Unit 1

Economic choices and consequences
Introduction: Australia, a market economic system

1.1 What is economics about?
Economics is the study of how to use our limited resources wisely and in ways that help to make individuals and society better off materially, so that living standards increase. Individuals and countries constantly face a range of problems, many of them economic in nature. These include:
- whether to continue with schooling or go out and look for work
- whether to save or spend pocket money
- whether businesses should produce iPhones, hamburgers, jeans, uranium or wool
- whether to build new childcare centres, parks or roads
- whether to provide more foreign aid to poor countries or increase national defence
- whether to allow mining in national parks or on sacred Aboriginal sites, or preserve them as they are.

The two branches of economics
These matters — and almost any other economic issue — can be examined at two different levels, through the study of microeconomics and the study of macroeconomics. This is summarised in figure 1.2 (p. 4).
Microeconomics

Microeconomics often looks at the factors that influence the small bits, units or various parts making up the overall Australian economy. For instance, it concerns the things that affect the operations, production costs, prices received by and profitability of a particular firm (e.g. National Australia Bank, BHP-Billiton, Woolworths), industry (e.g. the childcare, fashion, car, egg and woodchip industries), a market (e.g. oil, barley, uranium, property, labour, wool) or a sector in the economy (e.g. financial, export and government sectors).

Macroeconomics

Macroeconomics takes a ‘bird’s-eye’ look at the whole economy and the larger flows affecting overall economic conditions in the country: boom times, when the economy is growing too fast, or recessionary periods, when there is a downturn in the economy. Macroeconomics, therefore, looks at the bigger picture, particularly whether the economy is experiencing inflation (where average prices are rising), or unemployment (where those willing to work cannot find it). It is concerned with levels of national spending, national production (measured by gross domestic product or GDP) and national incomes, as well as the country’s overall unemployment and inflation rates.

The study of economics has two main branches

Microeconomics might study:
- A particular firm
- An industry
- An individual market

Macroeconomics might study:
- National spending
- National production
- National unemployment
- The nation’s inflation rate

1.2 People’s unlimited needs and wants

All of us have both needs and wants. In order to live, we need a certain quantity of essential food, shelter, healthcare and clothing. In addition, all of us want, or would like to have, many other less essential things to make life more pleasant. Overall, we say that our wants are virtually unlimited.

People’s wants appear to be unlimited because:

- as one want is satisfied, another appears (e.g. the latest model mobile phone)
- the more material things people have, the more they want and expect, as a result of advertising, fashions and the spread of materialism
- the world’s population is growing
- planned obsolescence by manufacturers ensures that things date, wear out quickly and cannot be repaired
- some people try to keep up materially with their friends by owning the latest things.

When people, governments or businesses actually try to satisfy their needs and wants by spending or using income to buy goods and services, they create a demand. There is a final demand for both finished goods (i.e. tangible things that may be single-use items like food, or durables such as a DVD player) and services (i.e. intangibles like appliance repairs, rock concerts, medical care), as well as a derived demand for the resources needed to make these things.
1.3 The limited supply of resources available for use in production

**Resources** are the ‘inputs’ used in the production or supply of goods or services. Without resources (also called factors of production), no goods and services can be produced. Here, national output (measured by the gross domestic product or GDP) would be zero. There are two key things that limit or determine a nation’s potential level of GDP, or the economy’s productive capacity:

1. the volume or quantity of resources available for use
2. how efficiently the available resources are being employed (i.e. efficiency or productivity reflects the level of output produced from each unit of input or resource used).

By limiting the volume of goods and services that can be produced by a country, resources also affect a nation’s material living standards.

There are three main types of resource or productive inputs supplied or made available in the economy — natural resources, labour resources (including entrepreneurship) and resources that involve capital equipment. These are summarised below.

**Types of resources in the economy**

- **Natural resources.** Natural resources are the productive inputs that occur in nature (e.g. soils for agriculture, mineral deposits, forests, native animals, oceans, climate, rivers, and clean air and environment).
- **Labour resources.** Labour resources are the various intellectual talents, as well as the physical power, provided by the labour force (e.g. a doctor, mechanic, retail attendant, banker).
- **Capital resources.** Capital equipment or capital resources involve manufactured or producer goods. This includes the physical plant and machinery (that may incorporate new technology) that are used by a firm to help make other finished goods and services. Investment in capital equipment (i.e. ‘physical’ capital as opposed to ‘money’ capital) is very important because it helps to increase the productivity or efficiency of labour and natural resources.
Relative scarcity occurs when a nation has limited resources available for the production of goods and services, compared with people’s wants that are virtually unlimited. Despite this, some resources are also relatively scarcer than others and this is reflected in price differences.

Efficiency relates to the level of output per unit of input. Higher efficiency means more production of goods and services is gained from the same or fewer resources.

Price is the money cost of a good or service and is a common measure of the relative scarcity of a good or service.

**FIGURE 1.5** We face scarcity because people’s wants or demands exceed the available resources needed for the production or supply of goods and services. This is called the problem of relative scarcity.

1. **What is meant by the economic problem of relative scarcity?**
2. **Giving examples, explain how the price of a particular good or service is a guide to how scarce it is.**

**1.4 The problem of relative scarcity**

Relative scarcity is the basic economic problem or assumption in economics. It arises because the volume (i.e. quantity) and/or efficiency (i.e. quality) of resources available for production is finite or limited, relative to the level of people’s needs and wants — which are virtually unlimited. In other words, people demand more goods and services than firms or businesses can supply or produce from the limited resources available for use. By contrast, if the supply of resources was infinite, all wants could be satisfied, and all goods and services would presumably be available free of charge. Unfortunately, most material things we want have a price because they are scarce, relative to our unlimited wants. As a general rule, scarcer items and resources command a higher price than more readily available things.

Because of scarcity, individuals and nations cannot possibly have all the things they desire. Hence, the existence of relative scarcity limits society’s material living standards. However, those nations that have access to more resources or use those resources more efficiently, can enjoy relatively better levels of physical wellbeing because they can produce more things. They can usually avoid starvation and disease; they can anticipate a longer life expectancy, and can enjoy better levels of nutrition, healthcare, education, transport and housing. In addition, their consumers have a much richer choice.

**1.5 Choice and the concept of opportunity cost**

Given the basic economic problem of relative scarcity, there are limits on the quantity of goods and services that a country can produce (i.e. the level of its GDP is held down). Not all the wants of individuals and society can be satisfied using the resources currently available. As a result, we are forced to make economic choices between the production of one particular type of good or service and the production of another. For instance, countries using or allocating resources to the production of defence cannot devote those same resources to childcare, education, health or public transport. Similarly, natural resources used for mining or logging cannot be used for recreation or tourism. At the personal level, if you choose to devote your time and money to go surfing or to buy an ice-cream, you cannot then use those same resources to have a holiday or go to the cinema. Clearly, choices must be made based on your priorities. Unfortunately, making these choices usually involves sacrificing one thing to have something else. That is, there is an opportunity cost.

Thus, opportunity cost arises whenever choices are made between alternative types of production. Opportunity cost relates to the value of production foregone (i.e. given up) when resources are used for one purpose rather than another.

Among other things, economists use the production possibility diagram to illustrate the many output choices available for a hypothetical country that produces only two things. As shown in figure 1.6 (p. 7) and its associated table, this nation can produce either ‘goods’ (shown on the vertical axis) or ‘services’ (shown on the horizontal axis). For simplicity, one unit of ‘goods’ has been made exactly equal in money value (i.e. $ million) to one unit of ‘services’ so that comparisons can be easily made.

Let us have a closer look at the interesting features of the production possibility diagram (figure 1.6).
Some interesting features of the production possibility diagram

- A nation’s productive capacity and its determinants. The production possibility frontier (PPF) traces out the physical limits of a nation’s total production or quantity of goods and services that could be supplied. The PPF shows the country’s productive capacity or potential level of GDP. The size of this frontier depends on two things. First, the volume or quantity of resources available affects our productive capacity. For example, this could grow as a result of new discoveries of natural resources, population growth or the purchase of new capital resources. Second, how efficiently these resources are employed affects our productive capacity. Efficiency (i.e. the output from a unit of input or resource) might increase over time as a result of businesses applying new technology or workers increasing their level of skill or training. Hence, using figure 1.6, the potential annual real value of ‘goods’ that could be produced occurs at point ‘A’ on the PPF. Here the production of ‘goods’ is limited to a maximum of $15 million (provided that there were no ‘services’ produced). However, at the other extreme on the PPF, point ‘E’ shows that the maximum possible production of ‘services’ is only $10 million (provided that no ‘goods’ were produced). Between these extremes, there are many other production possibilities (e.g. points B, C and D) involving various output combinations of ‘goods’ and ‘services’.

- Opportunity cost. Any choice or production combination (e.g. A, B, C, D and E) that is located along the PPF involves an opportunity cost. That is, output of one type of production (e.g. ‘services’) must be sacrificed or given up in order to gain extra resources to lift production in another area (e.g. ‘goods’). For example, what is the opportunity cost of a decision by the country to produce at point ‘A’? Here, in order to have the maximum of $15 million worth of ‘goods’ produced, there is the loss of all $10 million worth of ‘services’. Alternatively, a choice made by the country to operate at point ‘E’ and to lift the production of ‘services’ from $0 to $10 million, involves cutting the output of ‘goods’ from $15 million to $0 million. This means that there is an opportunity cost of $15 million of ‘goods’.

- Maximum efficiency in the use of resources. Efficiency is about getting a bigger output of goods and services from the available resources or inputs. The most efficient allocation of resources or choice in production for a country would occur at a point on the PPF where the combined value of both ‘goods’ and ‘services’ produced was at its maximum. From the diagram, it is clear that the country shown is a generally more efficient producer of ‘goods’ than it is of ‘services’, since the same resources can be used to make $15 million of ‘goods’ compared with only $10 million of ‘services’. However, although the country should mainly specialise in the production of ‘goods’, it would still be efficient to produce some ‘services’. In fact, as shown in figure 1.6, the most efficient choice that maximises national output would be at point ‘B’. Here, the production of ‘goods’ is $13 million, along with another $5 million of ‘services’ making for a national output or GDP totalling $18 million! No other production possibility or choice can match this total level of national output, nor offer the people such high incomes or material living standards. Clearly, this is the most logical choice or economic decision since there is maximum satisfaction of society’s material wants.

- Unemployment and poverty. Unemployment exists when those who want a job can’t find work. At any point inside the PPF (say at point ‘U’ on figure 1.6), output levels are below
Poverty occurs when individuals have insufficient income to purchase basic goods and services and therefore do not enjoy reasonable living standards.

1 How do economists show the concept of choice, diagrammatically?
2 What does the production possibility frontier (PPF) represent?
3 What two general factors dictate the size of a nation’s PPF or productive capacity?
4 What factors or developments could cause the size of the PPF to grow over a number of years and shift outwards on the diagram?
5 What is opportunity cost? Give an example of how this may apply to decisions made by (i) the government (ii) a business and (iii) yourself.
6 What problems arise if a country is located (i) inside its PPF, (ii) outside its PPF?

Inflation exists when the prices of most consumer goods and services are rising, thereby reducing the purchasing power of money. Economic growth exists when a nation increases the total value of goods and services produced between one year and the next, after allowing for inflation. A country’s economy or economic system is an institution designed to help organise the production and distribution of goods and services, and the nation’s income. There are different types of system including market capitalism and planned socialism.

The system of ownership involves who owns the means of production and various businesses (e.g. farms, mines, shops, banks) – whether there are private owners (called a capitalist system) or whether the government owns most businesses (called a socialist system).

FIGURE 1.7 Karl Marx believed in a socialist/communist system where there was collective ownership of the means of production, and incomes, goods and services were distributed according to people’s needs.

1.6 Four possible types of economic system

Because resources are relatively scarce, there is a need to use them wisely if people are to enjoy good living standards. For this reason, all countries have an economy or economic system. Economic systems are needed to help organise the production and distribution of goods, services and incomes. In particular, there are two main features that are used to describe all types of economic system:

1. The system of ownership
2. The system used for economic decision making.

Now, let us take a closer look at these two distinguishing features.

The system of business ownership varies between economies

All countries and economies have a system of ownership for resources and businesses. As shown in figure 1.8 (see p. 9), there is a choice for countries between the extremes of capitalism and socialism. On one extreme, a dominance of capitalism means that most enterprises or the means of production — farms, mines, banks, factories, retail outlets and so on, are privately owned. At the other extreme, there is socialism. Here, there is a dominance of government or state-owned enterprise.
The system used for making economic decisions varies between economies

All nations and economies have a system for making economic decisions about production and how it is divided or shared between individuals. Here, there are at least three big economic questions to be answered.

1. **What types of goods and services and how much is to be produced?**

   All societies need to decide what types of each particular good or service should be produced in order to best satisfy needs and wants and raise living standards. For instance, should a farmer produce wool or wheat? Should jeans or iPods be made? Should a freeway be built or a new school? In addition, in what quantities should each of these items be produced?

2. **How should production be organised?**

   Having decided what things need to be produced, there is then the question of ‘how’ production should be organised. Organisation refers to the production methods to be used for making each particular good or service. This could involve deciding what combination of labour and physical capital (technology) should be used. For example, in producing cars, should labour resources be replaced with robots? Of course, the answer to this question might depend on the relative scarcity or cost of each type of resource, and whether businesses are trying to minimise costs and maximise their profits.

3. **For whom are the goods, services and incomes to be produced?**

   The ‘for whom’ question refers to how the country’s income, goods and services that have been created during production, should be shared or distributed among individuals. For instance, the nation’s ‘income cake’ could be divided up between individuals evenly, or distributed unevenly. In addition, should people’s income be based on what they need, or should it reflect the market value or relative scarcity of the resources they have contributed in producing goods and services?

   As shown in figure 1.9 below, there are different types of decision-making systems used in different countries to answer these three basic questions (i.e. what, how and for whom to produce).

   On one hand, some countries rely mainly on the free market or price system to make these choices or economic decisions. Here, there is consumer sovereignty or control by buyers. Resources only go into making the things that people buy and that are profitable to produce. At the other extreme, these three decisions could be made by using government economic planning. Here, there is government control or sovereignty where orders or instructions flow from the top of government down to workers, like a command system. Often this involves government five-year economic plans.

**Classifying the world’s economic systems**

Using the system of ownership and system of decision making, we can classify all the world’s economies into four main types. These can be illustrated on an economic systems diagram, as shown in figure 1.10 (see p. 10).

**The four types of economic system**

As shown in figure 1.10, economic systems can be classified into four main types.

1. **The market capitalist system.** Market capitalism is used today in most countries including Australia, the United States, France, Germany, Malaysia, Japan, the United Kingdom and South Africa. Generally, in the market system, changing price signals indicate to the owners of resources what things consumers want or do not want to
see produced. They decide the way resources are allocated. The price system also largely decides people’s income levels. In addition, under capitalism, most production (e.g. agriculture, manufacturing and services including banking, retail, health and communications) occurs in the private sector rather than the government sector. Private enterprise dominates.

**FIGURE 1.10** Classifying various types of economies using an economic systems diagram

- **Planned socialism** means that the economic system mainly involves decision-making through government economic planning and there is much state or government ownership of business or the means of production.

- **Market socialism** means that the economic system mainly involves decision-making through the market or price system, and there is much state ownership of business or the means of production.

**FIGURE 1.11** Until fairly recently, China was a planned socialist economy under Chairman Mao Tse Tung, where the government not only owned most of the means of production and businesses, but it also planned what, how and for whom goods and services were produced.

2. The planned socialist system. **Planned socialism** has fallen from popularity since the late 1980s. Nowadays, Cuba and especially North Korea are the two main remaining examples. Government economic planning (perhaps involving detailed five-year plans) dictates national output targets or volumes for most key industries. These plans involve government orders about the type and quantity of goods and services to be produced, the prices at which they will be sold, and how much income people will be paid. Furthermore, socialism implies state ownership of most resources and businesses, including retail stores, banks, manufacturing firms, hospitals, airlines, railways and farms, again adding to the government’s control of the economy.

3. The market socialist economy. Until fairly recently, the market socialist system was popular in China, Vietnam, the Ukraine, and the Scandinavian countries of Norway and Sweden. These economies relied on consumers and the market or price system to tell producers what things to make, and most businesses
were owned by the government. However, following extensive privatisation (i.e. sale of government-owned firms to private individuals) over the past 20 to 30 years to 2015, most of these economies have made significant transition towards market capitalism.

4. The planned capitalist economy. Planned capitalism as an economic system is currently extinct, although it was used by Nazi Germany, Argentina and Italy during World War II. It involves an unusual combination of government economic planning or direction about how resources are to be used (e.g. to produce defence equipment and other supplies to help the war effort) while, at the same time, retaining the outward features of capitalism or private enterprise.

**Convergence — the attractions of market capitalism**

There are many reasons for the great variety of economic systems in the world. For example, countries have different historical experiences, face different problems, are at diverse stages of economic progress and believe in different values. Even so, during the last decade of the twentieth century, dramatic economic change swept through many parts of the world, causing a general transition or shift towards market capitalism. In this regard, some economists have proposed the convergence theory. This suggests that, over time, the differences between the economic systems of countries will gradually disappear as the performance superiority of one particular type of economy becomes obvious.

Convergence has been especially obvious in the former states of the Soviet Union (e.g. Russia and the Ukraine) and in East Germany, as well as in China and Hungary. However, there has also been a clear trend towards an even greater level of market capitalism in Australia, the United States, New Zealand and France. In these and other

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**FIGURE 1.12** North Korea has a planned socialist economy where the government not only owns most of the means of production and businesses, but it also plans what, how and for whom goods and services are produced.

Planned capitalism means that the economic system mainly involves decision-making through government economic planning, and there is much private ownership of business or the means of production.

**CHECK YOUR UNDERSTANDING**

1. What is a market capitalist economy? Give an example and describe its key features.
2. What is a market socialist economy? Give an example and describe its key features.
3. What is a planned capitalist economy? Give an example and describe its key features.
4. What is a planned socialist economy? Give an example and describe its key features.

Convergence theory suggests that, over time, the differences that exist between various economic systems may tend to disappear and the world’s economies will become more similar in their features.

**FIGURE 1.13** The famous GUM department store in Moscow is now fully privatised and offers high-fashion brand names familiar in the West at prices not many Russians can afford. Previously, this department store was owned by the state and was plagued by frequent shortages of consumer goods and long queues outside shops.
**Privatisation** is the selling of government businesses to private individuals.

**Free trade** is the removal of various forms of tariff (taxes that are added onto the price of imports to make them dearer and less attractive to consumers) and other forms of protection of local industry. Local firms then need to become more efficient to compete internationally.

**Deregulation** is the removal of government controls or restrictions on the operation of the economy.

A market capitalist economy is the type of economic system found in Australia and many other countries. Here, most decisions about the allocation or use of resources are made by consumers through the market or price system, while most businesses or the means of production are owned by private individuals.

**Values** are beliefs or attitudes about what individuals, society or governments consider to be good or bad, right or wrong, important or unimportant. They help to shape our economic system.

**Private enterprise** or capitalism dominates in an economic system when individuals own most businesses and the means of production, rather than having a dominance of state ownership.

**Consumer sovereignty** is where the particular types of goods and services produced reflect what consumers purchase, rather than this decision being made through government planning.

countries, change has been spurred on by the pressures of economic *globalisation* (i.e. businesses regarding the world as a single market, thereby overriding national boundaries). Evidence of changes in Australia’s economic system includes:

- the **privatisation** of many government businesses (e.g. Telstra, Qantas, the Commonwealth Bank)
- tariff cuts (reduced taxes on imports) and the extension of **free trade** (i.e. the removal of tariffs and other forms of government industry protection from overseas competition)
- significant government **deregulation** of many parts of the economy (i.e. removal of controls and obstacles to competition) including the financial, labour, grain, telecommunications and air transport markets.

As a consequence of change and convergence, we can now use figure 1.14 below to show how some of the world’s main economic systems line up today on a single continuum.

![Continuum showing the two main types of economic systems found in the world today](image)

**FIGURE 1.14** Continuum showing the two main types of economic systems found in the world today

While **market capitalism** is believed by many to be a superior system to **planned socialism**, neither system is perfect.

Try applied economic exercise 7, p. 45
Try a team debate, p. 47

1.7 Distinctive features of Australia’s market capitalist economic system

There are several key features that help to distinguish Australia’s **market capitalist economy** from other types of economic system.

**The beliefs and goals underpinning Australia’s market capitalist economy**

Our choice of economic system reflects the two sets of common **values** or beliefs found in Australian society:

- Key beliefs about individual rights and economic freedom
- Key beliefs or desirable economic goals pursued by the Australian government.

**Key beliefs about individual rights and economic freedom**

By far the most important set of beliefs underpinning Australia’s economic system concerns the rights of the individual and economic freedom:

- A **belief in free enterprise** (individuals have a choice of what is produced and how resources are used)
- A **belief in private enterprise** (most property and assets are owned by individuals rather than by the state)
- A **belief in self-interest** (people are mainly motivated by personal greed, gain and profit maximisation)
- A **belief in competition and efficiency** (sellers and buyers are each encouraged to outdo their rivals)
- A **belief in consumer sovereignty** (consumer sovereignty means that the consumer generally has considerable power to make decisions through markets, about the specific types and quantities of goods and services to be produced in the economy, rather than relying mostly on government direction or planning).

**Collective economic goals or beliefs pursued by the Australian government**

While Australia’s belief in personal economic freedom is seen as extremely important in our economy, because the market capitalist system based on this is not perfect, it is
also important for the federal government to set some broad collective economic goals or aims for the nation to pursue, so that living standards for all can ultimately improve. These government collective goals or beliefs include those listed below:

- **The goal of strong and sustainable rate of economic growth** (i.e. an average annual rise in Australia’s volume of goods and services produced measured by real GDP, perhaps averaging around 3.0–3.5 per cent a year)
- **The goal of full employment** (i.e. a low unemployment rate of around 4.5–5.0 per cent of the labour force where those seeking work cannot gain employment)
- **The goal of low inflation** (i.e. a low inflation rate or rise in general prices averaging around 2–3 per cent a year over the economic cycle)
- **The goal of external stability** (i.e. ‘paying our way’ as a nation in international financial transactions and living within our means)
- **The goal of an equitable distribution of income and wealth** (i.e. the avoidance of poverty, and a desire to ensure that everyone has fair access to essential goods and services such as basic food, shelter and clothing, so that living standards are reasonable)
- **The ultimate goal of improvements in general living standards** (i.e. a rise in people’s economic wellbeing reflecting increased incomes or consumption per person per year, and increased non-material wellbeing, possibly indicated by levels of personal happiness, freedom, leisure time, relationships, the environment).

**Australia’s capitalist system of ownership**

Australia relies mostly on private enterprise or ownership of businesses and the means of production. This system is called capitalism. However, there is also a limited degree of state or government ownership of enterprise.

**Private enterprise dominates**

In Australia, about 80 per cent of resources, assets and businesses (such as banks, farms, mines, factories and suppliers of services) are owned by private individuals (this is sometimes referred to as capitalism or private enterprise). Sole traders (one business owner), franchises (for example, McDonalds, Jim’s Mowing) and public companies (businesses listed on the stock exchange with many owners such as BHP-Billiton, Qantas and the Commonwealth Bank) help to make up the private sector of our economy, and account for most production. While the private sector is often motivated by self-interest and a desire to maximise profits, there are also other considerations affecting their decisions such as whether to consolidate or expand the size of their local or global market, lifting sales, implementing product innovation, restructuring business operations, social responsibility, and gaining personal satisfaction and independence.

**Limited amount government-owned enterprise**

Generally, privately owned enterprise only produces specific goods and services that are relatively profitable. However, although essential to society, there are some things, such as affordable transport and education, cheap health, welfare and low cost housing, which might not be very profitable for private enterprise to produce in sufficient quantity. Because of this, only governments can make these things available to all people, even the poor. In addition, there are other services, such as law and order and defence, which are best produced by the government. Given the need to produce these types of goods and services even if they are unprofitable, governments must own some of the nation’s property, enterprise and means of production.

Australian governments own around 20 per cent of assets (e.g. land, buildings and other community services including some railways, roads, schools, hospitals and housing). This public sector produces goods and services through government business enterprises and through government departments. Despite the importance of government enterprise, in recent times there has been a shift towards the user-pays principle for some services (e.g. tolls on some freeways, fees charged in some government schools) designed to increase efficiency and lower the cost to governments of running these activities. There has also been a shift towards the privatisation of some government business enterprises (i.e. selling them to private owners, often through a ‘share float’ as was the case with Telstra, the Commonwealth Bank and Qantas), again to lift efficiency. Additionally, some government businesses (e.g. Port of Melbourne) have been corporatised and are now expected to try to make a profit.
Australia’s market system — used for making most economic decisions

Australia’s economy, like that of other countries, involves institutions that make decisions about how our scarce resources are to be used (called ‘resource allocation’) and distributed (divided or shared) between individuals. Indeed, being a predominantly market economy, we rely mostly on the free operation of the price or market system to make the three important economic decisions:

1. **What and how much to produce?** This question relates to how we decide resource allocation or the type and quantity of each particular good or service to be produced.

2. **How to produce?** This question involves the decisions that need to be made about production methods and how goods and services should be produced.

3. **For whom to produce?** Once goods, services and incomes have been produced, this question relates to the way these should be divided or shared between individuals.

As we shall see, although the market system generally answers these three economic questions efficiently and allocates around 80 per cent of all resources, the market does have some failings. When this happens, there is a need for government intervention, regulation and planning. In addition, as shown in figure 1.17 below, there are also other institutions that influence the decision-making process including trade unions, big business, the media and other pressure groups.

We will now look in more detail at decision making and how the three key economic questions (i.e. the ‘what’, ‘how’ and ‘for whom’ to produce questions) are answered in Australia’s predominantly market economy.

**Decisions made by households through the market affect ‘what’ types of goods and services Australia produces**

When you and I purchase particular types of goods and services and reject others, we are all helping to decide how Australia’s scarce resources will be used and what types of things will be produced (i.e. the ‘what to produce’ question). In other words, it is consumer sovereignty rather than government planning that dominates decision making in our market economy. For instance, as a consumer, you are a decision maker when you buy an ice-cream, cinema ticket, iPhone, tee shirt or magazine. Your spending choices in different markets (e.g. food, clothing, telecommunication, and holiday markets) tell businesses exactly what types of things you want to see produced and what you do not want. Self-interest and a desire to maximise profits and incomes, mean that owners of resources and businesses generally follow the wishes of consumers.

In our economy, the market system (also called the price system) provides Australian consumers with a simple way of communicating their spending preferences or decisions to producers. This is because consumer spending or demand for a particular good or service affects the market price of that item. The price of things that are in demand usually rise because there is a shortage (i.e. they have been under-produced). Often a higher price results in higher profits, attracting even more resources and increased levels of production. By contrast, goods and services that are not popular with consumers go down in price (i.e. indicating they have been over-produced). In order to avoid losses in this situation, businesses respond by cutting production. In this way, rising or falling market prices signal to the owners of resources and to businesses, the changing decisions made by consumers. Generally all this happens without the need for governments to interfere in decision making.
So how do we answer the ‘what to produce’ question in Australia? Generally, we rely on consumer sovereignty and the free operation of the market system. Here, owners of resources and businesses closely follow the price signals coming from different markets that will help them produce the things that are most wanted and profitable.

Although the free operation of the price or market system is usually a very efficient decision-maker that helps to give most consumers what they want (consumer sovereignty), on occasions it makes bad decisions. This is called market failure. We will cover this in more detail on pp. 34–7. However, when market failure occurs, the government may apply various policies to limit consumer sovereignty and thereby affect how Australia’s resources are used and what things are produced:

- **Using government legislation or laws.** Government legislation affects what consumers and firms can and cannot purchase (e.g. laws about wearing bike helmets and purchasing and consumption of tobacco and alcohol).

- **Discouraging socially undesirable types of goods and services.** Governments may limit the production or consumption of some socially undesirable or dangerous goods and services purchased by ill-informed buyers (e.g. hard drugs, guns, pollution, chemicals, prostitution, pornography, alcohol and tobacco for those under age). Apart from using laws and bans, special taxes may be put on particular things to discourage consumption (e.g. taxes on alcohol and tobacco), along with negative advertising to repel buyers (e.g. cigarette packaging showing illness caused by smoking).

- **Encouraging socially desirable production.** Sometimes socially desirable and necessary types of goods and services are under-produced or are too expensive for many people to afford. In this situation, governments encourage the production or consumption of these goods and services (for example, public housing, hospitals, solar panels, transport, education, health insurance, the wearing of seat belts and bicycle helmets). Using money raised from taxes, the government itself can provide community services to users, below cost or free of direct charge. Sometimes subsidies or cash payments are made to encourage producers or consumers, or tax concessions may be offered as a financial incentive (for example, the tax rebate for those taking out private health insurance).

- **Promoting strong competition and efficiency.** Strong competition in markets generally helps to increase efficiency, lower prices, and improve the quality of goods and services produced. However, in monopoly and oligopoly markets, competition is weak and sometimes resources are used inefficiently. To correct this, the government can try to increase the level of competition by cutting tariffs (i.e. taxes added onto imports to protect local producers). In Australia, the government established the Australian Competition and Consumer Commission, which enforces the Competition and Consumer Act of 2010 designed to outlaw the anti-competitive activities of firms. This will be discussed further on p. 20.

In addition, figure 1.17 on p. 14, indicates that, apart from the operation of the market and government intervention, there are also other institutions that influence the type of goods and services produced (i.e. the ‘what’ question) including the media, minority political parties such as the Greens, and other pressure groups.

### Decisions made by businesses affect ‘how’ goods and services are produced

Usually, privately owned businesses in Australia only produce those types of goods and services that are most profitable and wanted by consumers. Unprofitable production is abandoned. Whether something is profitable or unprofitable to produce, is greatly affected by costs of production or the prices paid for various resources such as labour, raw materials and capital equipment. Hence, when firms or businesses are making decisions about how they will create a particular good or service, they typically select the lowest cost method of production, where the chosen combination of resources is cheapest.

In order to make this ‘how’ decision and select the cheapest resources, businesses again rely on the market or price system to provide the necessary information. For instance, a firm would typically use labour resources, where possible, to make its goods or services, rather than buying robots or machines to do the same work, if the cost or market price of labour was cheaper than the price paid for machines. This is simply because it would be more profitable. In Australia, wages (the price or cost of labour) are sometimes more costly than buying capital equipment (for example, machinery, equipment, robots) to do the same job. These considerations affect business decisions.
about ‘how’ to produce goods and services. Here, the market price or cost of resources depends on their relative scarcity and the availability of new technology. The market system will provide this necessary information to producers through price signals that come from particular markets (called resource or ‘factor markets’ as outlined on p. 00) where these resources are bought and sold.

In general, the Australian government does not make decisions about production methods or how things should be made. This is mostly left up to businesses. However, in special instances where there is market failure, the government may intervene. For instance, there are certain government environmental (through the Environment Protection Authority or EPA), design and safety restrictions that must be met, which affect the production method used by businesses in agriculture, mining, manufacturing and service industries. In addition to the operation of the market and governments, other institutions such as the media and trade unions, also affect the production methods used by firms.

**Decisions about ‘for whom’ to produce goods and services are made by Australia’s market system**

Generally, only those who earn income can purchase goods and services. The more income, the greater one’s purchasing power and ability to consume goods and services. In Australia, most income is earned by individuals who sell their resources (labour, natural resources and capital) and help to produce goods and services. Hence, individuals who sell more resources (especially those that are rare or relatively scarce) will earn higher incomes and enjoy better material living standards than those who sell few or no productive resources.

Again, it is the price or market system that helps to decide how much money someone will be paid for selling their resources, which then affects their ability to purchase goods and services. For instance, in answering the ‘for whom’ question, skilled workers (for example, engineers, lawyers, successful business people) who are relatively scarce, will gain higher incomes for their economic contribution, than the unskilled (for example assembly line and check-out staff) who are not so scarce. Here, the operation of Australia’s market system leads to inequality in income, purchasing power and living standards.

Because the operation of the price system leads to inequality in incomes and unequal access to goods and services, the Australian government uses various policies to help promote greater equity or fairness:

* **Progressive taxes.** Progressive income taxes are applied so that upper income earners pay tax at a higher marginal rate (up to 45 per cent) than lower income earners (who may pay as little as 0 per cent tax rate). This helps to narrow the income gap between the rich and poor.

* **Cash welfare benefits.** Cash welfare benefits are made available only to the neediest individuals (e.g. the unemployed, aged, families and the sick). These are designed to help lift the incomes of welfare recipients so they can purchase more goods and services than would otherwise be the case. Current benefits are around $250–$300 per week, depending on the circumstances.

* **Free or cheap public services.** Free or cheap public services (e.g. health, education and housing) are provided by the government and paid for using tax revenue. These are designed to help the poor to enjoy reasonable living standards.

* **Set the minimum wage.** Indirectly, the government, through Fair Work Australia, sets the annual legal minimum wage. Currently this is fixed at $622 per week or $16.37 per hour (2013–14) and helps to ensure that workers can better purchase necessities and enjoy reasonable living standards.
Apart from the operation of the market system and some influence from governments to reduce inequality in incomes, trade unions, the media, charitable organisations and opposition political parties sometimes also alter the way the ‘for whom’ question is answered.

Try applied economic exercise 8, p. 45

1.8 The nature and role of markets in Australia

We have already seen that there are not enough resources available to make all the things we would like. As a result, we need to choose or decide what types of goods and services will be produced, and allocate resources accordingly. For example, should scarce resources be used to make skateboards, mobile phones, wheat, surfing gear, education or meat pies? Apart from deciding what types of goods and services to produce, we also need to know how much (the quantity or volume) to produce, how to produce in the most efficient way, and how to distribute or share the goods, services and income that have been generated as a result of production.

We also know that in Australia’s economy, these three big economic decisions are made mostly by the market or price system (accounting for about 80 per cent), rather than relying on government planning, regulation or controls. Indeed, there are thousands of individual markets scattered across the country. For instance, there are markets for property, beauty products, labour, shares, music, cars, money capital, international currencies or foreign exchange, fish, aviation, telecommunications, education, vegetables and many more things. Given the importance of the market in most countries like Australia, a closer examination is justified.

What is a market?

Markets are institutions or organisations used to make economic decisions, where particular goods or services are bought and sold at prices that are negotiated between buyers (creating a demand) and sellers (creating a supply). Often this process involves some haggling or bargaining, since buyers want to purchase at low prices and sellers like to receive high prices for what they produce. A feature common to all markets is that there are buyers and sellers who together determine relative prices. However, some differences also exist. For example:

- There are open or free markets, as well as black markets (e.g. for illegal production like some drugs).
- Some markets can involve face-to-face contact between consumers and producers at a particular location (e.g. the Queen Victoria Market in Melbourne). Increasingly, however, due to the rapid growth in the internet and improvements in telecommunications, individuals participating in the market never see each other, may live in different countries and may even use different currencies.
- In some markets, the level of business competition or rivalry is strong (i.e. pure competition), while in others it is very weak (i.e. pure monopoly).

Market structure and other features of markets

Market structure (also called market power) is a term that is mainly used to describe the type of competition found in different markets. In Australia, some markets are characterised by pure competition. Here, there is strong rivalry between many sellers of a particular product. Individual producers are unable to set their own prices and have little or no market power (i.e. firms are ‘price takers’). However, at the other extreme, there are markets controlled by a single firm where there is a pure monopoly. These firms have much market power and are able to set or influence prices (i.e. firms are ‘price makers’). Between these extreme types of market structure, there is monopolistic competition (i.e. quite a few firms in an industry operating independently and using brand names to sell their product) and oligopolies (i.e. several large firms controlling an industry).

These four main types of market structure are shown in figure 1.19 (p. 18).
The nature of market structure and competition

Pure competition
- many firms in the industry
- competing strongly
- firms often small
- no advertising/brands
- ease of entry by new firms
- firm is a price taker
- e.g. grains, fruit and vegetables

Monopolistic competition
- quite a few firms in the industry
- brand names and product differentiation are important in selling items
- e.g. clothing manufacturers

Oligopoly
- several firms in the industry
- advertising and brand names are important
- e.g. supermarkets, oil companies and banks

Pure monopoly
- one firm in industry with weak competition
- firm often large
- brand name not vital
- difficulty of entry
- firm is a price maker
- e.g. Melbourne Water, Barwon Water (Geelong)

However, of these four types of market structure, many economists argue that pure competition often results in greater efficiency in resource allocation, lower prices, higher output and better living standards. Given that pure competition is often seen as a good thing, what are the preconditions that must be met for such markets to exist?

Preconditions for pure competition in a market

There are many preconditions that must be met before a purely competitive market can operate:

- Strong competition. There should be strong or pure competition between sellers and buyers in the market, as is found among fruit and vegetable producers. Also, on the producers’ side, no individual supplier should be in a position to actually fix prices and all producers must sell identical products without product differences. With perfect competition, firms are simply price takers in the market. Of course, in the real world, pure competition does not always exist because of powerful monopolies (i.e. one firm more or less controls an industry — for example, Australia Post or Melbourne Water), oligopolies (e.g. cardboard packaging, oil, banking, supermarkets, aviation and power companies) and monopolistic competition. In this situation, powerful firms may be price makers and able to fix their prices.

- Ease of entry. There is limited competition in monopoly or oligopoly markets because there are barriers to entry that restrict the setting up of new competing businesses. A common reason for this is that existing firms are larger and well established. New businesses would find start-up costs expensive. By contrast, it is generally cheaper and easier for new firms to gain entry into purely competitive markets.

- No product differentiation (homogenous product). Competition is usually more intense when producers are selling identical products not distinguished by brand names, advertising, product appearance or special packaging (i.e. the market is for a ‘homogeneous’ product). Hence, pure competition is more likely to exist in the wheat or wool markets, than in the market for designer clothing, petrol or cars.

- Absence of government controls and restrictions. The pure market or price system works best when there are no government regulations or restrictions affecting prices or limiting competition in an industry. To be competitive, markets must usually be ‘free’ or ‘deregulated’.

- Good knowledge of the market. Clearly, the price system can work properly only when both buyers and sellers are fully informed and knowledgeable about current trends in market prices (price signals). This is because price signals coming from the market are used to transmit the decisions of consumers to sellers who produce or supply those goods and services that are wanted. A lack of good information by consumers results in poor decisions being made.

- Firms try to maximise profits. It is assumed that business decisions are mainly motivated by self interest and a desire to maximise profits and incomes. Hence, in purely competitive markets, the owners of resources should shift their resources from one use to another, in order to reflect changing fortunes in different industries and changes in...
consumer demand. This requires that there be no major barriers to the entry or exit of firms into or out of an industry.

- **Consumers behave rationally.** In a purely competitive market, it is believed that buyers will behave in an economically rational way to promote their own self-interest, by being attracted by low prices for finished products and discouraged by high prices.

In Australia, it is obvious that most of our markets fail to fully satisfy all the preconditions required for pure competition to exist. However, perhaps the best examples of pure competition in Australia are the markets for fruit, vegetables and some rural products, and property. Some examples of where pure competition does not exist are to be found in the steel, chemical, banking and finance, petroleum, shipping and transport, groceries, cardboard packaging, glass, postal and water supply markets. Here, *monopolies* and *oligopolies* are more common. Even the general store in isolated small country towns or your own school canteen, can face little competition in their respective markets.

**The impacts of market structure and market power**

*Market structure* has many important impacts on Australians. For example, the level of market power or competition between business rivals can have the following effects:

- **Competition means higher efficiency.** Where competition among sellers or firms in a market is weak, there is often less need to be efficient in order to survive. By contrast, when there is strong rivalry, businesses are lean and are forced to cut costs. An exception to this general rule is when having a monopoly and control in a market allows for mass production. Here, some costs per unit of output produced can be lower and spread over higher production volumes. Bigger firms can achieve higher efficiency and gain economies of large scale production.

- **Competition results in lower prices and greater purchasing power of incomes.** Often prices are higher when there are monopolies and weak competition, since there is no rivalry. In addition, firms in an oligopoly-type market, are sometimes tempted to collude and use anti-competitive behaviour. This restricts competition, pushes up prices and rips off customers. Higher prices reduce the purchasing power of personal incomes and lower our living standards.

- **Competition means better quality goods and services.** Often when competition is weak, the quality of goods and services is reduced. This is because customers have no choice in products when they make purchases. Customer service is often poor, and consumer satisfaction low. However, an exception here could occur if a large monopoly producer used its size and financial strength to put money into product research and development (R&D) that would otherwise be beyond the reach of small firms. Customers may benefit in this case.

- **Competition means greater output of particular goods and services.** When competition is weak and especially when there is collusion among firms with market power, the total supply of a good or service is deliberately restricted as a way of pushing up prices in the market. This causes GDP to be lower and unemployment to be higher than if there was strong competition in the market.

- **Competition improves international competitiveness of local firms.** If weak competition leads to lower efficiency and higher prices, it is easy to see how this would weaken the international competitiveness of local firms selling products, both here and overseas. This would tend to lower Australia’s exports and, as a result, reduce the levels of national production and income.

- **Competition often lifts material wellbeing and living standards.** If weak competition leads to lower efficiency, higher prices, weaker international competitiveness, and reduced levels of national production and incomes, it is clear that it also leads to lower average material living standards.

**Strategies used by some firms to increase their market power**

Under capitalism, businesses are profit-seekers that adopt strategies to promote their own self-interest. It is hardly surprising that many firms would like to increase their market power so that they can become price-makers (i.e. set or determine their prices). Sometimes Australian companies become dominant because of historical reasons. Perhaps they were the first to be established and have since managed to retain their
market share. Others operated in industries where there was a natural monopoly because of the limited size of the local market. This market was simply not big enough to support many rival firms. Sometimes, too, the start-up costs were so great that other competitors were discouraged and new firms never got started. Occasionally, government legislation created monopolies or duopolies. For instance, in aviation until the late 1980s, Ansett Airlines and Australian Airlines together were guaranteed control of domestic aviation (the government’s two-airline policy did this), while Qantas was virtually given a monopoly on international air travel. The same situation was also the case in telecommunications, power and transport.

Firms have also used other methods to increase their market power such as multiple branding. Here one company sells two or more similar or identical products (for example, some washing detergents, toothpaste) under different brand names with the intention of leaving less space on the supermarket shelf for rival products and capturing consumers who like to try new lines.

**Illegal anti-competitive behaviour used by firms**

Although some firms use various strategies to increase their market power and exploit consumers through higher prices, many business practices are illegal under the *Competition and Consumer Act* of 2010, including the following:

- **Price fixing**: where firms collaborate to set prices
- **Price discrimination**: occurs when, for exactly the same good or service, businesses charge different prices to different customers
- **Exclusive dealing**: where companies refuse to supply their products or services to one or more firms
- **Collusive bidding**: when, in submitting a tender or quote for the completion of works or to supply goods or services, supposedly competing firms meet secretly beforehand to agree whose tender should be most attractive, cheapest and likely to win the contract
- **Price leadership**: where the dominant or leading firm sets prices that others follow
- **Predatory pricing**: where the dominant firms conduct a price war involving big cuts in prices with the intention of driving rival firms bankrupt, and then later enjoying the market without competition
- **Market zoning**: where competing firms in a region divide up the market into zones, areas or regions within which they agree not to compete with each other over prices
- **Interlocking directorships**: where a person acting as a member of the board of directors for one company, is also on the board as a director of a supposed rival company. If a company is found guilty of these offences, fines of up $500 000 for individuals or $10 000 000 for companies may be imposed for each occasion, along with possible jail sentences for company directors.

The *Competition and Consumer Act* of 2010 is enforced by the Australian Competition and Consumer Commission (ACCC). The ACCC also performs other functions. For example, it supervises company mergers and takeovers to ensure that they do not reduce market competition and that they are in the public interest. In addition, it monitors pricing (prices surveillance) and other arrangements (e.g. false advertising claims) in industries where competition is weak, including the utilities, aviation and airports, supermarkets, insurance, petrol, postal, rail, waterfront and communications. In the past few years to 2015, the ACCC has conducted high profile investigations into petrol, liquor, packaging, freight and supermarket pricing.

**Using a circular flow model of the Australian economy to show how markets operate**

Although there are thousands of different markets in Australia’s economy, these can be grouped into two main types.

1. **Markets for resources or factors of production.** *Factor markets* are where resources or factors of production (e.g. labour, money capital, natural resources including commodities, land and water) are bought (demanded) and sold (supplied). Resources are used by firms to make finished goods and services.
2. **Markets for finished or final goods and services.** *Final markets* are where finished goods and services (e.g. cars, magazines, designer clothes and health) are bought (demanded) and sold (supplied).

Economists often use diagrams or economic models to simplify how the Australian economy works. Figure 1.21 (p. 21) illustrates a very basic *two-sector circular flow model.*
Figure 1.21 has several important features:

- One of these two sectors or parts making up the model is called the **household sector**. This consists of around 23 million Australians who are both consumers of goods and services and the owners or sellers of resources.
- The second sector in figure 1.21 is called the **business sector**. This contains over 2.1 million large and small business enterprises (for example, sole traders, public companies), most of them privately owned.
- Notice that there are four main *flows* or transactions within our economy, connecting the household sector and the business sector. These flows link or pass through either *factor markets* or *final markets* and represent the way the household and business sectors interact through the marketplace. For example, notice that the household sector supplies or sells resources (i.e. natural, labour and capital resources) to the business sector through factor markets, and demands or buys finished goods and services (GDP) through final markets.
- You will also see that firms in the business sector buy or demand resources from the household sector through factor markets, and sell finished goods and services through final markets.
- In both types of market, the *prices* that are negotiated between buyers and sellers will reflect the level of demand relative to supply for each item. Prices should thus be seen as a barometer of relative scarcity. Clearly in Australia’s predominantly market economy, the levels of prices play a large role in decision making.

**How market prices tell firms and owners of resources what and how to produce**

As noted previously, *self interest* is an important feature of Australia’s economic system. Generally, privately owned firms want to *maximise profits* by producing only those goods and services that people are prepared to buy. Similarly, individuals owning resources (e.g. labour, natural resources, capital) want to use them to earn the highest income possible by moving them from one economic use to another (i.e., changing how resources are allocated).

To pursue these aims, we place great reliance on the *price or market system*. For instance, when the *market price* for a particular item rises or falls relative to another because of changes in its demand or supply, this affects the relative profits and incomes gained by producers in this area. When profits change in one area of production (for example, fruit growing) relative to levels in another (for example, the airline industry), owners of resources will gradually alter how these inputs are used or allocated. They may switch from one type of production (e.g. growing wool, selling overseas travel or making jeans) to another (e.g. producing wheat, promoting local tourism or manufacturing shirts).

Being more specific, let us look at a competitive market for ice-cream. Here, resource allocation and production levels will depend on business *profitability*. In turn, relative profits depend on two sets of *market prices*.

1. The *prices or costs of production paid* by ice-cream manufacturers for resources (i.e. production costs including labour, milk, capital that has been borrowed) in *factor markets*.
2. The *final price received* by ice-cream producers for their finished product when it is sold in the final market.
The **household sector** is the part of the economy made up of all individuals who consume goods and services, and sell resources to the business sector.

The **business sector** is that section of the economy made up of all firms and enterprises who produce goods and services for sale to the household sector.

**Profits** are a type of income and represent a reward to business owners who sell finished goods and services for a higher price than the costs involved in their production.

Let’s see how decisions made by producers take these two sets of prices into account. Assume that there was a relatively higher final price received by ice-cream producers or sellers, while production costs or prices paid for resources like milk or labour, were steady or falling. Under these circumstances, there should be relatively higher profitability in ice-cream production. Here the increased price paid for ice-cream could indicate a growing market shortage due to stronger demand by consumers. Rising prices also act as a signal to the owners of resources that there has been an underproduction of ice-cream. Whatever, the lure of better profits and higher incomes attracts extra resources into the industry and result in an increase in ice-cream production.

By contrast, assume there is a relative fall in the final price received by ice-cream manufacturers, while the level of production cost or prices paid by firms for resources remains the same or rises. This might indicate that there had been overproduction or too much supplied. Here, lower final prices would cut relative profits and so relatively fewer resources would be allocated to this area of production. Factors of production would then move from ice-cream production into another relatively more profitable industry. Again, the price or market system has done its job as a decision-maker designed to allocate our scarce resources. Figure 1.23 summarises how the price or market system operates to make decisions and to guide or allocate most resources between competing uses in Australia’s economy.

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**FIGURE 1.23** Summary of how the price or market system works to help make economic decisions and allocate resources between different productive uses

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**Step 1.** Because of scarcity, people cannot have all the goods and services they would like, forcing them to choose between competing wants. In a *market economy*, these choices or decisions are made through the operation of the *market system* (also called the *price system*), involving the forces **demand and supply**.

**Step 2.** Together, consumers or buyers (demand), and producers or sellers (supply) negotiate the equilibrium *market price* of each good or service. This establishes *relative prices* — the price of one good or service compared with that of another. When the conditions affecting buyers (ie, demand) and/or conditions affecting sellers (ie, supply) change in the market causing either a market glut or shortage, this causes the equilibrium market price to either rise or fall, creating *price signals*.

**Step 3.** Profit-seeking owners of natural, capital and labour resources watch these *price signals* and use them to help make decisions about how they will allocate resources and select the type and quantity of particular goods or services to produce, and how to go about producing and distributing these goods and services.

- **If there is a rise in final equilibrium market price** of a particular good or service, relative to that for making other items (assuming for simplicity that production costs or prices paid for resources do not change), the production of this item becomes relatively *more profitable*, thus attracting more resources, and leading to higher levels of production and incomes.

- **If there is a fall in the final equilibrium market price** of a particular good or service, relative to that for producing other items (assuming no change in production costs or prices paid for resources), the production of this item becomes relatively *less profitable*, thus repelling resources and leading to lower levels of production and incomes.

**Step 4.** There are many illustrative examples for the operation of the market or price system in Australia, guiding resources between competing uses. For example:

- **The drop in share and property prices** following the GFC and during 2008–09, repelled resources from this area due to lower profits, but the recent rising prices in 2013–14 have again attracted more resources to the market due to potentially higher profits.

- **The high $A** during 2010–11–12–13 repelled resources from *local manufacturing* as sales and profits fell, while the now lower $A in 2013–14 has helped to attract more resources into manufacturing due to better profitability.

- **High mineral commodity prices** during 2010–11–12–13 attracted more resources into *mining projects*, while relatively lower prices in 2013–14 have slowed the flow of resources into this area.

- **Higher lamb prices** in 2013–14 attracted more resources due to higher profits, while relatively lower lease prices at this time repelled resources due to relatively lower profits.
1.9 Looking at markets using demand–supply diagrams

Another way to look at how a competitive market makes decisions and allocates resources is through the use of demand–supply diagrams. Each diagram represents a market for a particular good (e.g. sunglasses) or a specific service (e.g. live entertainment). These diagrams or graphs are especially useful when analysing the impact of factors affecting buyers (i.e. demanders), sellers (i.e. suppliers) and market prices.

Let us see what these diagrams look like by first examining the way buyers and sellers commonly behave in the marketplace.

The behaviour of buyers or demanders (D)

Demand in a market occurs when buyers use their income to purchase a particular quantity of a good or service. Buyers are prepared to purchase a greater quantity of a particular good or service at a low price rather than at a high price. This is because few people have the necessary money to pay a high price. The behaviour of consumers in the market is summed up as the law of demand — that is, as prices rise, the quantity demanded (D) or purchased contracts, whereas if the price falls, the quantity demanded (D) expands. This is illustrated on the demand graph for cinema tickets shown in figure 1.25 below. This diagram has been drawn from table 1.1 below.

Notice that, for cinema tickets, the demand line, D–D, has a negative slope down and to the right on the graph. In addition, a move from point ‘A’ (2000 tickets) to point ‘B’ (4000 tickets) on this demand line is called an expansion in demand. It is caused by a fall in prices (from $4 to $2 per ticket).

However, a move from point ‘B’ (4000 tickets) to point ‘A’ (i.e. 2000 tickets) is called a contraction in demand and is caused by a rise in the price of tickets (from $2 to $4). This sort of consumer behaviour can be seen in any competitive market, no matter what type of goods or services is involved.

### TABLE 1.1 The demand (D) schedule for cinema tickets

<table>
<thead>
<tr>
<th>Price ($ per cinema ticket)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity demanded each year ('000)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

The behaviour of sellers or suppliers (S)

In contrast to buyers, sellers want to produce or supply at a high price rather than a low price. This is because it is more profitable to do so. Seller behaviour in the market is summarised as the law of supply — that is, the quantity supplied (S) or sold expands as the price rises and contracts as the price falls. This is illustrated on the supply graph for cinema tickets shown in figure 1.26 (p. 24). This has been drawn from table 1.2 (p. 24).

For cinema tickets, notice that the supply line (S) has a positive slope up and to the right on the graph. A move from point ‘A’ (2000 tickets) to point ‘B’ (4000 tickets) up along this supply line is called an expansion in supply and is caused by a rise in the price of tickets (from $2 to $4 per ticket).

Demand–supply diagrams are used to illustrate hypothetically how buyers (demanders) and sellers (suppliers) of a particular type of good or service help determine the market price at which the item sells.

Demand for a particular good or service represents the amount of a good or service that consumers are prepared to purchase at a given price.

The law of demand states that as the price of a particular good or service rises, the quantity demanded contracts, whereas if the price falls, the quantity demanded expands.

Supply of a particular good or service represents the amount of a good or service that sellers are prepared to produce or sell at a given price.

The law of supply states that as the price of a particular good or service rises, the quantity supplied expands, whereas if the price falls, the quantity supplied contracts.
However, a move from point ‘B’ (4000 tickets) to point ‘A’ (2000 tickets) is called a *contraction in supply* and is caused by a *fall* in the price of tickets (from $4 to $2 per ticket). This sort of behaviour is typical of the supply of all types of goods or services in competitive markets.

### The interaction between buyers and sellers in the market

As indicated in figure 1.27 below (which has been drawn from table 1.3), the conflicting behaviour of buyers and sellers results in a need for compromise.

Buyers want to buy at a low price and sellers want to supply at a high price. The solution to this problem is found at the *equilibrium price* \( (P_e, \text{ which is } $3) \). This is the market price where the quantity bought \( (D = 3000 \text{ tickets}) \) exactly equals the quantity sold \( (S = 3000 \text{ tickets}) \). This is called the equilibrium quantity \( (Q_e \text{ in this case is } 3000 \text{ tickets per year}) \). Here, the market is cleared of any surplus (glut) or shortage, and both buyers and sellers are happy. The free market always seeks to be in this equilibrium situation.

### What happens at prices above equilibrium?

At prices above the free equilibrium price (e.g. say $4 per ticket in figure 1.27), the market would *not* be in equilibrium. There would be a *market glut* or overproduction (by 2000 tickets) because supply \( (4000 \text{ tickets}) \) would exceed the demand \( (2000 \text{ tickets}) \). Sellers would be unhappy. If this occurred in a free market, prices would automatically fall back towards the equilibrium price \( ($3 per ticket) \) as, simultaneously, there was an *expansion* in demand and a *contraction* in supply until the two were equal.

### What happens at prices below equilibrium?

By contrast, if prices were below the free equilibrium price (say $2 per ticket in figure 1.27), there would be a *market shortage* (underproduction by 2000 tickets) because demand \( (4000 \text{ tickets}) \) would exceed supply \( (2000 \text{ tickets}) \). There would be queues of dissatisfied buyers. In a free market, the price of tickets would soon move upwards towards the equilibrium price \( ($3 per ticket) \). As this occurred, simultaneously there would be a *contraction* in demand and an *expansion* in supply until the two were equal.

### What causes market prices to change?

As we have seen, the market price for things (including cinema tickets) reflects the interaction of demand \( (D) \) and supply \( (S) \). However, it is obvious that prices seldom remain steady for long. This is because the prices for particular goods or services change in response to new *microeconomic conditions of demand* and new *microeconomic conditions of supply*. Such changes cause the whole demand or whole supply line to shift position. Let us now take a closer look.

---

**TABLE 1.2** The supply (S) schedule for cinema tickets

<table>
<thead>
<tr>
<th>Price ($) per cinema ticket</th>
<th>$1</th>
<th>$2</th>
<th>$3</th>
<th>$4</th>
<th>$5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity ('000) of cinema tickets supplied per year at each price</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**TABLE 1.3** The demand-supply schedule for cinema tickets

<table>
<thead>
<tr>
<th>Price ($) per cinema ticket</th>
<th>$1</th>
<th>$2</th>
<th>$3</th>
<th>$4</th>
<th>$5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity ('000) of cinema tickets demanded per year at each price</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Quantity ('000) of cinema tickets supplied per year at each price</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Price changes caused by new ‘conditions’ that shift the whole demand line

So far, we have assumed that consumers never change their behaviour. However, in the real world, buyers are continually reassessing their decisions. New microeconomic conditions of demand mean that buyers will now purchase an increased or decreased quantity than previously at any given price level. Typically, the conditions of demand include the following:

- increases or decreases in household income affect spending or demand
- increases or decreases in tax rates on particular types of goods or services
- some particular types of goods or services become more or less fashionable or wanted
- advertising of a particular good or service becomes more or less effective or successful
- the size and the age distribution of the population changes
- increases or decreases in the level of interest rates charged on credit that is lent to households and firms
- anticipated rises or falls in the future market price of a particular good or service
- increases or decreases in the price of a substitute good or service (e.g., butter versus margarine), or the price of a complimentary good or service (e.g., cars need petrol)
- the introduction or abolition of government laws or regulations affecting a good or service
- increases or decreases in the level of consumer confidence or business confidence affecting spending or purchases of particular goods or services
- changes in the seasons (e.g., summer versus winter) affects spending levels on particular goods and services.

When buyers are prepared to purchase more at a given price than previously because of stronger demand conditions, this is called an increase in demand. As shown in figure 1.28, which has been drawn from table 1.4, this development will shift the entire demand line for cinema tickets up and to the right of the original demand line (a shift on the graph from D1 to D2).

Assuming that supply remains unchanged at S1, the equilibrium price will rise from P1 to P2 (to around $3.50 per ticket). However, weaker conditions will decrease demand at a given price. This will shift the entire demand line down and to the left of the original demand line on the graph (from D1 to D0). Again, assuming supply conditions are steady at S1, the equilibrium price will be forced down from P1 to P0 (to around $2.50 per ticket) in order to restore an equilibrium between demand and supply. These same principles that affect the demand for cinema tickets at a given price would also alter buyer behaviour in any other competitive market.

### TABLE 1.4 Changing demand schedule for cinema tickets caused by new conditions of demand

<table>
<thead>
<tr>
<th>Price ($) per cinema ticket</th>
<th>$1</th>
<th>$2</th>
<th>$3</th>
<th>$4</th>
<th>$5</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1 — Original quantity ('000) of cinema tickets demanded per year at each price</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>D2 — New increased quantity ('000) of cinema tickets demanded per year at each price</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>D0 — New decreased quantity ('000) of cinema tickets demanded per year at each price</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>S1 — Original quantity ('000) of cinema tickets supplied per year at each price</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**Price changes caused by new conditions that shift the whole supply line**

Sellers are also continually reassessing their behaviour in the market as a result of new microeconomic conditions of supply. This causes them to increase or decrease the quantity they are prepared to supply at any given price level. Typically, the conditions of supply reflect:

- increases or decreases in the profitability of a particular area of production affected by changing production costs
- increases and decreases in wage costs per unit of output in an industry

Conditions of demand are the influences on the quantity of a particular good or service that buyers are prepared to purchase or demand at a given price. When demand conditions change, this shifts the whole demand line to the right (an increase in the quantity demanded at a given price) or left (a decrease in the quantity demanded at a given price), thereby affecting the equilibrium price.

### FIGURE 1.28 Increases and decreases in the demand line for cinema tickets alter price.
• increases and decreases in interest rates charged on loans made to businesses
• increases and decreases in company tax rates on the profits made by firms
• increases or decreases in the costs of imported and local inputs used in production of a good or service
• increases or decreases in the cost of utilities (for example, water, power, rates) used by firms in an industry
• increases or decreases in the availability and cost of technology used by an industry
• more or less favourable in climatic conditions (for example, droughts, floods, fires) affecting some types of production like farming, mining and tourism
• increases or decreases in bankruptcy levels among firms in a market
• increases or decreases in the level of government industry assistance (e.g. producer subsidies in a market).

By affecting the location of the whole supply line on the diagram, new conditions of supply also alter market prices. As shown in figure 1.30 (p. 27) (drawn from table 1.5), an increase in supply is caused by more favourable conditions for producers. These conditions shift the entire supply line down and to the right of the original supply line (i.e. from $S_1$ to $S_2$). Assuming that demand remains unchanged at $D_1$, the equilibrium price will fall from $P_1$ to $P_2$ (i.e. to around $2.50 per ticket) in order to restore equilibrium between the quantity supplied and demanded. By contrast, a decrease in supply is caused by less favourable supply conditions. These conditions shift the whole supply line up and to the left of the original line on the diagram (i.e. from $S_1$ to $S_0$). Again assuming that demand conditions remain unchanged at $D_1$, the equilibrium price will rise from $P_1$ to $P_0$ (i.e. to around $3.50 per ticket). These same principles affecting the supply of cinema tickets would also apply to sellers in other competitive markets.

<table>
<thead>
<tr>
<th>Price ($) per cinema ticket</th>
<th>$1</th>
<th>$2</th>
<th>$3</th>
<th>$4</th>
<th>$5</th>
</tr>
</thead>
<tbody>
<tr>
<td>$S_1$ — Original quantity ('000) of cinema tickets supplied per year at each price</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>$S_2$ — New increased quantity ('000) of cinema tickets supplied per year at each price</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>$S_3$ — New decreased quantity ('000) of cinema tickets supplied per year at each price</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>$D_1$ — Original quantity ('000) of cinema tickets demanded per year at each price</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

### Restating the role of relative market prices in signalling how resources should be allocated

It is worth finishing off this section about the operation of the price system by again making the connection between changing prices and their effect on decisions about Australia’s resource allocation (i.e. deciding ‘what’ type and quantity of goods and services are to be produced and ‘how’ these should be produced and ‘for whom’ goods and services are produced).

- Remember that changes in relative prices (either the cost or price of each input or factor of production, or the final price of a particular good or service) due to new microeconomic conditions of demand or new microeconomic conditions of supply, result in changes in relative profits.
- Since owners of resources try to maximise their incomes and profits, resources will eventually be shifted from one use (e.g. growing wool) to another (e.g. growing barley), reflecting changes in the level of relative profitability of one product against another.
Introduction: Australia, a market economic system

The market is a living, exciting and rapidly changing institution. It is of enormous importance to our daily lives. Basically, Australia has a market economy (with limited government intervention). The buyers or demanders of labour (D) are firms that are able and willing to work (members of the labour force). The buyers or demanders of labour (D) are firms wanting staff to fill their job positions.

Structure for the case study research about the labour market
- What are the general features of Australia’s labour market?
- Who are the demanders or buyers of labour and what affects their decisions?

The labour market is an institution where buyers and sellers of labour resources (i.e., physical power and mental talents of workers) negotiate a price that is called a wage.

Weblinks
Use the following weblinks in your eBookPLUS to undertake internet research about the labour market:
- Fair Work Australia
- Australian Council of Trade Unions (ACTU)
- Australian Bureau of Statistics
- Australian government’s Centrelink
- Biz Ed on the UK minimum wage issue
- Biz Ed on UK trade unions.

Try applied economic exercise 10, pp. 45-6

1.10 Background for case studies of markets

The market is a living, exciting and rapidly changing institution. It is of enormous importance to our daily lives. Basically, Australia has a market economy (with limited guidance in some areas through government intervention).

The current VCE Economics study design covering 2010–16 suggests that teachers should select one particular market for a case study that is relevant to student interests or the local economy. The intention is that this should be used to illustrate the workings of markets in general. With this in mind, a general background is provided about a number of markets that may be of interest, along with a suggested structure and internet research.

The labour market
Nature
Australia’s labour market is an institution where labour resources (the physical power and mental talents of different types of workers) are bought and sold at various prices or wages that reflect the relative scarcity of each type of worker. The sellers or suppliers of labour (S) come from the household sector and consist of those 13 million or so Australians aged over 15 years who are able and willing to work (members of the labour force). The buyers or demanders of labour (D) are firms wanting staff to fill their job positions.

Structure for the case study research about the labour market
- What are the general features of Australia’s labour market?
- Who are the demanders or buyers of labour and what affects their decisions?
– Who are the suppliers or sellers of labour and what affects their decisions?
– What is the type of market structure and level of competition in Australia’s labour market?
– What are the short- and long-term trends in the price of labour (wages)?
– What are the recent short- and long-term causes of price or wage trends in the labour market?
– What are the good and bad effects of changes in the labour prices or costs on economic decisions and resource allocation in Australia?

Rural commodity markets

Nature

Australian farmers sell their wheat, barley, wool, canola, beef, lamb, eggs, fruits and vegetables to wholesalers and retailers in rural commodity markets, both here and overseas. The price negotiated by sellers and buyers will reflect the relative scarcity of the rural commodity. Sometimes international selling is done by representative organisations (e.g. the Grains Corporation). Again, the market prices of commodities are determined by the interaction of buyers (D) and sellers (S).

Structure for the case study research into rural commodity markets

– What are the general features of agricultural or rural commodity markets?
– Who are the demanders, buyers or consumers of rural commodities and what affects their decisions?
– Who are the suppliers or sellers of rural commodities and what affects their decisions?
– What is the type of market structure and level of competition in Australia’s rural commodity markets?
– What are the short- and long-term trends in the price of rural commodities?
– What are the recent causes of short- and long-term price trends in rural commodity markets?

FIGURE 1.31 Crops such as wheat, corn, rice, barley, canola and rye are sold in rural commodity markets. Their price reflects conditions of demand and supply.
What are the good and bad effects of changes in the market prices of rural commodities on economic decisions and resource allocation in Australia? Figure 1.32 below shows changes in the market price of Australian wool.

**FIGURE 1.32** Changes in the price of Australian wool (cents per kilogram)


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**Try essay 1, p. 51**

### Non-rural commodity markets

**Nature**

Non-rural commodity markets involve the selling and buying of raw materials at a negotiated price that will reflect their relative scarcity. Firms producing or supplying commodities sell to other firms who need these materials for making finished goods to sell to customers or buyers. Important internationally traded raw materials include oil, gold, iron, zinc, nickel, timber, diamonds and natural gas. With great emphasis on mining, it is hardly surprising that the value of Australia’s exports is greatly affected by trends in commodity prices. Indeed, the A$ is often referred to as a commodity-driven currency.

Figure 1.33 (p. 30) shows the world price for crude oil (i.e. liquid petroleum that comes out of the ground before being refined and is commonly used to fuel cars and aeroplanes and the like). It is usually expressed in dollars per barrel.

**Structure for the case study research into non-rural commodity markets**

- What are the general features of non-rural commodity markets?
- Who are the demanders, buyers or consumers of non-rural commodities, and what affects their decisions?
- Who are the suppliers or sellers of non-rural commodities, and what affects their decisions?
- What is the type of market structure and level of competition in non-rural commodity markets?
- What are the short- and long-term trends in the price of non-rural commodities?
- What are the causes of short- and long-term price trends in non-rural commodity markets?
- What are the good and bad effects of changes in the market prices of non-rural commodity on economic decisions and resource allocation in Australia?

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**Weblinks**

Use the following weblinks in your eBookPLUS to check these sites on commodity markets and prices:

- OPEC about the oil market
- World Gold Council on demand, supply and price trends
- ABARES on commodity price and volume trends
- International Energy Agency on oil
- Real time retail fuel prices in Victoria; see Fuel Watch on the RACV site.
World oil prices move together due to arbitrage

Crude oil prices react to a variety of geopolitical and economic events

Try case study 2 — the oil market, pp. 48–9

Try the analysis of visual and statistical evidence, p. 47

The finance market

Nature

The finance market involves financial institutions (e.g. banks, credit unions, superannuation funds). Here, borrowers and lenders of credit negotiate the annual rate of interest or price that is paid. Interest rates largely reflect relative scarcity of credit and conditions of demand and supply. Households, businesses and governments often need to borrow (demand) money to finance their purchases of goods and services, including capital equipment. However, savers of money, including some households who do not spend all their current income, lend money and are rewarded by receiving interest.

Structure for the case study research into the finance market

- What are the general features of finance markets?
- Who are the demanders, buyers or borrowers of finance, and what affects their decisions?
- Who are the suppliers, sellers or lenders of finance, and what affects their decisions?
- What is the type of market structure and level of competition in Australia’s finance markets?
- What are the short- and long-term trends in the price or interest rate for finance?
- What are the recent short- and long-term causes of price or interest rate trends in finance markets?
- What are the good and bad effects of changes in interest rates on economic decisions and resource allocation in Australia?

The foreign exchange market

Nature

International financial transactions occur because of exports and imports of goods and services, and investment flows between countries. During this process, payments between countries must be made in the currency appropriate for each nation. For instance, Australian exporters want to be paid in our currency, not yen or pounds sterling. For this to occur, international currencies (e.g. the A$, US$, pound sterling, Euro, Rupee and Yen) need to be swapped in the FOREX or foreign exchange market. The
exchange rate is simply the price of one currency in terms of units of another (e.g. A$1.00 may be worth US$0.94). The price (in this case the exchange rate) is determined by the number of buyers versus the number of sellers, as occurs in all competitive markets. The exchange rate changes with the level of relative scarcity of each currency. In Australia’s case, sellers of our currency are often local households or firms wanting to convert our dollar into some other currency. Sometimes too, speculators want to sell off the currency, especially if they feel it is going to fall. However, buyers of our currency are mostly foreigners. As figure 1.34 (plotted each 5 years) shows, the price or value of the A$ has fallen considerably over the last one hundred or so years, despite a rise in the last few years.

Structure for the case study research into the foreign exchange market
- What are the general features of the foreign exchange market for the A$?
- Who are the demanders or buyers of foreign exchange and the A$, and what affects their decisions?
- Who are the suppliers or sellers of foreign exchange and the A$, and what affects their decisions?
- What is the type of market structure and level of competition in the foreign exchange market?
- What are the short- and long-term trends in the price or exchange rate for the A$?
- What are the recent short- and long-term causes of price or exchange rate trends for the A$ in the foreign exchange market?
- What are the good and bad effects of changes in the market prices or exchange rate for the A$ on economic decisions and resource allocation in Australia?

The property/housing market
Nature
Residential properties and businesses in Australia are regularly bought and sold in the property market, in addition to the rental property market. Often these markets operate at the local level, but increasingly in capital cities this involves national and international customers. The late 1990s and 2000s saw a remarkable growth in rental costs, housing and land prices, fuelled by a buying frenzy of investors, speculators and homeowners. Population growth (immigration and natural increase) also contributed to the trends. However, after a peak in late 2007, prices fell sharply in 2008 and early 2009, following the onset of global recession and the financial crisis, and despite some recovery in 2010, prices again eased in 2011–12 but rose in 2012–13–14. Figure 1.35 shows these trends in median property prices across five Australian capital cities. Again, price changes reflect the level of relative scarcity determined by conditions of demand and supply.

FIGURE 1.34 Around a century of decline in the exchange rate for the A$ against the US$
Sources: Data derived from Year Book, Australia (various), RBA Occasional Paper 8, RBA Statistics and other sources.

Weblinks
Use the following weblinks in your eBookPLUS to undertake further research about the foreign exchange market:
- Reserve Bank of Australia for interest rates and exchange rates
- National Australia Bank on exchange rates
- Westpac bank on exchange rates
- ANZ bank on exchange rates
- Trends in exchange rates (tables and graphs) and interactive exchange rate calculator site.

The property market is an institution where buyers and sellers of land, houses, units and industrial sites (property) negotiate a price.
Structure for the case study research into property markets

- What are the general features of local and/or national property markets?
- Who are the demanders, buyers, consumers or renters of property, and what affects their decisions?
- Who are the suppliers or sellers of property, and what affects their decisions?
- What is the type of market structure and level of competition in local and or national property markets in Australia?
- What are the short- and long-term trends in the price of property (as renters or as buyers)?
- What are the recent short- and long-term causes of price (and/or rent) trends in property markets?
- What are the good and bad effects of changes in the market prices of property (and/or rents) on economic decisions and resource allocation in Australia?

Sport and leisure markets

Nature

These days, sport and leisure are bought and sold in a multi-billion dollar market. This is because Australians are often passionate about sports such as AFL football, soccer, grand prix car racing, cricket, swimming, sailing, tennis, hockey, rowing, netball, basketball and horse racing. Furthermore, there is an active use of leisure time through lifestyle activities including the cinema, gym, travel, pop concerts and entertainment. The pursuit and popularity of these leisure activities has led to a growing demand by customers with rising incomes, often making the production or supply of these services profitable. Indeed, many of our talented and well-known sporting and entertainment heroes command very high pay.

Structure for the case study research into leisure markets

- What are the general features of local and/or national sport and leisure markets?
- Who are the demanders, buyers or consumers of sport and leisure services, and what affects their decisions?
- Who are the suppliers or sellers of sport and leisure services, and what affects their decisions?
- What is the type of market structure and level of competition in local and/or national leisure markets in Australia?
- What are the short- and long-term trends in the sport and leisure prices?
- What are the recent short- and long-term causes of price trends in sport and leisure markets?
- What are the good and bad effects of changes in the market prices of sport and leisure services on economic decisions and resource allocation in Australia?

Weblinks

Use the following weblinks in your eBookPLUS to find more information about the property market:
- The Age newspaper property guide on house prices
- Real Estate Institute of Victoria (REIV) on property values, property database.

Use the following weblinks in your eBookPLUS to find more information on the football market:
- Australian Football League
- Biz Ed on UK football.
The stock market

Nature

The stock market allows listed shares in companies to be bought and sold at a price that reflects relative scarcity and the ever-changing conditions of demand and supply for each stock. Often speculative buyers try to purchase shares at a low price and then resell them at a higher price later on in order to make a profit or capital gain. Sometimes shares are simply seen as an income-earning investment where shareholders receive dividends or a proportion of the profits made by the company. In the first instance, when companies are floated or listed, they issue or sell shares to raise finance for their business expansion. Later, however, these shares change hands, depending on whether owners want to hang onto them or sell them. On occasions, volatile changes in the conditions of demand and supply by investors can cause share prices to suddenly change.

As shown in figure 1.37 below, after the rise between 2003 and late 2007 in Australion (i.e. ASX-200 measuring the price of the top 200 listed companies) and World Share Prices, average share prices here and overseas took a spectacular dive in 2008 and early 2009, following the global financial crisis and recession. This inflicted much pain on investors, especially retirees. Despite a recovery in share prices, there was again uncertainty between 2010 and 2014, reflecting overseas and local concerns.

![Stock Market Graph](image)

**FIGURE 1.36** Prices of shares in the stock market are nowadays displayed electronically and can change unexpectedly up or downwards, affecting the decisions of investors.

**Weblinks**

Use the following weblinks in your eBookPLUS to extend your knowledge of the stock market:
- Australian Securities Exchange (ASX)
- ASX Schools Sharemarket Game.

**Structure for the case study research into the stock market**

- What are the general features of the stock market or Australian Securities Exchange (ASX)?
- Who are the demanders or buyers of company stock, shares and equities listed on the ASX, and what affects their decisions (either take one particular company or cover shares in general)?
1.11 Correcting market failure through government intervention in Australia’s market economy

The Australian government deliberately regulates various aspects of our market economy so as to improve its performance. Intervention is sometimes needed because of market failure. Here, the market fails to use or allocate resources efficiently in ways that help to maximise society’s general well being and Australia’s living standards. There are three main areas of the economy where government intervention modifies the free operation of the market.

The government regulates the level of economic activity in our market economy

The level of economic activity involves the overall pace or speed at which national production is growing. This also affects inflation and unemployment levels. Unfortunately, unregulated market economies are usually very unstable, and sometimes experience violent ups and downs in national production, involving booms (periods where there is rapid inflation or generally rising prices) and recessions (periods where production falls over at least two consecutive quarters of a year (a six-month period)) or even depressions (severe recessions) in the level of economic activity.

To help reduce the severity of cyclical instability in GDP, the Australian Government uses various policies. These are applied in such a way as to counteract the ups (by using policies to slow the economy) and downs (by using policies to speed up the economy) in the speed of production or economic activity. These may include, for example, changes in

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Check Your Understanding

1. Provide a brief definition of any two of the following markets:
   a) Commodity market
   b) Labour market
   c) Foreign exchange market
   d) Stock market.

2. Identify a particular example of a market and then explain the following features of that market:
   a) The type of market structure
   b) Who are the buyers and what conditions affect demand?
   c) Who are the sellers and what conditions affect supply?
   d) How has the level of market prices changed during the last five years?
   e) What are the effects of the change in market price on the economic decisions that are made by people and businesses in that market?

---

Market failure occurs when the free operation of the market system makes decisions that reduce the satisfaction of society’s wants, thereby lowering general living standards and wellbeing.

The level of economic activity involves the overall pace or speed at which national production is growing. The level of economic activity is unstable and changes in a wave-like or cyclical manner.

A boom is an undesirable economic situation in an economy where there is rapid inflation or generally rising prices.

A recession is an undesirable economic situation where national production falls over at least two consecutive quarters of a year (a six-month period).

---

FIGURE 1.38: Market economies are often unstable and experience cyclical ups and downs, booms and recessions.
interest rates, taxes and government spending. Essentially, when people are spending too much causing an inflationary boom, the government lifts interest rates, collects more in tax and cuts its spending to slow the economy down. In reverse, when there is too little spending and recession develops, it might cut interest rates and taxes, and increase government spending.

**The government re-allocates some resources in our market economy**

In general, the market is a very efficient allocator or user of resources. This is because owners of resources try to maximise their profits and incomes, by producing only those particular goods and services that are most profitable. However, there are three situations where this profit-driven free market approach fails to use resources efficiently.

- **Overproduction of socially undesirable but profitable items.** In the quest for profits, socially undesirable goods and services are often overproduced by the market system (e.g. illegal drugs, prostitution, gambling, guns and pollution), even though these things have a negative effect on families and communities. Often too, consumers are ignorant or ill-informed so they cannot make good decisions or choices.

- **Underproduction of socially desirable items at an affordable price.** Socially desirable goods and services needed by all of us (often called ‘public’ goods and services) are underproduced by the private sector, because these things are expensive to produce and cannot be sold profitably at a low and affordable price (e.g. quality health care, education, housing and transport) so that we can all access them.

- **Weak competition in markets results in inefficiency.** Inefficiency often occurs when there is weak competition in the market. This outcome is common in markets where there is a monopoly (one seller controlling the market) or oligopoly (several sellers in the market). Here, resources are sometimes wasted because of the absence of strong business rivalry or the existence of price collusion between sellers, designed to overcharge consumers. The Australian Government tries to correct some of these weaknesses of the free market approach to resource allocation by using various policies including those listed below.

- **Microeconomic policy.** Microeconomic policy reforms have been widely applied to cut costs and improve efficiency in our use of scarce resources. Microeconomic reform policies include cutting tax rates (e.g. lower tax rates on companies, personal incomes and capital gains), lowering tariffs on imports, selling off government businesses (privatisation, e.g. the Commonwealth Bank, Qantas, part of Telstra), and promoting competition through market deregulation (e.g. aviation, telecommunications, the labour market). Greater efficiency helps to grow the economy’s GDP, slows production costs and reduces inflation, makes us more internationally competitive and helps to cut Australia’s international trade deficit, and allows society to enjoy higher personal incomes and living standards.

- **Government production of some services.** The government itself becomes a producer and provider of some socially desirable services. For example, the public sector is used to provide quality community services cheaply or free of charge. Good examples include public education, health and welfare housing. Access to these is possible only because the government provides the necessary money and resources through its annual budget.

- **Taxes placed on goods and services.** The government applies discriminatory tax rates on particular goods or services, designed to make socially undesirable or harmful types of goods and services less affordable. For instance, there are heavy excise taxes placed on cigarettes, alcohol, petrol, along with a carbon tax on CO2 pollution. A goods and services tax (GST) is also added to the price of most (but not all) items sold.

- **Government subsidies.** A subsidy is usually a cash payment made by the government to encourage those producing and/or consuming particular types of goods and services.

**FIGURE 1.39** The impact of a government subsidy on the allocation of resources and production levels in an industry.

A subsidy is a cash payment made by the government to encourage those producing and/or consuming particular types of goods and services.

Socially undesirable goods and services are an example of market failure. Sometimes these things are overproduced due to their profitability, but their production or consumption damages the general wellbeing of society. Socially desirable goods and services are sometimes known as public goods since they are seen as beneficial for society. Unfortunately, they are costly or expensive to produce and cannot be sold profitably at a low price where all can afford them, so the government is often forced to provide them.

Weak competition causes market failure. It exists in markets where there are no or few sellers of a good or service, and where the market power of a particular firm is great.

Microeconomic policy reforms are cost-cutting, efficiency-promoting policy strategies of the government.
Sometimes, too, subsidies are paid to producers who lift production of goods and services considered to be beneficial. For example, using the demand–supply diagram shown in figure 1.39, we can illustrate the economic impact of a government cash subsidy given to struggling car producers or sugar growers. Here, there would be an extra inducement to lift production. Put another way, supply would increase from S1 to S2. This would cause the equilibrium price of say sugar to fall from P1 to P2. It would also mean that buyers would pay a more attractive lower price P2 while sellers would receive a more profitable higher price P3. The difference between the two prices, P2 and P3, represents the value of the government’s subsidy. As a result of the policy, more resources would be allocated into this type of production, as seen by the rise from Q1 to Q2.

- **Legislation.** Legislation has been passed in parliament designed to alter the allocation of resources that would otherwise occur in a free market. You would be familiar with examples of laws that force consumers to buy some types of desirable goods (e.g., the wearing of bike helmets and using only hoses with trigger nozzles during water restrictions) and services (e.g., compulsory school attendance until 15 years old), altering resource allocation. Then there are also laws that prohibit some individuals from buying undesirable products (e.g., under-age purchase of alcohol or tobacco, gun ownership, anti-pollution standards, illegal drugs). In addition, laws prevent or discourage firms from certain economic activities, including pollution and activities involving anti-competitive behaviour.

### The government re-distributes incomes more evenly in our market economy

In some countries like Australia, there are huge differences in personal incomes between the rich and the poor. Here, some people cannot afford to buy even basic goods and services, and so they are forced to live in poverty. One cause of this problem is that the free operation of the market system results in growing inequality in personal incomes and wealth. For example, the labour market pays high incomes to some and low wages to other individuals who work. This is because each occupation faces different conditions of demand and conditions of supply that affect how scarce that occupation is.

Those scarce occupations where there is a limited supply and strong demand for labour, will be paid highly (e.g., individuals with unique talents, skills, training, experience and ambition). However, others are poorly paid because they face conditions where there is a greater supply of and a weaker demand for labour. In addition, inheritance of wealth (e.g., assets including property, savings and shares handed down from one generation to the next) received by some individuals, also contributes to great inequality in personal income and wealth. As a result, the rich become richer and the poor poorer.

These days, most people see great income inequality as a bad thing or weakness of our market system. It causes social classes and unrest, it adds to unemployment and it contributes to poverty and depressed living standards for low-income earners. As a result, the following government policies are used to reduce its severity.

- **Progressive income tax.** Progressive income tax (e.g., pay-as-you-go income tax or PAYG) helps to reduce the large gap in income between the rich and poor. It involves the higher income earners paying a larger proportion (percentage) of their income in tax, than that paid by low income earners. For instance, very low income earners (below $18 200 July 2012) pay no tax, but high income earners (over $180 000, July 2012) pay a marginal rate of 45 per cent of each extra dollar in tax. Furthermore, the monies collected by the government in this way can be used to pay for welfare benefits to the most needy and to provide necessary government services (e.g., health care, education) for the poor.

- **Welfare benefits.** The government pays cash welfare benefits to the neediest (e.g., to families, the unemployed, the aged and the sick) with relatively low incomes. An assets test (based on the value of wealth owned by an individual) and a means test (based on a person’s income level) are applied to exclude those who are fairly well off financially. Money received from benefits (perhaps $250–$300 a week) can then be used to purchase essential goods and services to help maintain basic living standards.

- **Provision of community services.** The government allocates money to provide public education, health, housing and other community services, either free of charge or at a means-tested rate.
below cost. This represents a big saving for users of services. It ensures that lower income families can enjoy better living standards than they would otherwise.

- **Introduction of compulsory superannuation.** A compulsory national superannuation scheme for all employees through a levy (in 2014 at 9.5 per cent of pay to rise gradually to 12 per cent by 2019 starting in July 2013) on employers was first introduced in 1992. This represents a big saving for users of services. It ensures that lower income families can enjoy better living standards than they would otherwise.

- **Regulation of wages.** Although wages in Australia’s labour market are largely set by the interaction between the forces of demand and supply, the government, through an institution called *Fair Work Australia*, sets a legal *minimum wage*. This is designed to protect the living standards of the low paid, and help prevent the exploitation of workers by ruthless bosses who might otherwise underpay staff, if the labour market was fully deregulated. In 2013–14, this wage was around $622-20 per week for a full-time adult worker.

One criticism of many of these policies to redistribute income more evenly is that they also have some negative effects. For example, progressive taxes and welfare benefits may discourage personal effort and reduce efficiency in resource allocation. Additionally, the provision of government services through the public sector can result in inefficiency, low quality and poor customer satisfaction. Finally, in the case of fixing minimum wages in the labour market above their free equilibrium level, some believe that this actually causes a surplus of labour or unemployment. This is because wages are not free to fall back to their equilibrium in order to restore equality between the quantity of labour demanded and supplied. In addition, the minimum wage may increase labour costs, make firms less profitable, cause business closures and make local firms less competitive against products from low-wage countries.

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**Superannuation** is money contributed into a fund while working that hopefully grows over time and becomes available for use when a person retires and ceases employment.

**Fair Work Australia** is a one-stop government institution responsible for regularly reviewing and setting the minimum wage and settling other industrial relations matters.

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**Check Your Understanding**

1. Explain what is meant by the term *market failure*.
2. Explain why or how the market fails in each of the following situations:
   - a. The production of socially desirable public goods and services
   - b. The production of socially undesirable goods and services
   - c. Weak competition involving monopolies and oligopolies
   - d. Economic instability
   - e. Inequality in income distribution.
3. Identify and explain two policies the government might use to help reduce market failure in each of the following cases:
   - a. The underproduction of socially desirable public goods and services
   - b. The overproduction of socially undesirable goods and services
   - c. Inefficiency due to weak competition involving monopolies and oligopolies
   - d. Economic instability involving booms and recessions
   - e. Great inequality in income distribution.
In order to satisfactorily complete VCE Economics Unit 1, part 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 1**. 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 within a limited time frame. With this in mind, teachers may select from an appropriate range of tasks. A range of these activities has been provided in the following pages.

**Multiple-choice test questions**

Using the multiple-choice answer grid, select the letter (A, B, C, 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>
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**Question 1**

Concerning microeconomics and macroeconomics as areas of study, which statement is generally **false**?

A. Microeconomics often studies how particular firms, specific industries and individual markets operate.

B. Macroeconomics may study the operation of the circular flow model of the Australian economy and the role played by the level of aggregate demand.

C. The problem of Australia’s car industry being uncompetitive against foreign car makers mostly involves macroeconomic issues.

D. The issue of waterfront or aviation reforms are good examples of microeconomic studies.

**Question 2**

In economics, the problems of scarcity and choice arise because:

A. Wants are always limited.

B. Resources are limited relative to wants, which are virtually unlimited.

C. Resources and wants are unlimited.

D. We do not have enough money.

**Question 3**

If the country represented in table 1.6 were located on its production possibility frontier, the opportunity cost of increasing machine production from $0 million per year to $30 million per year would be:

A. $50 million of food production.

B. $10 million of machine production.

C. $60 million of food production.

D. None of the above.

**Table 1.6** Production possibility table for a country which can produce food and/or machines with only the resources at its disposal

<table>
<thead>
<tr>
<th>Area of production</th>
<th>Maximum production combinations or possibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Annual production of food ($ millions)</td>
<td>0</td>
</tr>
<tr>
<td>Annual production of machines ($ millions)</td>
<td>40</td>
</tr>
</tbody>
</table>

**Question 4**

Concerning the production possibility data in table 1.6, which statement is **true**?

A. Production of both products could be increased simultaneously if the nation was actually located on its production possibility frontier.

B. The opportunity cost of producing food decreases as more machines are produced.

C. The opportunity cost of producing food decreases as more food is produced.

D. The country appears to be a more efficient producer of food rather than machines and should logically use its resources to produce food.

**Question 5**

Which of the following is **not** generally regarded by economists as a physical capital resource?

A. The artificial snow-making dam and extra snow-making capacity constructed at Mt Hotham between 2006 and 2010.

B. Power lines and generators owned by Powercor.

C. Manufactured items used by firms to help produce other goods and services.

D. A household washing machine.
**Question 6**
Which statement about economic systems is usually incorrect?
A. Market capitalism involves the price system and government ownership of enterprise.
B. Market socialism involves allocating resources by relying on price signals and state ownership of businesses.
C. Planned socialism usually involves government five-year plans and government-owned businesses.
D. Some countries are privatising government-owned firms.

**Question 7**
In market economies, individual consumers generally indicate to producers the type of goods and services they want produced by:
A. the sort of goods and services they purchase.
B. the sort of goods and services they fail to buy.
C. changes in prices (i.e., price signals) in various markets which reflect shortages and gluts in production.
D. all of the above.

**Question 8**
Which statement about the various types of business firms in Australia is true?
A. A sole trader usually involves expensive start-up costs relative to other types of firm.
B. A partnership involves more than five owners and has unlimited liability.
C. A public company usually has the advantage of access to more capital for expanding the business.
D. Public companies have the disadvantage of unlimited liability.

**Question 9**
Concerning different types of market structure, which statement is false?
A. Pure monopoly exists when there is a single producer or seller in a market.
B. Oligopolies exist when there are many large firms competing strongly in the market.
C. Pure competition exists when there are many rival firms, each selling an identical product.
D. Monopolistic competition exists when there are quite a few competing producers in a market, each selling a product differentiated by brand names.

**Question 10**
In Australia's economy, the market as an institution allocates around what percentage of resources?
A. 80 per cent
B. 50 per cent
C. 20 per cent
D. 10 per cent

**Question 11**
The market or price system in Australia helps to decide or answer which of the following?
A. The particular types of goods or services to be produced
B. The volume of each type of good or service to be produced
C. How production and income will be distributed or shared between individuals
D. All of the above

**Question 12**
Which of the following is not a precondition of a purely competitive market?
A. Many buyers and sellers competing
B. The absence of product differentiation
C. The use of regulations and controls by the government
D. Profit maximisation and a good knowledge by buyers and sellers of changing market conditions

**Question 13**
Generally, firms try to maximise their profits. Areas of production that are most profitable are best indicated by looking at:
A. the final selling price of the good or service
B. the costs or prices paid for the resources used in production of the good or service
C. the difference between the final selling price and the prices paid for resources used in the production of the good or service
D. national sales levels for the good or service.

**Question 14**
Which of the following best describes the market for factors of production?
A. Where households supply labour, capital and natural resources
B. Where firms purchase or demand resources
C. Where the prices paid for resources used in production are negotiated
D. All of the above

**Question 15**
For a competitive market, which of the following is most correct?
A. Rising prices in a market usually indicate a growing shortage or underproduction.
B. Falling prices indicate that demand exceeds supply.
C. Rising prices indicate that supply exceeds demand.
D. Rising prices indicate that the conditions of demand and supply are steady.

**Question 16**
In a free or competitive market, rising prices for DVDs reflect:
A. a glut or surplus in the DVD market.
B. a shortage in the DVD market caused by a rise in the number of buyers relative to the number of sellers.
C. an increase in supply because of new cheaper technology that can be used in making DVDs.
D. too many resources allocated to the production of DVDs and overproduction.

**Question 17**
Underproduction and a market shortage of bubble gum would be indicated by:
A. falling bubble gum prices.
B. both rising and falling bubble gum prices caused by the erratic behaviour of bubble gum markets and buyers.
C. rising stocks and falling sales of bubble gum.
D. rising market prices for bubble gum.

**Question 18**
According to the law of demand, a contraction along the demand line for Coke from point A to point B, as illustrated below, is most likely to be caused by:
A. a rise in the price of Coke.
B. a decrease in the cost of producing Coke, such as cheaper soft drink cans.
C. a disappointing advertising campaign using country singer John Williamson.
D. an increase in the supply of Coke.

**Question 19**
The law of supply states that the quantity of a good or service supplied by producers varies:
A. directly with a rise in price.
B. inversely with a rise in price.
C proportionally with a rise in price.
D in response to changes in the conditions of demand.

**Question 20**
Which of the following best explains the shift in supply from $S_1$ to $S_2$ as shown in the diagram below?

**FIGURE 1.41**

A Falling wages for workers in yoyo factories
B Higher costs of materials (e.g. string, plastic) used to make yoyos
C A fall in the demand for yoyos
D Rising profits among yoyo producers

**Question 21**
In 2013, the banana crop in parts of the world was devastated by poor growing conditions (e.g. cyclones, cold weather, floods) in the tropics and the effects of disease that killed plants. Assuming a competitive market for bananas similar to that shown in the demand-supply diagram below, which of the following descriptions best sums up the effects of these events?

**FIGURE 1.42**

A The equilibrium price of bananas would fall and the equilibrium quantity would rise.
B The equilibrium price of bananas would rise and the equilibrium quantity would fall.
C The demand for bananas would fall.
D The supply of bananas would rise.

**Question 22**
Assume that the market for air tickets was a competitive one. In terms of market theory, which of the following is unlikely to reduce the price of Australian airfares to New Zealand?
A A lower cost of planes purchased by airline carriers
B Greater competition among airlines to operate on that route
C A rapid rise in Australian disposable incomes
D Lower aircraft landing fees in Auckland Airport

**Question 23**
Between 2002 and 2008 and again between 2009–10, general interest rates in the Australian capital market rose. In terms of market theory, which of the following does not provide a logical explanation of the rise in market interest rates?
A A rise in the demand for credit by households borrowing credit
B Decreased savings by households held in various financial institutions (e.g. banks)
C The failure of the government’s policies to encourage superannuation and increase domestic savings levels by households
D A fall in the level of government borrowing or demand for credit due to the federal government’s budget surplus where there was no need for the government to borrow or demand credit

**Question 24**
Which of the following would not explain the recent fall in world wool prices paid to Australian growers?
A A fall in local production costs for wool growers
B A fall in the demand for wool, both in Australia and overseas
C A rise in the world’s supply of wool
D The replacement in fashion of the famous ultra slim mini-skirt that uses very little wool, with longer maxi-skirts that use more wool in manufacture

**Question 25**
In a free or purely competitive market for sunglasses, equilibrium exists when:
A there is no shortage or surplus.
B the quantity supplied equals the quantity demanded.
C there is no tendency for the market price to rise or fall.
D all of the above conditions are achieved.

**Question 26**
In 2012–13, there was a world record crop of sugar. Prices tumbled dramatically in this competitive market.

**FIGURE 1.43**

Which change on the following demand-supply diagram best illustrates this economic development in the sugar market?
A The move from market equilibrium ‘K’ to ‘L’
B The move from market equilibrium ‘L’ to ‘M’
C The move from market equilibrium ‘N’ to ‘M’
D None of the above

**Question 27**
Theoretically, which of the following would fail to explain the fall in world cotton prices (assuming a competitive market existed for cotton)?
A A rise in the costs of machinery for cotton farmers caused by a lower A$
B A weaker demand for cotton caused by a recession in Asia and the US
C Stronger levels of competition from easy-care synthetic fabrics
D A drop in the price of land used for growing cotton

**Question 28**
A rare Australian stamp was sold at public auction for $88,000. Which of the following answers offers the best explanation of why the market price for the stamps was so high?
A Buyers and sellers were misled about the collection’s value.
B The demand for these stamps by buyers was very strong.
C The supply of these stamps was fixed or limited.
D Both answers B and C help to explain the high price.
Question 29
Examine the hypothetical data contained in Table 1.7 below for the new extreme form of outdoor entertainment involving ‘Wild Activities’. New venues sprang up in Melbourne and Geelong. In order to share these thrills, daily entry tickets must be purchased through the market. Assume that there is a purely competitive market operating for tickets.

Table 1.7 The demand and supply for ‘Wild Activities’ tickets

<table>
<thead>
<tr>
<th>Price per entry ticket into ‘Wild Activities’</th>
<th>Demand (tickets per day)</th>
<th>Supply (tickets per day)</th>
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<tbody>
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<td>$10</td>
<td>9000</td>
<td>5000</td>
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<td>$15</td>
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<td>$20</td>
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<td>$25</td>
<td>6000</td>
<td>8000</td>
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</table>

Which of the following statements about the ticket market for ‘Wild Activities’ is false?

A. The demand for tickets contracts as the price rises.
B. The supply of tickets expands as the price falls.
C. There would be a market glut of tickets equal to 2000 per day, if the price was fixed at $25 per ticket.
D. In a free market, the equilibrium price of tickets (P_e) would be $20 per ticket.

Question 30
In the absence of government intervention, which of the following is not usually regarded as an example of market failure?

A. The high price of essential and socially desirable services such as health.
B. The overproduction of profitable yet socially damaging goods and services including guns and prostitution.
C. The existence of strong competition among market sellers of goods and services, perhaps including the markets for some primary products.
D. The existence of great income inequality in the absence of government intervention and policies.

Question 31
Free or unregulated market economies are often very unstable (e.g. the GFC in 2008–09). As a result, one of the government’s important functions is to stabilise the level of economic activity using counter-cyclical policies to regulate spending. Faced with a long and severe recession, the best corrective policy for the government to use is:

A. Reducing the level of government spending.
B. Cutting tax rates on personal incomes.
C. Increasing the rate of interest charged on credit borrowed by businesses and households.
D. Reducing the level of welfare benefits paid by the government to the needy.

Question 32
Unless the government intervenes, incomes will be distributed very unevenly in market economies. Which of the following policies is not helpful in reducing income inequality and poverty?

A. Taxes where the rate falls as incomes rise.
B. Payment of social welfare to those who have low incomes.
C. Provision of free public education and health by the government.
D. Promotion of superannuation for all people.

Question 33
Examine Figure 1.44 showing the recent world trend in the price of gold (US$ per ounce).

Theoretically, which of the following would not explain the spikes in the gold price in late 2011?

A. There was an increase in demand for this commodity, perhaps driven by global economic uncertainties.
B. There was a decrease in supply of gold.
C. There was an increase in the demand for gold combined with a decrease in supply.
D. There was an increase in the demand for gold combined with an increase in supply.

Question 34
Which of the following statements about market structure is incorrect?

A. Inflation is generally higher when there is pure competition in a market.
B. Product quality and customer service are generally poorer and industry output is lower when there is pure monopoly in a market.
C. In general, takeovers and mergers will only be allowed by the Australian Competition and Consumer Commission (ACCC) when this is seen to be in the public interest.
D. Price fixing, collusion and exclusive dealing by firms are illegal under the Competition and Consumer Act 2010.

Question 35
In order to make the distribution of income in Australia more even, there is a legal minimum wage (MW) set in the labour market.
Terminology revision

Question 1
A fun way to revise terminology is to use the following words in table 1.8 below to construct a crossword, where the clues ‘across’ and ‘down’ are the definitions (see your Economics dictionary). This task is made easy if you access a Puzzlemaker program.

Question 2
Match the correct terms below to complete the definitions that follow. You may use each term only once.

<table>
<thead>
<tr>
<th>The law of demand</th>
<th>The law of supply</th>
<th>An increase in supply</th>
<th>A decrease in demand</th>
<th>The conditions of demand</th>
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<tbody>
<tr>
<td>Equilibrium</td>
<td>A market shortage</td>
<td>A market glut</td>
<td>The market</td>
<td>The equilibrium quantity</td>
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<td>1. . . . tells us the quantity of a product that firms are willing to make available expands as the price rises.</td>
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<td>3. . . . is when the quantity of a product demanded exceeds the quantity supplied at a particular price.</td>
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<tr>
<td>4. . . . is where the quantity demanded and quantity supplied at a particular price are equal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. . . . tells us the quantity of a good or service which consumers are prepared to purchase contracts as the price increases.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. . . . represents an institution used for decision making where buyers and sellers negotiate prices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. . . . are affected by changes in disposable income, advertising and other factors affecting buyers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. . . . causes the price to fall towards the equilibrium level.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. . . . may be the result of firms supplying more at a given price.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. . . . exists when the quantities demanded and supplied are exactly equal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.8 Economics terms used in chapter 1

<table>
<thead>
<tr>
<th>allocation of resources</th>
<th>expansion in supply</th>
<th>market power</th>
<th>production possibility diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>anti-competitive behaviour</td>
<td>factor or resource market</td>
<td>market structure</td>
<td>public company</td>
</tr>
<tr>
<td>business sector</td>
<td>final market</td>
<td>microeconomics</td>
<td>pure competition</td>
</tr>
<tr>
<td>capital resources</td>
<td>franchise</td>
<td>monopoly</td>
<td>relative scarcity</td>
</tr>
<tr>
<td>capitalism</td>
<td>government economic goals</td>
<td>monopolistic competition</td>
<td>resources</td>
</tr>
<tr>
<td>conditions of demand</td>
<td>gross domestic product (GDP)</td>
<td>natural resources</td>
<td>socialism</td>
</tr>
<tr>
<td>conditions of supply</td>
<td>household sector</td>
<td>needs</td>
<td>sole trader</td>
</tr>
<tr>
<td>consumer sovereignty</td>
<td>income</td>
<td>oligopoly</td>
<td>spending</td>
</tr>
<tr>
<td>contraction in demand</td>
<td>labour resources</td>
<td>opportunity cost</td>
<td>supply</td>
</tr>
<tr>
<td>contraction in supply</td>
<td>limited liability</td>
<td>ownership system</td>
<td>two-sector circular flow model</td>
</tr>
<tr>
<td>decision maker or decision-making system</td>
<td>macromarkets</td>
<td>partnership</td>
<td>Competition and Consumer Act</td>
</tr>
<tr>
<td>demand</td>
<td>market</td>
<td>planned system</td>
<td>unlimited liability</td>
</tr>
<tr>
<td>efficient allocation of resources</td>
<td>market economy or system</td>
<td>price maker</td>
<td>wants</td>
</tr>
<tr>
<td>equilibrium</td>
<td>market equilibrium</td>
<td>price taker</td>
<td></td>
</tr>
<tr>
<td>expansion in demand</td>
<td>market failure</td>
<td>productive capacity</td>
<td></td>
</tr>
</tbody>
</table>

FIGURE 1.45
Which of the following does not explain the effect of the MW on Australia’s labour market?
A There is a shortage of unskilled labour in the labour market.
B There is a glut or surplus of unskilled labour that is unemployed because the MW or price of labour is set too high and is unable to fall.
C Unskilled workers who keep their job will have higher wages as a result of the MW, reducing the level of income inequality against other workers.
D Because of government regulation of the labour market through the MW, there cannot be equilibrium in the labour market between the demand and supply of unskilled labour.

Question 36
In the 2014–15 federal government budget, the Treasurer directed almost 6 per cent of all monies to defence and around 35 per cent to the payment of welfare. These and other outlays were paid for using various taxes. Which of the following does not follow?
A These government policies generally have no effect on correcting market failure.
B As a result of these policies, the Treasurer is changing the use or allocation of Australia’s resources that would otherwise occur in the absence of government.
C Welfare is seen as more important by the government than the production of defence.
D People receiving welfare can now better afford to purchase larger quantities of basic necessities (e.g. food, housing) than would otherwise be the case if the government did not use this policy.
Question 3
Complete the crossword below about the price or market system.

Across:
3. An ............................. is where the demand for a product grows as the price falls.
6. A ............................. is a term used to describe a situation in the market caused by prices being too low to create equilibrium.
8. A ............................. market is where there are no restrictions on the movement of prices up or down.
10. Resource ............................. is how inputs are used and what types of products are produced from the limited resources available.
11. A ............................. is a term used to describe a situation in the market where the quantity supplied exceeds the amount demanded for a product.
13. ............................. is the amount of a product that producers are prepared to make available at each possible price.
14. A ............................. product is where items are not differentiated by advertising.
16. ............................. is a condition of demand that affects the amount of a product demanded at a given price.
19. An ............................. is where several large producers control the supply of a product.
20. ............................. represent products that go with another item so they have linked demands.
21. The ............................. represents the price where the quantity of a product demanded equals the quantity of that product supplied.
22. ............................. is where there are many buyers and sellers competing strongly against each other in a market.

Down:
1. A ............................. is where the demand for a product shrinks as the price rises.
2. ............................. represents the amount of a product that buyers are prepared to purchase at each possible price.
4. ............................. represent products where buyers can switch between similar items depending on relative prices.
5. ............................. are what owners of resources seek to maximise by allocating resources appropriately.
7. ............................. is a condition that reduced the supply of some agricultural products in 2002–03 and 2006–08.
9. ............................. represent supply conditions that affect how much of a product firms produce at a given price.
12. ............................. are defined as factors that alter the amount of a product demanded or the amount supplied at a given price.
15. ............................. represents a demand factor or condition that affects the amount of a product purchased at a given price.
17. ............................. is where there is one seller controlling a market.
18. ............................. where there is a rise in the amount of a product demanded or the amount supplied at a given price.
This crossword was prepared using Puzzlemaker software. Try to construct your own crossword, word search or other puzzle using the definitions list in question 1 above.
Applied economic exercises

Question 1
A What does economics study?
B Giving examples, what are the main differences between macroeconomics and microeconomics?
C Classify each of the following issues as to whether they are likely to be primarily macroeconomic or microeconomic:
- the pricing of DVDs
- trends in Australia’s unemployment rate
- the drought and debt crisis among farmers in Victoria’s north-west
- the closing down of a timber mill in Victoria’s Otway forest
- the building of a new business making and selling surfboards and clothing in Torquay on Victoria’s surf coast
- a general fall in the rate of interest charged on loans made to individuals and businesses in Australia
- a cut by the Treasurer of Australia of the top rate of personal income tax from 45 per cent to 40 per cent, and the rate of company tax from 30 per cent to 25 per cent
- a further reduction in tariff protection in the textile and clothing industries from 10 per cent to 5 per cent.

Question 2
A What is the difference between something that you need and something that you want?
B Classify the following as to whether you think they generally represent a need or a want:
- an icy pole
- a Queensland holiday
- a grand final ticket
- a glass of water
- bus transport to work
- one pair of shoes
- a university education
- one meal a day
- make-up and cosmetics
- access to a doctor
- a new mobile phone
- electricity.

Question 3
A Define the meaning of the term resources used in economics.
B Explain the concept of capital resources. Give examples. Suggest reasons they are so important for an economy.
C Classify each of the following resources as ‘labour’, ‘capital’ or ‘natural’ resources:
- a new childcare centre constructed in your neighbourhood
- an expanded Citylink freeway system
- the Geelong football team
- buildings at the Docklands complex
- coal deposits in Gippsland
- artesian water (high quality water used for drinking or irrigation) in central Australia
- the twelve years or so you spent gaining an education
- the purchase by a business of robots and an advanced computer system
- Australia’s Prime Minister
- addition of fertiliser to the soil and the construction of a dam on a farmer’s land.

Question 4
A Describe the basic economic problem that is faced by both individuals and countries.
B A long-lost wealthy aunt generously left you $1 million in her will. Would you face the problem of scarcity? Explain your reasons.
C Why is air normally a free good, but electricity purchased from a power company is relatively expensive?

Question 5
This exercise is about opportunity cost and the production possibility diagram. Examine the data contained in table 1.9 for a farmer who can produce wheat or oats with the resources available. Assume that one tonne of wheat is worth exactly the same price as one tonne of barley. Now try the questions that follow.

<table>
<thead>
<tr>
<th>Production type</th>
<th>Production possibility A</th>
<th>Production possibility B</th>
<th>Production possibility C</th>
<th>Production possibility D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat (tonnes per year)</td>
<td>0</td>
<td>90</td>
<td>140</td>
<td>170</td>
</tr>
<tr>
<td>Barley (tonnes per year)</td>
<td>70</td>
<td>50</td>
<td>30</td>
<td>0</td>
</tr>
</tbody>
</table>

A List and explain the three main categories of productive resources available to this farmer. For each category of resources, try to give several specific examples as applicable to crop farming.
B Use the table to neatly draw and fully label the crop farmer’s production possibility diagram.
C What are the two general factors that limit the farmer’s productive capacity at a point in time?
D Using your diagram, what happens to the maximum production of barley that is possible as the farmer increases the production of wheat? Why is this the case?
E Using your diagram, what happens to the maximum production of wheat that is possible as the farmer increases the production of barley?
F Define the meaning of the term opportunity cost.
G What is the opportunity cost of the farmer producing or gaining 70 tonnes per year of barley?
H What is the opportunity cost of the farmer producing or gaining 170 tonnes per year of wheat?
I Which of these two crops is the farmer generally most efficient at producing? Explain why.
J Which production possibility (either A, B, C or D) should the farmer choose in order to maximise income and material living standards? Explain how you calculated this.
K If the farmer cut production and decided to produce only 50 tonnes of wheat and 20 tonnes of barley per year, explain what would happen to the farmer’s income and employment of resources.
L Explain why the farmer is currently unable to produce 150 tonnes of wheat and simultaneously produce 40 tonnes of barley. Explain how the farmer might be able to increase crop production to these levels in the future.

Question 6
The subset of questions that make up this exercise are about opportunity cost, and are based on two case studies:

Case study no. 1
You are the federal Minister for Transport and are faced with a decision as to whether or not you should: (1) provide government assistance of $18 billion to a private consortium to help build a very fast train (VFT) between Adelaide, Melbourne, Sydney and Brisbane or (2) spend this same amount of money on widening the current highway to carry an increased volume of trucks and private cars.

Case study no. 2
You are about to start Year 11 and have the choice of (1) working full-time in a retail shop selling women’s clothing where you would earn a steady wage of $30,000 per year or (2) continuing your two years of VCE and then three years of tertiary study. After five years of education, you will graduate with a degree in Commerce. Here you would start on around $42,000 per year and gain rapid rises thereafter.

A What is the opportunity cost of supporting the VFT?
B What is the opportunity cost of the freeway upgrade?
C What is the opportunity cost of you leaving school immediately and taking up the retail position?
D What is the opportunity cost over a five-year period of staying at school and then going on to university?
Question 7
A Define what is meant by the term economic system.
B What are the two main features found in any economic system?
C Neatly draw and fully label an economic systems diagram. On
this diagram, correctly locate and label two hypothetical
economies called Id and Asur using the following data:

<table>
<thead>
<tr>
<th>Country</th>
<th>System of ownership</th>
<th>System of decision making</th>
</tr>
</thead>
<tbody>
<tr>
<td>Id</td>
<td>80% capitalist</td>
<td>80% market</td>
</tr>
<tr>
<td>Asur</td>
<td>80% socialist</td>
<td>80% government planning</td>
</tr>
</tbody>
</table>

D Name the type of economic system used by Id, describing its
system of ownership and its system of decision making.
E Name the type of economic system used by Asur, describing its
system of ownership and its system of decision making.
F Briefly explain the convergence theory of economic systems. List
two possible advantages that Id’s economic system might have
over that of Asur.

Question 8
For a country, one important decision concerns how scarce
resources are used or allocated. Different nations use different
approaches to making decisions. Consider the following questions
relating to decision making in a predominantly market capitalist
economy.
A How do firms make decisions about what to produce in a market
capitalist economy?
B Referring to the operation of the market or price system, what
would cause the producer of the chocolate Cherry Ripe to decide
to increase output? What are some of the motives of such
producers?
C How would a similar decision be made in a planned socialist
economy such as North Korea to increase production of, say,
sugar or defence equipment?

Question 9
A Define what is meant by the term a market. Name three different
examples of particular markets found in most cities like
Melbourne, Ballarat, Hamilton or Geelong.
B Australia has a market-based economy. Outline the important
decisions in our economy made by the market.
C Explain what is meant by the term market structure. Copy
table 1.10 and outline five differences between pure
competition, oligopoly and pure monopoly, providing one
example of each type of industry.

TABLE 1.10 Features of different market structures

<table>
<thead>
<tr>
<th>Some features of a particular market</th>
<th>Pure monopoly</th>
<th>Oligopoly</th>
<th>Pure competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Level of competition or number of firms</td>
<td>................</td>
<td>............</td>
<td>.............</td>
</tr>
<tr>
<td>2. Level of product differentiation</td>
<td>................</td>
<td>............</td>
<td>.............</td>
</tr>
<tr>
<td>3. Level of influence over prices</td>
<td>................</td>
<td>............</td>
<td>.............</td>
</tr>
<tr>
<td>4. General level of efficiency</td>
<td>................</td>
<td>............</td>
<td>.............</td>
</tr>
<tr>
<td>5. Likely level of market prices</td>
<td>................</td>
<td>............</td>
<td>.............</td>
</tr>
</tbody>
</table>

Question 10
The market or price system decides how most resources are used
or allocated in Australia. This exercise looks at the operation of
demand and supply in a competitive market for chocolate bars.
A List any three preconditions needed for a purely competitive
market for chocolate bars. How would this differ from a purely
monopolistic market?
B Examine table 1.12.

TABLE 1.12 Demand and supply data for the chocolate bar market

<table>
<thead>
<tr>
<th>Price per chocolate bar ($)</th>
<th>Quantity of bars demanded per year at a given price (D1)</th>
<th>Quantity of bars supplied per year at a given price (S1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.50</td>
<td>600</td>
<td>200</td>
</tr>
<tr>
<td>1.00</td>
<td>500</td>
<td>300</td>
</tr>
<tr>
<td>1.50</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>2.00</td>
<td>300</td>
<td>500</td>
</tr>
<tr>
<td>2.50</td>
<td>200</td>
<td>600</td>
</tr>
</tbody>
</table>

Using table 1.12, plot a fully labelled graph showing the demand
line for chocolate bars (D1). According to the law of demand for
chocolate bars, how does a fall in price affect the quantity of
bars demanded? How does a fall in the price affect the quantity
demanded? Illustrate your answers by quoting figures from the
table.
C Again using table 1.14, plot a second fully labelled graph
showing the supply line for chocolate bars (S1). According to the
law of supply for chocolate bars, how does a rise in price affect
the quantity of bars supplied? How does a fall in price affect the
quantity of bars supplied?
Question 11
Wages represent the **market price of labour**. Examine table 1.13 showing approximate hourly wage rates in different countries. Assume that **labour markets** are reasonably free or competitive affairs.
A Explain what is meant by a country’s **labour market**.

B In terms of **demand-supply theory** (as applied to deciding wage rates in the labour markets for these countries), identify and explain the likely general reasons why some countries pay workers more than others.

C Try to draw a **demand-supply diagram** which shows, hypothetically, the main reason for low manufacturing wages in India relative to rates in Germany. **(Hint: On a single demand-supply diagram, you may find it useful to have one set of demand-supply lines or conditions for Germany, and a second set for India.)**

D Given the wage differences shown in the table, what **types of goods and services would not be made competitively in Germany, as opposed to India?**

**TABLE 1.13** Approximate average hourly wage rates in different countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Average hourly wage costs in manufacturing (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>33</td>
</tr>
<tr>
<td>Japan</td>
<td>25</td>
</tr>
<tr>
<td>United States</td>
<td>19</td>
</tr>
<tr>
<td>Australia</td>
<td>17</td>
</tr>
<tr>
<td>Singapore</td>
<td>9</td>
</tr>
<tr>
<td>Poland</td>
<td>3</td>
</tr>
<tr>
<td>Mexico</td>
<td>2</td>
</tr>
<tr>
<td>Russia</td>
<td>1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.5</td>
</tr>
<tr>
<td>India</td>
<td>0.3</td>
</tr>
</tbody>
</table>

**Question 12**
Assume that the federal government decided to **remove** the special 10 per cent tax on all producers of swimwear. You are a local producer of swimwear in a fairly competitive market with many other business rivals.

A Draw a hypothetical **demand-supply diagram** representing the swimwear market before the government removed the 10 per cent producer’s tax. Label all data on this diagram (i.e. label D1, S1, Pe1, Qe1, the names and units of the axes, and an appropriate title). On this D–S diagram, show the likely effects on the location of the supply line, **after** the removal of this tax. Again, ensure that all new data on this diagram are labelled (show S2, Pe2, Qe2).

B Explain why you shifted the location of the supply line in the way you did (i.e. from S1–S2).

C Explain how the government’s new tax policy would affect the quantity of resources (i.e. the quantity of labour, capital, natural resources) allocated to the production of swimwear.

**Question 13**
In Australia, governments carry out **three main functions** and modify the free operation of the market system.
- They use policies to **alter** the allocation of perhaps 20 per cent of our scarce resources.
- They use policies to **help** stabilise fluctuations in the level of economic activity or GDP.
- They use policies to **reduce** inequality in the distribution of personal income.

Keeping in mind these three main reasons for having some government regulation of our economy, rule up and complete a chart similar to table 1.14.
TABLE 1.14 Some possible Australian government policies to regulate the economy

<table>
<thead>
<tr>
<th>The government’s change in policy or decision</th>
<th>Explain the likely reason for, and effects of, the government’s policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A ban is imposed on the importation, sale and possession of automatic weapons.</td>
<td></td>
</tr>
<tr>
<td>2. Those consuming alcohol at a hotel must carry ID cards with proof of age.</td>
<td></td>
</tr>
<tr>
<td>3. The government cuts all tax rates and increases government spending on public works.</td>
<td></td>
</tr>
<tr>
<td>4. The government provides a 30 per cent rebate to all individuals taking out private health insurance.</td>
<td></td>
</tr>
<tr>
<td>5. The Treasurer raises the top marginal rate of income tax on high incomes from 45 to 55 per cent.</td>
<td></td>
</tr>
<tr>
<td>6. Tariffs on imported cars are reduced from 10 to 5 per cent.</td>
<td></td>
</tr>
<tr>
<td>7. Skateboarders are banned from all streets and public areas.</td>
<td></td>
</tr>
<tr>
<td>8. There is an increase in government welfare payments of $15 per week.</td>
<td></td>
</tr>
<tr>
<td>9. The minimum school-leaving age is raised from 15 to 17 years.</td>
<td></td>
</tr>
<tr>
<td>10. To counteract the actions of foreign governments, the federal government increases cash subsidies to primary producers.</td>
<td></td>
</tr>
<tr>
<td>11. International departure taxes are increased to $300 per passenger.</td>
<td></td>
</tr>
<tr>
<td>12. The federal government increases investment spending on railways and infrastructure projects.</td>
<td></td>
</tr>
<tr>
<td>13. The federal government passes legislation which forces equality between male and female wages in the same occupation.</td>
<td></td>
</tr>
<tr>
<td>14. The government announces that more money will be put into the provision of public education, health, transport and housing.</td>
<td></td>
</tr>
<tr>
<td>15. The federal government introduced a carbon tax at $23 per tonne in July 2012 where CO₂ emissions will have a cost for some businesses.</td>
<td></td>
</tr>
</tbody>
</table>

The aim of the game
After your teacher has completed the online registration of your trading syndicate, each group starts with a hypothetical $50 000 and your aim by the end of the 10-week game is to increase your money as much as possible. If you are fortunate, you may be able to make money by buying shares in companies when they are relatively cheap and selling them at a higher price. This requires that you research the listed companies (using the online database) to find out more about their future prospects, profits or losses, share prices, dividends and returns, and so on, before you decide to trade. The game’s winner is the syndicate that makes the most money by the closing date.

Additional follow-up research and case study of the stock market
Playing the ASX Schools’ Sharemarket Game would be a good introduction to further case study research. The following headings may be the basis for preparing a brief report into the stock market. Here you may examine the following:

- General description of the share market’s nature and features
- Who are the demanders or buyers of shares and what affects their decisions to buy?
- Who are the suppliers or sellers of shares and what affects their decisions to sell?
- The structure and level of competition in the share market (including the issues of insider trading, misleading reporting practices by some companies and auditors)
- Price and yield trends in the share market and how these are measured
- The recent causes of trends in the share market
- The good and bad effects of changes in the share market for individuals, and the effect on economic decisions and the allocation of resources
- What you learnt from playing the ASX Schools’ Sharemarket Game (including some mention of your best and worst decisions, and how you would vary your strategy if you played again).

Presentation
Your case study research could be completed in groups, syndicates or individually, and delivered as a written report, oral presentation to the class or PowerPoint slide show.

References
You can find out more about the nature and operation of the stock market by using some of the following references:
- DVD: the film Wall Street and its sequel
- Australian Securities Exchange tutorial
- brokers who offer share trading facilities and advice.

A team debate
Divide into teams. One team will take the affirmative side, the other team will take the negative. Work with others to prepare a debate on the following topic.

Debate topic
‘The market type of economic system is clearly the best way for nations to make decisions about the allocation or use of resources.’

Simulations — the ASX online Schools’ Sharemarket Game

Background
Ever wished that you could try your hand at buying and selling shares but lack the money to do so? Well, your wish has just come true! A fantastic way to get first-hand experience of how the stock market works, and how share prices provide signals to investors that influence resource allocation, is to actually trade shares online, by entering the Australian Securities Exchange’s (ASX) Schools’ Sharemarket Game. It is free, it runs twice yearly and, perhaps best of all, there are even money prizes for the most successful investor syndicates!
Economic simulation activity — role play

The federal government has called a forum to discuss ways of increasing Australia’s productive capacity (i.e. expanding its production possibility frontier).

Each group represented is required to deliver a speech (maximum five minutes) in which it makes recommendations for improving Australia’s resources. In order to start research on your policy proposals, your Economics class should be divided into the various groups that are attending the economics forum (see below for group ideas). After spending a lesson or so preparing your speech, elect a speaker to represent the group.

Possible groups at the economics forum:

- the conservationists or ‘Greens’
- a council representing the interests of immigrants
- a union of teachers and educationalists
- the business and mining council
- the Australian Council of Trade Unions (ACTU).

At the conclusion of the forum, each student is required to write a media briefing or media article stating the key findings of the forum.

A folio of annotated media commentaries using print or electronic materials

Collect and analyse a newspaper article about one of the following topics:

- an important event(s) that has affected the stock market
- the effect of changes in demand and supply on the share price of a public company listed on the Australian Securities Exchange
- the effect of changes in demand and supply on commodity prices (e.g. wool, wheat, gold, oil)
- the effect of changes in demand and supply on the exchange rate for the A$
- the impact of a change in a government policy that affects the allocation or use of resources
- the strategies used by some companies to restrict the level of market competition
- the privatisation of a government business enterprise.

Analysis of visual and statistical evidence

Examine figure 1.46 below relating to changing world copper prices (US$ per tonne).

A Quoting statistics, describe the trend in world copper prices between 1999 and late 2010.

B In terms of market theory, what are the two main general reasons for the price change between 2001 and late 2007, or between 2008 and 2010? Illustrate this change in prices using two fully labelled, hypothetical D–S diagrams (one for each main cause) representing the global market for copper. On each diagram, show the ‘before’ and ‘after’ situation in the copper market, following the impact of the factors.

C In terms of market theory, what are the two main general reasons for the change between late 2007 and late 2008? Illustrate this change in prices using two fully labelled, hypothetical D–S diagrams (one for each main cause) representing the global market for copper. On each diagram, show the ‘before’ and ‘after’ situation in the copper market, following the impact of these factors.

D Suggest and outline specific microeconomic reasons for the changing market conditions that existed in the global copper market between late 2007 and late 2008.

Case studies of markets

Markets are exciting institutions and we rely greatly on them to make decisions. They are full of surprises and are ever changing. As mentioned previously and outlined in the new course of study, students and teachers are encouraged to look at markets by taking a case study approach. For example, depending on local interests and circumstances, one of the following may provide an appropriate focus:

- the labour market
- rural commodity markets
- markets for non-rural commodities (e.g. oil and gold)
- the housing or property market
- the share market
- the foreign exchange market
- sport and leisure markets
- the finance market
- the health market
- online markets (e.g. eBay)

FIGURE 1.46 Changes in the actual and forecast world copper prices (US$ per tonne).

SCHOOL ASSESSMENT TASKS AND LEARNING ACTIVITIES

- transport markets
- local community markets.

It is hoped that this case study will bring market theory to life so that students gain a firsthand understanding of how the operation of markets affects their daily lives and the economic decisions we make.

Two market case studies are provided as examples to generate some ideas for teachers and students.

Case study 1 — Australia’s property market

The task and its presentation

Australia’s economy is based on the private ownership of property (i.e. land, houses, businesses and other assets) where people are free to buy or sell, and make profits if they choose. Your task here is to find out more about the nature and operation of the Australian property or real estate market. The following headings and notes may provide some guidance for your written report, oral presentation to the class or an ICT-based (e.g. using PowerPoint) data slide show.

1. Background and introduction
   Australia’s property market involves thousands of regional or individual markets. It is up to you as to how broad or narrow your study becomes. For example, you may choose to look at property in general throughout Australia; compare capital cities (e.g. Sydney and Melbourne); study Victoria; look at Melbourne, Geelong, Torquay and the Surfcoast, Mildura, Hamilton, Bendigo, Ballarat or Sale; or examine closely buying and selling in your suburb (e.g. Flemington, Essendon, Mentone, Newtown, Ringwood, Norlane) or perhaps even in your street block.

2. The general features of the property market
   Provide a definition of the property market that highlights its key features or the nature of the market.

3. Who are the demanders or buyers of property and what affects their decisions?
   What are the factors that influence the decisions of buyers in the market you have chosen? What aspects of a property make it attractive for buyers, and what things are a turn-off for buyers?

4. Who are the suppliers or sellers of property and what affects their decisions?
   What are the factors that affect the level of supply or property put on the market for sale? What are the backgrounds of the sellers?

5. The structure and level of competition in the property market
   Is the property market a purely competitive one or restricted by collusion among sellers? Are sellers price makers or price takers? What practices does the unscrupulous seller use?

6. Trends in property market prices
   Graph and compare trends in property prices over the past 1 to 10 years and provide a brief commentary summarising your findings. What are your predictions for future price trends and on what assumptions are these based?

7. If you were fortunate enough to have $500,000 to invest, how would the recent trends in the property market affect your decision about the allocation of your resources?

What are the alternative areas of investment? How would the gains or returns compare over the past 2 to 10 years in each area? Would these past trends have tended to attract or repel resources? What factors would affect your decision about getting into the property market? What are the hidden costs in each area of investment?

8. The good and bad effects of changes in property market prices on our economic decisions and resource allocation
   Who are the people that have gained from recent price trends in the property market? How have they gained? Which groups have suffered as a result of recent property trends? In what ways have they suffered?

Case study 2 — the oil market

The task and its presentation

Oil has sometimes been referred to as ‘black gold’. Dirty as it may be, it has brought some countries and individuals great fortune. For rich Western countries, access to cheap energy is critical to economic progress, low inflation and high material living standards. Your task here is to find out more about the nature and operation of the international oil market. The following notes may provide some guidance for your written report, oral presentation to the class or an ICT-based data slide show (e.g. using PowerPoint).

1. For background and introduction to the nature and operation of the international oil market, provide:
   - a general definition of the oil market
   - background information about the international oil market.
   For example, is it a purely competitive market, or one where there is collusion among cartel members to create a monopoly? What is the role of OPEC and who are the members?

2. Who are the demanders and buyers of oil internationally and locally, and what affects their decisions?
   What are the factors that influence the decisions of buyers in the oil market?

3. Who are the suppliers producing and selling oil internationally, and what affects their decisions?
   Include a map of the world showing OPEC producers and their share of market supply. What are the factors that affect the level of supply in the oil market? What are the motives of the sellers?

4. Trends in the international market price of crude oil
   Graph and compare trends in international crude oil prices over the past 5 to 30 or more years and provide a brief commentary summarising your findings and relating them to changing demand and supply conditions.

5. The wholesale and retail market for petrol in Australia
   You might also look at wholesale and retail petrol prices in Australia by considering the following issues.
   - What type of market is there?

Weblinks

Use the following weblinks in your eBookPLUS to conduct research about the oil market.

- OPEC website about the oil market
- Trends in crude oil prices per barrel
- International Energy Agency on oil
- WTRG Economics — oil price history and analysis
- Wikipedia, the free encyclopedia — oil price increases
- Refer to the investigation by the Australian Competition and Consumer Commission (ACCC) into the oil industry and petrol companies in Australia.
- Check out the Melbourne petrol price watch initiative reported by the RACV on its website.
- Search for media reports about the international and local oil markets.
- Search the internet using a search engine such as Google, for information about trends in crude oil and petrol prices in Australia and overseas.
• Why are sellers under the scrutiny of the Australian Competition and Consumer Commission (ACCC)?
• Are sellers price makers or price takers? (noting the daily price variations each week between weekends and other days)
• What practices do unscrupulous sellers use?
• Why has the number of independently owned petrol stations fallen and what effect might this have on competition and prices paid by consumers?
6. The effects of changes in the market price of oil and petrol
How might price changes affect:
• the allocation of resources towards oil exploration
• the development of alternative energy
• energy efficiency in cars and our decisions as consumers of energy
• Australia’s trade balance
• the inflation rate
• unemployment
• the sustainable rate of economic growth
• our natural environment?

A report on an investigation into the Melbourne real estate market

Outline of the task
During the late 1990s and 2007, Melbourne’s real estate market experienced a surge in property prices followed by a fall in 2008–09, and a recovery in 2009–14. These developments attracted much interest from homeowners, future buyers and investors. You are a trusted and independent adviser in the property market and have a reputation for providing sound advice. Your client has around $500,000 to invest in property with the aim of making capital gains by purchasing properties with good potential when they are cheap and selling them after their prices rise. Additionally, there is a possible tax advantage. There is the possibility of negative gearing, as well as a low maximum tax rate on capital gains of only 23.25 per cent (as opposed to a massive 47 per cent marginal rate on personal income over $180,000 (including a Medicare Levy) in 2014. You have been asked to conduct research into Melbourne’s real estate market and produce a professional-looking report for a client who has been asked to conduct research into Melbourne’s real estate market and produce a professional-looking report for a client who knows very little about property. Among other issues, you may report on the following aspects:
1. What is the property market, and is it a competitive market?
2. Who are the main buyers (demanders) and sellers (suppliers) of property?
3. What features do buyers (demanders) look for in properties? What are the traps for buyers? When is the best time to buy?
4. Who are the sellers and what is the best time to sell or supply property? What strategies do some unscrupulous sellers use to extract higher prices for their property?
5. Apart from property, what are the other attractive markets for investors with around $500,000?
6. What are the advantages and disadvantages of investing in property, relative to other markets (e.g. shares, fixed-interest bank deposits)?

Should your client purchase two properties in cheaper suburbs, or buy only one property in a prime location? In particular, undertake research using the real estate weblinks provided to complete several sample calculations for two representative properties in cheaper suburbs and one in a dearer suburb. Work out how much money your client would need to purchase these properties and account for the differences in price.

References
The following references may be useful for your research:
1. Search media reports and the real estate section of the major newspapers to find out about changes in Australia’s property market.
2. Search the internet using Google or another search engine for information about property trends.
3. Use the Real Estate of Victoria’s weblink listed in your eBookPLUS to help you with the above task. Alternatively, visit the other commercial real estate search websites.

A presentation — using multimedia

Using the internet and other resources, attempt the following research-based investigation into the factors affecting the productive capacity of a selected country. The summary of your findings can be presented as a written report, wall chart or PowerPoint class presentation.

Outline
Your task is to investigate why some countries are not able to produce as many goods and services as the Australian economy because their lack of natural, labour and capital resources limits their productive capacity, speed or economic potential. This is represented by our nation’s production possibility frontier. Your wall chart, brief report or slide show should compare Australia’s productive resources and production possibility curve with that of a poorer country. This means that you need to find some information about the quantity or efficiency of each country’s productive resources, since these supply-side factors affect productive capacity. For instance, contrast each country’s labour force and population (e.g. size and educational level and illiteracy, strike and productivity levels among workers), important natural resources that are abundant or scarce (e.g. arable land area for cultivation, soil fertility, minerals and climate), and capital resources (e.g. the level of annual business investment in new plant and equipment as a percentage of GDP and interest rate levels).

Structure and presentation
Your findings should be presented as a clear, concise and interesting wall chart, a 3 to 4 minute PowerPoint slide show or a written report containing:
• clear headings and subheadings (e.g. one for each type of productive capacity)
• location maps for the two countries
• graphs and tables contrasting the quantity and efficiency of each country’s resources, and its production or GDP per head levels (using Excel if you have access to a computer)
• brief descriptions of what each indicator you have selected actually shows about productive capacity
• digital photographs and diagrams.

References for the investigation
Your references for this investigation could include the following books and magazines:
• yearbooks for different countries
Introduction: Australia, a market economic system

A In the absence of government intervention in these primary commodity markets, what problems may arise for farmers and for the Australian economy generally?

OR

Question 2

In some instances, a market-based economic system fails to perform well. As a result, there is a need for government intervention to correct these weaknesses.

• What are the main strengths of allowing the price or market system to allocate resources?

• Explain two situations where the market system fails to allocate resources efficiently and satisfy society’s needs and wants.

View a DVD or program

To help understand the workings of an economy or economic system, watch the following DVDs or programs:

1. The nature of economics — Introduction to economics part 1 (Classroom Video, 2001)
2. The operation of an economy — Introduction to economics part 2 (Classroom Video, 2001)
3. Economic Australia — Market economy (program 1), Australian Broadcasting Corporation
4. Basic concepts of economics (Classroom Video, 2004)
6. Microeconomics (Video Education Australia/VEA, 2011)
7. Fruit shop economics (VEA, 2005)
8. Population and world resources (Classroom Video, 2003)
9. A crude awakening — the oil crash (History Channel, 16 May 2011)
10. Water, the drop of life (SBS, 21 April 2002).

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. Alternatively, use the cartoons weblink to help you locate a suitable cartoon.

An essay

You may like to select one of the following topics and write a 600-word revision essay.

Question 1

A Referring to recent trends in the prices received by grain, cattle or wool farmers, explain how the free operation of the price system should work well to allocate Australia’s scarce resources between alternative uses.
What is economics about?

- Economics is the study of how limited resources or productive inputs are used to help make individuals and society better off materially.
- Economics includes the study of macroeconomics and microeconomics.
- Macroeconomics looks at the whole economy and the factors that affect general economic conditions.
- Microeconomics examines the smaller bits that help to make up the overall economy such as a particular firm, an individual market, a sector or a specific industry.

People’s unlimited needs and wants

A starting point in the study of economics is that society’s wants for goods and services (products) are virtually unlimited due to:

- population growth
- the reoccurrence of wants
- materialism
- advertising and planned obsolescence.

The limited supply of resources available for use in production

Resources are the inputs needed to make output or production (GDP). There are three types of resource:

- natural resources (i.e. the gifts of nature)
- labour resources (i.e. mental talents and the physical power of workers)
- capital resources (i.e. physical plants and equipment that make other resources more efficient).

What a country or individual can produce is limited because the volume (quantity) and efficiency of resources is finite (limited).

The problem of relative scarcity

- Relative scarcity is simply the imbalance between people’s unlimited wants and limited resources available to satisfy those wants.
- Due to this scarcity, it is vital that resources are used or allocated efficiently.

Choice and the concept of opportunity cost

- Given scarcity and the fact that we cannot have everything we want, countries are forced to choose between alternative uses of resources.

- A decision to have one thing results in the loss of another: that is, production in one area is foregone to gain the advantage of another area of production. This is called opportunity cost.

- The production possibility diagram illustrates these choices.

- The production possibility frontier maps out the production combinations or choices when a nation uses all resources as efficiently as technology currently permits. It shows the economy’s productive potential, capacity or limit.

- The most efficient choice will be that point on the frontier where the total value of production is at its maximum, causing the satisfaction of society’s wants to be at its maximum.

- At a point outside the frontier, there would be inflation and a trade deficit, but inside the frontier, there would be unemployment, poverty and lower living standards.

- A country can cause its production possibility frontier to grow if it increases the volume or efficiency of its resources.

Four possible types of economic system

An economic system or economy is an arrangement to help organise the production and distribution of goods and services within a country. This requires a decision-making system to answer the ‘what’, ‘how’ and ‘for whom’ to produce questions, and an ownership system for assets and businesses (the means of production). There are four main types of economic system:

- Market capitalism (i.e. the market or price system makes decisions and there is much private enterprise)
• **Planned socialism** (i.e. government direction in decision making and state enterprise)
• **Market socialism** (i.e. the market or price system makes decisions and there is mostly state ownership of business)
• **Planned capitalism** (i.e. the government’s direction of decision making and a dominance of private ownership of business).

Recently, there has been a global *convergence of economic systems* towards market capitalism because this is currently seen as a more effective and efficient economy.

**Distinctive features of Australia’s economic system**

Australia has a market capitalist economy. This involves the dominance of the market or price system in decision making and a system dominated by private enterprise and ownership of assets.

• **Values and beliefs.** Our system is based on *two* types of values:
  1. belief in the importance of the individual, especially free enterprise, private enterprise, self-interest, competition, efficiency and consumer sovereignty
  2. supplementary collective beliefs or national economic goals pursued by government including the goals of sustainable economic growth, full employment, low inflation, external stability and an equitable distribution of income.

• **Ownership.** Our ownership system relies mostly on private enterprise or ownership of businesses — the means of production (e.g. sole traders, partnerships, public companies), assets or resources. Nevertheless, there is some government enterprise left, despite privatisation.

• **Decision making.** Our system of decision making relies on the price or *market system*, which reflects consumer sovereignty rather than government sovereignty. Here, market prices move up and down, creating signals for owners of resources to indicate which particular goods or services have been under- or overproduced. Owners of resources will follow these price signals, since they want to maximise their profits and incomes. As a decision maker, the market works as shown in the following diagram.

Despite the great importance of the free market or price system, decisions are also affected by governments, unions, advertising, the media, businesses and other pressure groups. Governments sometimes regulate markets when there is *market failure*. They affect how resources are used by means of legislation, taxes, subsidies, quotas, direct government production, agreements, government spending, and the creation of various regulatory institutions.

**The nature of markets in Australia**

Markets are the main decision-making institution in the Australian economy and, hence, we have a *market system*. There are thousands of them scattered around the country. They allocate around 80 per cent of our resources.

• **Markets** bring buyers and sellers together where they negotiate prices. Prices for resources are negotiated in factor or resource markets, while prices for finished goods and services are negotiated in final markets.

• **Market structure** (or market power) is a term that describes the type and level of competition between sellers. At the extremes, there is pure competition (many sellers, strong rivalry and sellers are price takers) and pure monopoly (only one firm controlling the market and it is a price maker). Between these extremes are monopolistic competition and oligopoly.

• **Purely competitive markets** involve special preconditions (e.g. strong competition between sellers, no product differentiation, no government controls or regulations, good knowledge of market trends, profit maximisation and rational behaviour by buyers and sellers). In reality, pure markets are less common than monopolistic competition, oligopolies and monopolies. Because competition checks personal greed, the *Australian Competition and Consumer Commission* (ACCC) helps to promote...
competition among rival sellers, and outlaws anti-competitive behaviour through the *Competition and Consumer Act of 2010*.

- Markets tell us what types of things to produce and how much to produce, and distribute production and incomes. They do this through the price system. In turn, prices affect whether particular goods and services are profitable. Rising prices usually signal to profit-seeking owners of resources that there has been underproduction and that output needs to be lifted. Falling prices in the market signal that there has been overproduction and that output should be cut by diverting resources to other purposes.

**Looking at markets using demand-supply diagrams**

The price or market system plays a vital decision-making role in our economy. Economists often use demand–supply diagrams to illustrate how various markets work. Several points can be made about these diagrams:

- The *demand line* shows that the quantity demanded by buyers (D) contracts (from Q₂ to Q₁) as the price rises (from P₁ to P₂), and the quantity demanded expands (from Q₁ to Q₂) as the price falls (P₂ to P₁). This is the *law of demand*.

- The *supply line* shows that the quantity that would be supplied by sellers (S) expands (from Q₁ to Q₂) as the price rises (from P₁ to P₂), and the quantity supplied contracts (from Q₂ to Q₁) as the price falls (P₂ to P₁). This is the *law of supply*.

- The *free market* always tries to move to a position of equilibrium (E₁). Only at this point do buyers (D) and sellers (S) reach an agreement about the actual market price (at Pe) and market quantity (Qₑ). Here, S equals D. At prices above equilibrium, there will be a glut (overproduction) in the market where S > D. Here, prices will be forced down towards the equilibrium level (i.e. at Pe). However, at prices below equilibrium, there will be a shortage (underproduction) in the market pushing prices up to the equilibrium level (at Pe).

- Once an equilibrium *market price* is established for each item, these prices are unlikely to remain steady for long because buyers and sellers are continually reviewing their decisions and changing their behaviour. Buyers may choose to demand an increased or decreased quantity of a particular good or service at a given price, while sellers may also choose to supply an increased or decreased amount of a particular good or service at a given price.

  - The equilibrium price can be affected by changes in the *conditions of demand*. The conditions of demand (the quantity demanded at a given price) can change due to changes in advertising, disposable income, tastes, fashions, weather conditions, government taxes, and the prices of complementary and substitute products. Using diagram 1 in figure 1.51 (see p. 54), these changing conditions can cause the demand line to move an increase from D₁ to D₂, causing a rise in the equilibrium price from P₁ to P₂. Alternatively, using diagram 2 below, the conditions can cause demand to decrease from D₁ to D₀ causing the equilibrium price to fall from P₁ to P₀.
The equilibrium price can also be affected by changes in the conditions of supply. The conditions of supply (the amount supplied at a given price) can change due to changing seasonal factors, costs such as wages, interest rates, altered profitability, tax rates on firms and government assistance to producers. Using diagram 3 in figure 1.52, these new conditions can cause the supply line to move and increase from $S_1$ to $S_2$ resulting in falling prices from $P_1$ to $P_2$. In reverse, using diagram 4, changing conditions can decrease supply from $S_1$ to $S_0$ resulting in rising prices from $P_1$ to $P_0$.

In response to rising or falling market prices (of factors of production or resources and finished items), owners of resources and businesses increase or decrease their allocation of resources to produce particular types of goods or services. They follow these price signals to help maximise their profits and incomes. That is, self-interest causes firms to follow price signals and to produce the things consumers want to buy.

Background for case studies of markets
Given the importance of markets in the Australian economy, students should take a case study approach to illustrate the theory of the market studied earlier. One of the following markets (or others listed in the course) may provide the focus for a case study:

- the labour market — an institution where buyers and sellers of labour negotiate wages and conditions
- agricultural markets — institutions where the prices of rural commodities are determined by buyers and sellers
- markets for other commodities — institutions where the price of commodities like oil and gold are set by buyers and sellers
- the housing and property markets — institutions where land and real estate prices are determined by buyers and sellers
- the share market — an institution where share prices are determined in the stock market by buyers and sellers
- the foreign exchange market — an institution where the rate at which the A$ is swapped for other currencies is determined by buyers and sellers
- sport and leisure markets — institutions where buyers and sellers of sport and leisure negotiate prices of these services
- the finance market — an institution where borrowers and lenders of credit or money determine interest rates.

Correcting market failure through government intervention in Australia’s market economy
Usually, the market is a very efficient decision maker and it performs well. However, on some occasions, there is market failure and it lets us down. In Australia’s economy, failure is corrected by government intervention using various policies. For example:

- The government stabilises the level of economic activity using interest rates, taxes and government spending to help regulate the overall level of national spending and reduce the severity of booms, recessions and the business cycle.
- The government sometimes changes the allocation of resources. It allocates extra resources towards socially desirable production (e.g. through legislation and budget outlays on health and education). It limits the volume of resources going into the production of socially undesirable items (e.g. with laws making some things illegal and high tax rates on alcohol, petrol and tobacco) and it promotes competition in the market to strengthen efficiency (e.g. by using microeconomic reforms).
- The government reduces income inequality by using progressive taxes, paying welfare benefits to the needy, providing essential community services cheaply, promoting superannuation and setting the minimum wage.
CONCEPT MAP 1

Introduction: Australia, a market economic system

What is economics about?

How best to use ‘limited resources’ (inputs)?
- Natural resources (gifts of nature)
- Labour resources (mental talents and physical power)
- Capital resources (physical plant and equipment)
Resources are needed to make any good or service.

The scarcity problem

How best to satisfy the ‘unlimited wants’ of society?
- Wants of households, businesses and governments
- Impact of advertising, materialism, re-occurrence of wants, population growth and planned obsolescence

The existence of scarcity means there is a need for individuals and society to make choices.

Choice in production results in ‘opportunity costs’ shown on the PPD.
- The PPF shows the economy’s productive capacity or potential GDP dictated by the volume and efficiency of resources.
- Choosing one good over another means that the production of an alternative good or service is foregone/given up—opportunity cost.

Economic systems include, for example:
- Market (price system makes decisions) capitalism (private enterprise and ownership)—e.g. Australia, US, UK, Japan, France, Singapore
- Planned (government plans) socialism (state ownership)—e.g. North Korea.
Different systems reflect different values or beliefs.

Three economic questions need to be answered by the economic system:
- What and how much to produce (types and volumes of products)?
- How to produce (production methods)?
- For whom to produce (sharing incomes and goods)?

Australia has a market capitalist economy.

Economic decisions are guided by the market or price system/price signals (from factor and final markets) and relative profitability. This system is sometimes modified by governments when there is market failure.

The nature of markets — buyers (D) and sellers (S) negotiate market prices (P).

Some markets involve pure competition or strong rivalry between many sellers who are price takers.

Prices are determined in markets by demand (buyers) and supply (sellers).

Some markets involve pure monopolies where there is only one seller of a good or service who is a price maker.
Economic instability can occur including booms and depressions. Here the government can reduce instability using various stabilisation policies.

Sometimes resources are mis-allocated and used inefficiently. For example, there is overproduction of profitable but socially undesirable goods and services (e.g. drugs), underproduction of cheap and affordable socially desirable goods and services (e.g. health), and often inefficiency in markets where competition is weak (e.g. monopoly and oligopoly). Here, the government can help correct this by reallocating some resources.

Great inequality can occur in the distribution of income and wealth. Here the government can reduce inequality by redistributing incomes using progressive taxes and welfare, for example.

As demand or supply increase or decrease, relative prices rise or fall (i.e. price signals). This affects the relative levels of business profits in different industries. These price signals tell owners of resources how best they can use their scarce resources to maximise their profits.

Rising final prices often signal underproduction (S<D) of a particular type of good or service. With increased profits to be gained, firms lift production and more resources are allocated.

Falling prices signal overproduction (S>D) of a particular type of good or service. With falling profits, firms cut production and fewer resources are allocated.

Although the free market system normally works well allocating resources efficiently to areas of greatest profit, ‘market failure’ sometimes occurs, requiring government intervention to help correct these problems. For example:

- Economic instability can occur including booms and depressions. Here the government can reduce instability using various stabilisation policies.
- Sometimes resources are mis-allocated and used inefficiently. For example, there is overproduction of profitable but socially undesirable goods and services (e.g. drugs), underproduction of cheap and affordable socially desirable goods and services (e.g. health), and often inefficiency in markets where competition is weak (e.g. monopoly and oligopoly). Here, the government can help correct this by reallocating some resources.
- Great inequality can occur in the distribution of income and wealth. Here the government can reduce inequality by redistributing incomes using progressive taxes and welfare, for example.