9</td>
</tr>
</tbody>
</table>

**FIGURE 5.32** Indicators showing the impact of the recent global recession and financial crisis

Source: Graphs 1 and 5 were reproduced from RBA, A collection of graphs on the Australian economy and financial markets (April, 2009); and graphs 2, 3, 4 and 6 were from The Economic Landscape in 2009, Malcolm Edey, Assistant Governor (Economic), address to Australian Industry Group Annual Economic Forum, Sydney, 4 March 2009.
A report on an investigation — the global financial crisis and recession, 2008–09 to ?

The task for investigation
The year 2008–09 also marked the start of perhaps the most severe global financial crisis and recession since the Great Depression (more than 80 years ago). At the time, there were many parallels with 1929–33. As with the Great Depression, this recent event also had its origins in the US and mass global unemployment was the result, with over 200 million people out of work and the world’s GDP projected to shrink by at least 4.5 per cent. Again, you could examine:
• the causes of the global financial crisis and recession (starting in the US and then spreading around the world)
• the effects of the global financial crisis and recession (e.g. on unemployment, on business, on share prices, on families and living standards, here and abroad)
• the remedies for the global financial crisis and recession used by governments here and overseas, along with international cooperation to overcome the problem.

Presentation of your research
There are many ways you could present your work:
• a wall chart
• a report or essay
• a multimedia presentation (e.g. PowerPoint slides, overhead transparencies)
• a class talk.

Analysis of visual evidence — a cartoon
There are many cartoons in this text that can be used to extend a student’s understanding of economics. Examine the cartoons using the following questions as a guide.
• What is the economic concept being presented in the cartoon?
• What is the main message of the cartoon?
• What is your reaction to the cartoon? Do you agree with what it is saying?
• Is the message of the cartoon politically biased or distorted in some way? Explain your answer.

A folio of annotated media commentaries using print or electronic materials
Carefully select four newspaper articles for a folio about the economic challenges presented by the problem of unemployment. For instance, these media commentaries may report:
• the latest employment and unemployment trends
• the causes of recent unemployment or employment trends
• the effects of unemployment
• government policies (here and overseas) to reduce unemployment and to create more jobs.
Annotate these articles where you identify, explain and discuss the major ideas. These extracts may come from various sources including print (i.e. newspapers and magazines) or the internet. Be sure to indicate clearly or footnote the source of this information.

View a DVD or program
In order to understand the dynamics of population growth and the operation of the labour market, view some of the following DVDs or programs.
1. *Insight* ‘Migration boom’ (SBS 1, 26/7/11)
2. *Insight* ‘A bigger Australia’ (SBS 1, 18/5/10 about the desirable population size for Australia)
3. *Baby Boom to Bust — the Grey Tsunami* (SBS 2, 5/3/09)
4. *Cutting Edge* ‘Baby crash’ (SBS 30/7/02)
5. Immigrant Nation: the Secret History of Us (SBS 2, 23/2/11)
6. *Four Corners* ‘The Perfect Storm’ (ABC, 9/2/09, about the GFC)
7. *Four Corners* ‘The New Wave’ (ABC, 20/4/09, about the effects of the GFC on Wollongong)
8. *Requiem for Detroit* (ABC, 6/10/10 about the effects of the decline in the car industry in the US)
9. ‘The Great Depression — Part I, Post war boom and bust’ (ABC program 2, in the series, Economic Australia)
10. ‘The Great Depression — Part II, Global hardships of the ’30s, economic solutions and the road to war’ (ABC program 2, in the series, Economic Australia)
13. *Is Australia’s population growth sustainable?* (VEA, 2010)
14. *Dick Smith, population puzzle* (ABC 1, 12 August 2010)
CHAPTER 5

SUMMARY

The nature of living standards
Overall living standards are affected by two elements:
• Material living standards affected by the level of real income or consumption per person per year
• Non-material living standards affected by factors that influence the quality of life such as happiness, pollution, job satisfaction.
The growth, composition and distribution of Australia’s population, along with levels of employment and unemployment, clearly impact on living standards.

Factors affecting Australia’s population size, composition and distribution
• Australia’s population size and growth are determined by:
  – the rate of natural increase (the birth rate minus the death rate) and
  – the rate of net migration (the rate of immigration minus the rate of emigration).
• These two determinants of population growth are affected by economic, social and political factors.
• The distribution of the population refers to the way people are spread according to different age groups, gender, ethnic background, state and region. Population pyramids can be used to show the age-sex distribution.

The economic consequences of demographic change and their effects on living standards
• Demographic trends relate to changes in the characteristics of Australia’s population (e.g. size, age and geographic location).
• Demographic changes can have good and bad effects on living standards:
  – economic effects (e.g. the capacity to grow production, the effect on size of the market for goods and services, economies of large scale for businesses, allocation of resources, government tax revenue and spending outlays)
  – social (e.g. cultural diversity, social cohesion) and environmental (e.g., increased CO₂ emissions, resource depletion, transport congestion, and water and waste disposal issues).
• Some people claim that given the economic resources of a country, there is an optimum population size that maximises production, incomes and material living standards.
• Countries where population is too small for the resources available are seen as underpopulated, while countries where population is too big for the resources available are overpopulated. Even so, the concept has its critics who point to its failure to consider non-economic impacts (e.g. environmental problems).

An overview of population policies in Australia and internationally
• Population policies seek to affect the growth and size of a nation’s population.
• Especially since the end of World War II, Australia has sought to grow its population through measures such as immigration, payment of a baby bonus and helping to make raising children more affordable and attractive.
• China has enforced a one-child policy that is designed to slow population growth, and reduce the social, economic and environmental issues associated with having more people.
• India has attempted to slow population growth by improving access to contraception, and attempts to reduce child mortality that contributes to parents having larger families to ensure survival.

The nature of employment and unemployment, paid and unpaid work
• People work for all sorts of reasons — to earn money to buy things, for self-esteem, to prevent boredom, to meet and help others and to provide a creative outlet.
• There are two types of work — paid and unpaid work.
  – Paid work is where people are employed for wages. Here, pay rates are largely determined by the forces of demand and supply in the labour market. For instance, high
pay rates reflect a limited supply relative to a strong demand for a particular type of worker (e.g. skilled company director, experienced AFL footballer or doctor).

– **Unpaid work** (e.g. charity collectors, emergency service workers, carers, some sports coaches) is that performed by many volunteers out of the goodness of their hearts.

### Measurement of Australia’s labour market conditions

- The ABS uses the *Labour Force Survey* to measure statistical indicators of *labour market conditions*.

- Labour market conditions are getting **stronger** if the demand for labour by firms making goods and services rises (as occurs during a boom or period of strong economic growth) relative to a falling supply of willing staff.

- Labour market conditions are getting **weaker** if the supply of labour rises or the demand for labour falls (as occurs during a slowdown in economic growth).

- In its survey, the ABS defines the *labour force* as all those aged over 15 years who are able and willing to work and includes both **employed** and **unemployed** persons.

  - **Employed persons** are full- or part-time workers with jobs or those who were prevented from working due to, for example, illness or strikes.

  - **Unemployed persons** are those who were without work but who were actively looking.

- The ABS survey also collects data about the participation rate, job vacancies, hours worked, duration, incidence, and unemployment by age and education.

### Recent trends in Australia’s labour market

- Labour market conditions change over time — they may become:

  - **ideal** (the D is more or less equal to the S of labour and there is ‘full employment’)

  - **stronger** (the D for labour is rising relative to S as occurs in an expansion or boom)

  - **weaker** (the S of labour is rising relative to D as occurs in a downturn or recession).

  - Over the 22 years between 1992 and 2014, Australia’s labour market conditions mostly strengthened. For example:

    - Unemployment fell from a high of 11 per cent in 1992–93 to a 34-year monthly low of just 3.9 per cent in February 2008

    - Unemployment rose in late 2008–09 and 2009–10 to 5.8 per cent in July 2009 due to the global financial crisis and recession

    - Unemployment rates generally fell during 2009–11, before rising to 6.0 per cent again by February 2014.

    - There were also changes in the *incidence of employment and unemployment* (how these aspects are spread across different industries, states, regions or groups). For instance, there was a dramatic rise in employment in property, business services, culture, recreation, health, community services and education. For unemployment, rates were highest among 15–19 year olds, the unskilled, workers in manufacturing, residents of Tasmania, males and those from particular ethnic backgrounds.

### Causes or types of unemployment

Two types of factors cause unemployment in Australia:

- **Causes of cyclical unemployment**
  
  - Weak aggregate demand-side conditions can slow spending or AD (slow C + I + G + X – M), lower GDP and cause increased cyclical unemployment as the economy slows down and enters recession.
  
  - Weak demand-side conditions reflect poor consumer and business confidence, lower disposable income, a recession overseas, higher interest rates, higher taxes and reduced government spending.

- **Causes of structural and natural unemployment**
  
  - Sometimes aggregate supply-side conditions change and can result in natural unemployment. For instance, these supply-side factors could include business closures because of rising costs (e.g. wages, interest rates, raw materials, taxes), low worker efficiency, use of new technology that replaces workers, drought and falling business profits.

  - The main type of natural unemployment is *structural unemployment* (due to new technology, a mismatch between the skills of unemployed workers and the jobs on offer, cost cutting by firms, government microeconomic policy, globalisation, relocation of businesses, low profits).
– Other types of natural unemployment include frictional, hard-core and seasonal unemployment.

**Effects of changes in employment and unemployment levels**

Unemployment is usually seen as a bad thing since it generally erodes Australian living standards.

- Families suffer a dramatic drop in disposable income, poverty, stress, lack of self-esteem, tensions, marriage break-ups, health problems.
- Nationally, the economy is operating at below its productive capacity due to idle resources. This reduces income and living standards.
- Governments experience financial difficulties due to less tax revenue (fewer taxpayers earning good incomes) and greater welfare outlays (e.g. for assistance to the unemployed).

**Government policies to increase employment and reduce unemployment**

- The Australian government deliberately seeks to create jobs, reduce unemployment and improve our living standards.
- Government policies to reduce unemployment (to achieve the full employment target of around 4.5 to 5.0 per cent unemployment) involve two types:
  - **Expansionary macroeconomic, demand-side policies** can lift the level of AD and reduce cyclical unemployment.
    - Budgetary policies could involve a budget deficit with cuts in taxes and rises in government spending (e.g. 2008–09 and 2013–14).
    - RBA monetary policy could lower interest rates to make credit cheaper to encourage borrowing (e.g. 2008–09, 2011–12–13).
    - In both cases, measures raise spending (AD), production (GDP) and the demand for labour by firms. This reduces cyclical unemployment.
  - **Microeconomic, aggregate supply-side policies** can be used to make local firms more efficient and competitive. These measures help to make firms more profitable so they expand rather than close down, thereby reducing natural (especially structural) unemployment in the long term. For example, government policies might include the following:
    - Labour market reforms to encourage productivity-based enterprise or workplace bargaining to help keep costs lower, improve profits and competitiveness, and encourage business expansion. This reduces structural unemployment. In addition, slowing the growth in the minimum wage to improve business profits and competitiveness can also help reduce business closures and promote business expansion. Easing unfair dismissal laws may help entice firms to take on new staff, reducing structural unemployment.
    - Cutting the rate of company tax to lift after-tax profits, improve competitiveness, promote business expansion and reduce the number of business closures, thereby reducing structural unemployment.
    - Government spending on national infrastructure projects may help cut production costs for local firms and encourage their expansion, thus reducing structural unemployment.
    - Government outlays on education and training make people more employable. Retraining the unemployed to make them more employable, reducing structural unemployment.
    - Welfare reforms may help to encourage participation in the labour force and work.
    - One problem with some of these aggregate supply-side policies is that they may increase structural unemployment in the short term. In the long term, greater competitiveness and better profits should help to avoid business closures and encourage firms to expand their operations and staff.
CONCEPT MAP 5
Population, employment and change

Australia’s population has grown from four million in 1900 to around 23 million in 2012.

Our population growth reflects
- Natural increase—birth minus death rates
- Net migration—immigration minus emigration rates
These factors are influenced by economic, social and political factors.

Population distribution involves
- Age distribution—an ageing population
- Ethnic distribution by country of origin—increase in those born overseas
- The rural and urban distribution—a decline in the rural population

Social and environmental effects
- Cultural diversity and multiculturalism makes for a richer society
- Possibility of reduced social cohesion in times of crisis
- Rapid population growth accelerates environmental problems

Most Australians aged 15 years and over
Paid work—wages reflect conditions of demand and supply for each different type of labour.
Why we work
- Work is a necessity for most to earn income and buy things.
- Work brings self-esteem.
- Work helps escape loneliness and boredom.
- Work can be creative and help others.

Unpaid or voluntary work involves helping others through welfare and care organisations, sporting clubs and emergency services.

The ABS labour force survey measures aspects of Australia’s labour force including

<table>
<thead>
<tr>
<th>Labour force size</th>
<th>Employment rates</th>
<th>Unemployment rates</th>
<th>Participation rates</th>
<th>Hours worked</th>
<th>Duration of unemployment</th>
<th>Aspects of the incidence of unemployment</th>
</tr>
</thead>
</table>

Australia’s labour market conditions have changed cyclically and mainly depend on the conditions of demand for and supply of labour (as reflected in the above indicators).

Stronger conditions (e.g. lower unemployment and more job vacancies)
Ideal conditions (i.e. around 4.5–5 per cent unemployment)
Weaker conditions (e.g. higher unemployment and fewer job vacancies)

Causes of and influences on employment and unemployment:
Cyclical unemployment is due to weak AD (C + I + G + X – M) and slow economic growth reflecting poor consumer and business confidence, lower disposable income, high interest and tax rates, a high exchange rate and weak overseas economic conditions.

Natural unemployment often reflects structural change, as well as frictional, seasonal and hard-core factors. It results from changes in supply-side conditions (e.g. new technology, microeconomic policies, globalisation, poor profitability, the welfare system for poverty trap, work ethic and competitiveness) affecting employment and unemployment.
The effects of employment and unemployment include:

- **The effect on individuals**—unemployment means lower income and living standards, more poverty, weak self image, and health problems.
- **The effect on the economy**—a drop in national production and living standards due to wasted productive capacity and idle resources.
- **The effect on governments**—unemployment lowers the number of taxpayers and revenue collected and yet means higher outlays on welfare.

A mixture of government policies seeks to create jobs and reduce unemployment.

Use aggregate supply or microeconomic policies to help lower natural unemployment (especially structural unemployment) in the long term. Jobs are increased and unemployment is eventually reduced by policies to cut costs, lift profits, and improve business efficiency and competitiveness, for example:
- Labour market reforms
- Cutting tax rates
- Tighter welfare
- Spending on education and training
- Spending on infrastructure projects.

Use aggregate demand or macroeconomic policies to reduce short-term cyclical unemployment and help maintain full employment. Jobs are increased and cyclical unemployment reduced by expansionary macroeconomic policies designed to boost AD, encourage firms to lift production and employ more labour, for example:
- Expansionary budgetary measures (e.g. budget deficits) involving tax cuts and higher government spending
- Expansionary monetary policy by the RBA involving lower interest rates on loans to households and businesses.