SACE ONE

ECONOMICS

WORKBOOK

SECOND EDITION

DIANNE AVERIS

Essentials education

ADELAIDE TUITION CENTRE

THE AUTHOR

Dianne Averis, Dip.T.(Commerce), Grad.Cert.Education., B.Ed.

Dianne is a Year 12 teacher with more than 30 years' experience, particularly at Year 11 and 12 levels.

She has been involved in Year 12 marking and moderation.

Dianne was the previous teacher-in-charge of Adelaide Tuition Centre's SACE2 Economics Revision Seminars for a number of years. She wrote the previous SACE Stage 2 Economics workbook, which ran for eight editions and also authored the SACE Stage 1 Economics text book.

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Contents

Introduction

The aim of the SACE Stage 1 Economics course is that you learn to 'think like an economist'.

You will be asked to inquire into various scenarios, to find reasons for problems, and to analyse strategies which may help you deal with the issues you uncover. Through the knowledge, skills and understanding you acquire throughout your study, you will use a model which helps you analyse issues in a logical way, considering the effects on individuals, firms and the government, and not forgetting the social and environmental consequences of economic activity, too.

The theory of the discipline, along with the building blocks of Economics – the language upon which it is based – will be introduced in class. This will give you a foundation for your learning. This workbook will present each scenario in a logical fashion, summarising the SACE guidelines, providing some relevant theory and developing the activities in each section towards a range of inquiries. It is important to remember the saying that 'information is not knowledge, and knowledge is not wisdom.' Finding the desired information is just the first step in your inquiry and no meaningful analysis can occur without understanding and knowledge.

You should try to put aside biases for or against a particular issue, and to take a neutral stance. Of course you will be able to come to a conclusion, which may or may not tie in with your initial impression, but that conclusion will have been arrived at from an objective investigation. You will benefit from using data to help validate your views.

Enjoy your study. Economics helps us make sense of the world we live in, and will assist you in making informed choices regarding many aspects of life.

Understanding economic data

Chapter 1: Using and analysing data

SACE Subject Outline – Summary

Students collect and analyse data in order to explain economic activity. They use appropriate graphs, diagrams and tables to display results that support their arguments.

In Stage 1 Economics you will be asked to both construct graphs and to analyse the results. Using data helps predict market trends and measure the outcomes of the behaviour of consumers, firms and the government. Data helps you make informed decisions. Development of the relevant skills require practices, and we should consider some key relevant factors.

Constructing tables

When you are collecting data, it may first be useful to organise your findings in table format. You should provide

- An appropriate title
- A heading for each column, including showing in brackets such features as % or $US for instance, if numerical data is being collected
- It may be useful to number your findings as Figure 1, Figure 2, etc. This enables ease of reference if writing a report referring to a number of findings.

An example follows.

Table 1.1: Employment status of males in the Australian labour force, 2006–2021.

Year	Employed full time (%)	Employed part time (%)
2006	70.6	11.8
2011	69.9	13.2
2016	66.9	14.1
2021	67.4	13.6

Sample male employment data. Source: HILDA survey, 2023.

Note

Don't expect the percentage of males working part time, plus those working full time, to total 100% of adult males, because there are many males of working age who are not working or actively looking for work. Reasons for this are asked in the activities at the end of this chapter.

Constructing graphs

While collecting data and compiling a table is useful as a starting point, constructing a **line graph** to show trends over time provides an effective visual impression.

You need to provide a heading, label each axis, and choose a scale to maximise use of the space provided and to allow ease of interpretation.

You may be showing more than one feature on your graph, for instance both full-time and part-time male employment compiled from our table above. To differentiate your two groups, use different colours for each category, or perhaps one unbroken, and another broken line to assist in interpretation. If differentiating using symbols, you may need to include a key to identify how you differentiated the two categories.

An example follows.

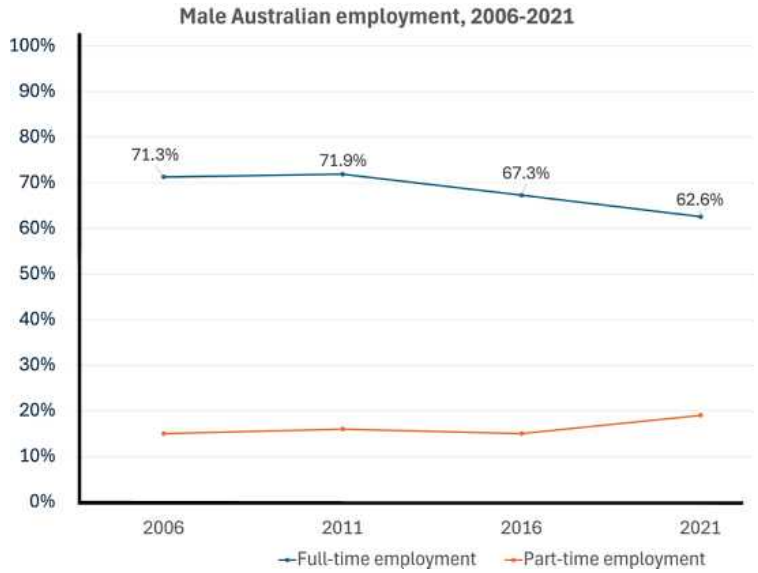


Figure 1.1: Employment status of males in the Australian labour force, 2006–2021

Some data is very effective when shown in **bar graph** form. For instance, you write a report stating that China is the source of 26% of Australia's online purchases, followed by USA with 12% and then a number of other countries. How much more impact that information has when conveyed visually, as below, possibly also making interpretation of that information easier, too.

Major Source Countries of International Purchases by Australians in 2023

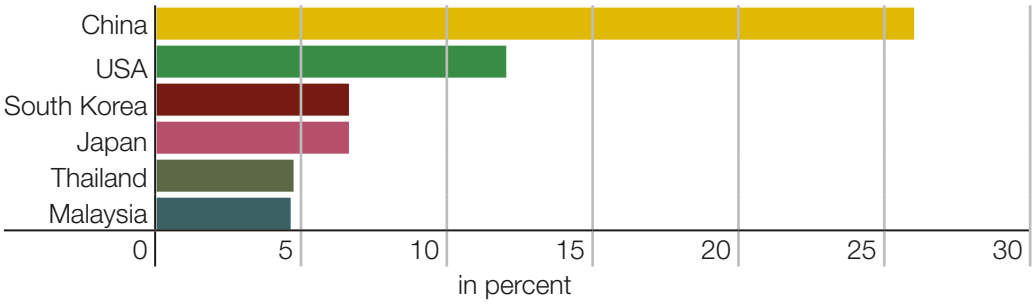


Figure 1.2: Source of 2023 online purchases (Trading Economics)

The data above regarding online purchases, also lends itself to effective representation as a **pie graph (or pie chart)**, as the components can be shown as a part of 100%.

Consider the following table.

Table 1.2: Percentage share of total Australian supermarket income in 2023

Supermarket	Market share (%)
Woolworths	37
Coles	28
Aldi	10
IGA	7
Others	18

The power of the two majors, Woolworths and Coles, is instantly apparent when shown in pie graph format.

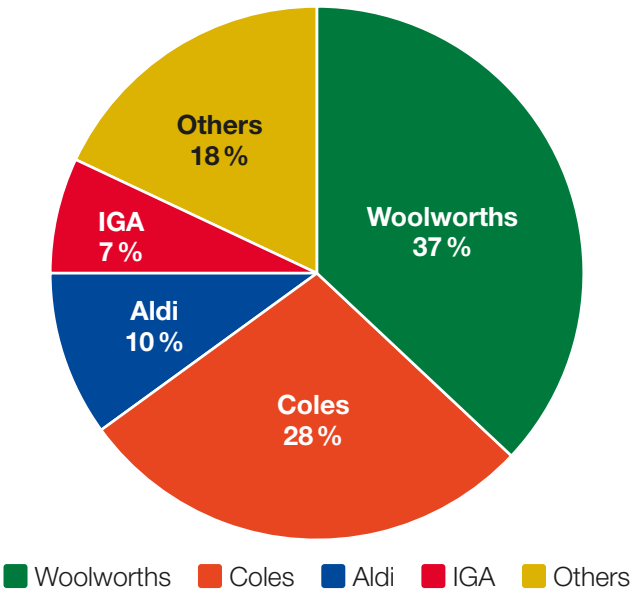


Figure 1.3: Market share (%) of leading Australian supermarkets, 2023

Hints for reading graphs

Collecting data and constructing a graph are necessary first steps when trying to explain what has happened in a scenario. It is necessary to use economic knowledge and understanding, plus further research to provide credible rationale for occurrences, before considering possible suggestions for courses of action.

Identifying a particular period

Many students have trouble reading graphs when asked to identify a certain year, month or quarter. Remember that the financial year is of importance to economists, and years will sometimes be labelled through a financial year (July 1 – June 30).

Sometimes it is useful to go back to the origin of the 'x' axis and read forward from there when trying to separate years or months. It might help to separate the relevant periods with a red pen so that you can identify a year, month or quarter more readily as shown below.

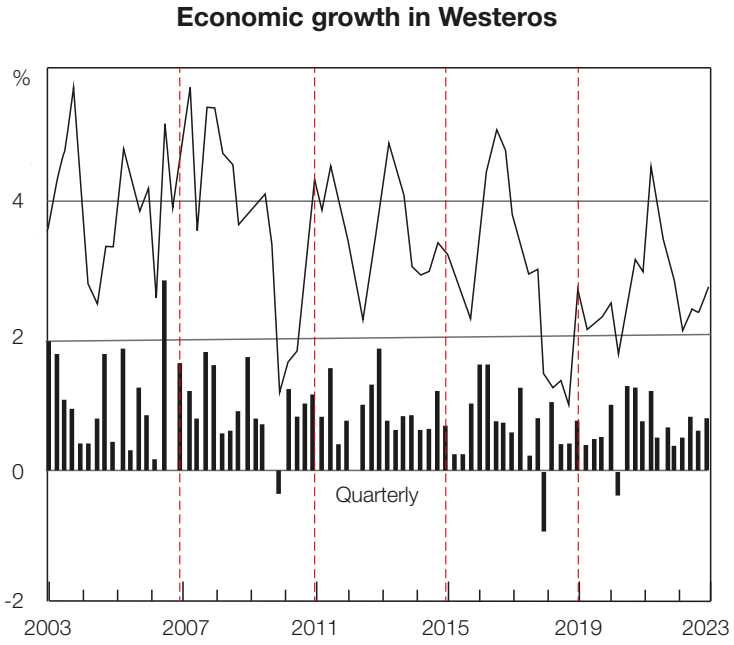


Figure 1.4: Economic growth in Westeros

Knowing the quarters of the year

Much economic data is measured at quarterly intervals. The measures of inflation and economic growth are two such important indicators. Published results may name quarters as the first, second, third or fourth quarter of the year. We name the quarters for the month in which they end. There are three months in each quarters of a year, so the first quarter is known as the March quarter, the second is June, the third September, and the fourth quarter of the year is the December quarter. You can see the measurements in quarterly increments economic growth in Figure 1.4.

Considering the trend

Able to be mathematically constructed, at its simplest, the trendline shows the general direction over time and is widely used in economics. Whilst outliers will appear on some graphs, the general pattern of values should be followed when considering trends, as can be seen below.

You will notice that the y axis does not start at zero. While mathematically incorrect, it can be visually confusing if this rule is unfailingly adhered to. For instance, in relation to the line graph below, all the measures fall between 740 thousand and 820 thousand. In this case we are 'zooming in' on the variations over the stated period to show differences which may barely be discernible if we used zero at the y axis and showed equal intervals. To the government of Essos and other stakeholders such as airlines, this mathematically distorted trend line is useful as even a small percentage change can have significant economic consequences.

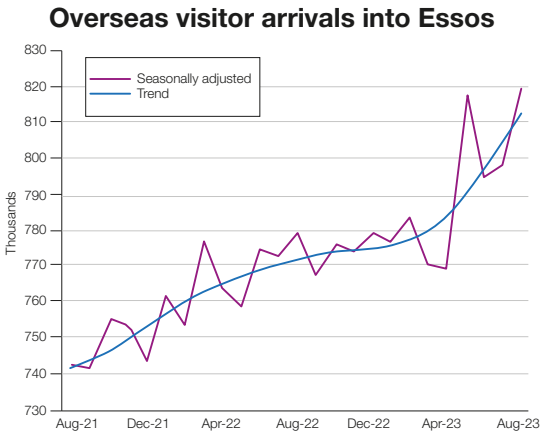


Figure 1.5 Overseas visitor arrivals into Essos

Identifying relationships between graphs, or lines on a graph

It is useful to recognise and understand the existence of patterns which may appear on graphs. For instance, it could be suggested that if economic growth, as shown by gross domestic product, is increasing, there could be more jobs around, and more people participating in the workforce. If the economist finds that both economic growth and the participation rate are both increasing, we say that there is a **direct relationship** between these two indicators. If economic growth was falling, and the unemployment rate increasing, the relationship is **inverse, or indirect**. You can see that in the graph which follows. As lockdowns and supply interruptions gathered pace in 2020 due to COVID-19, economic growth in Australia fell markedly while the unemployment rate rose steeply.

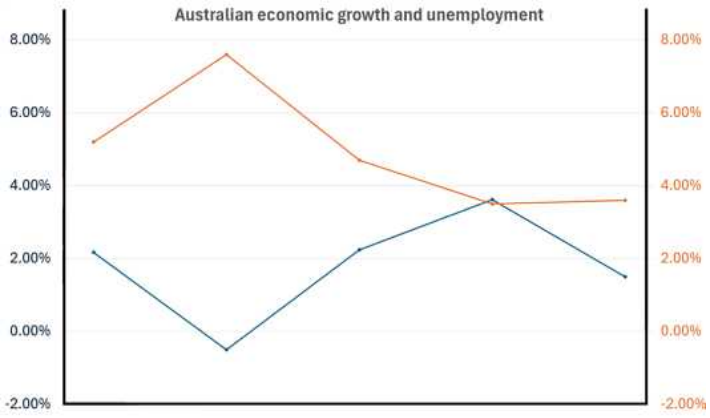


Figure 1.6: Economic growth and unemployment in Australia, 2019–2023.

Take a closer look at Figure 1.6. To analyse this graph, the scale for the unemployment rate percentages is shown on the right-hand side (RHS) of the vertical axis, while the economic growth figures are shown on the left-hand side (LHS).

Knowing the language of your subject

As you progress through this course you will be exposed to many terms which are new to you, or have a slightly different meaning to the word which you are familiar with. It is useful to keep a **glossary of economic terminology** so that you have a solid foundation which will help you build your knowledge and understanding of economics.

Interpreting a graph correctly

Be careful when explaining trends from a graph. Take note of what the graph is actually showing. For instance, if asked to comment on the trend following the global financial crisis (GFC) of 2008-9, many students would say the cost of rental accommodation fell. But look at the heading. It shows annual **growth** in rental payments. So rental costs actually grew, but at a diminishing rate. It would be correct to say that 'rental **growth** fell'.

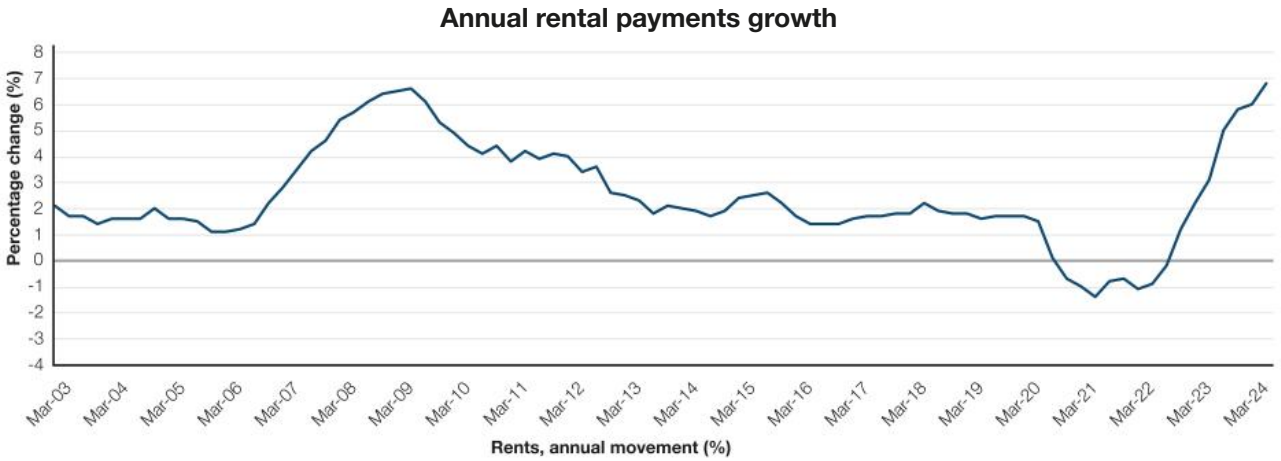


Figure 1.7: Annual rental cost growth in Australia, 2013–2024.

Understanding seasonal adjustment

Some useful measures related to the economy have expected upturns and downturns throughout the year. One example would be retail sales, which would generally be expected to peak just before Christmas. Without seasonal adjustment, it would appear that the increase in retail sales could be a sign of a strengthening economy, and policy actions may be taken to this effect. This then, could be a misleading signal. There is a statistical method for calculating seasonal adjustment, but for our purposes let us say that the calendar-related change is not omitted altogether, but is averaged out over the entire period. There are many activities which have seasonal peaks or troughs, for instance in relation to agriculture and food sales relating to certain products. You can see the seasonally adjusted trend in the following graph.

Figure 1.8: Online retail spending: Source ABS

Analysing graphs

A major role of the economist is in the interpretation of data. You will be expected to make suggestions regarding what could have caused changes. Of course, you should research possible reasons, but you will also be expected to draw on your life experience and asked to make a sensible suggestion. Economics was described by one my students as 'organised common sense'. Don't imagine that you cannot make a suggestion if you are new to the subject. You can. Technological change, for instance, has had a huge impact on some employment sectors. Social change regarding the growth of women and immigrants being in the workforce is another. The growth of renewable sources of energy, and the desire for university education after secondary school are also significant changes in our society. You know about all of these issues. There are often a variety of possible answers, and maybe none of them may be 'wrong', just perhaps less likely than another factor. **So, when asked to make a suggestion, have a try!**

Be creative

The line, bar and pie charts referred to here are just a starting point. When doing a PP presentation, for instance, or making a video, the visual impact of your material is important, so be creative in the way you make connections and display your findings.

Helpful online resources

Investigate the range of graphs and displays at:

www.gapminder.org

Be careful

Don't be misled by numbers. A large number isn't necessarily good. The banknote below, the largest unit of currency printed by Zimbabwe at the height of its hyperinflation in the first decade of the 21st century, was actually equal to US$10!

Activities

1. (a).

Female employment status in the Australian labour force, 2006–2021.

Year	Employed full time (%)	Employed part time (%)
2006	37.9	30.8
2011	37.0	31.5
2016	38.3	31.2
2021	40.2	32.6

Construct a line graph showing female labour force employment status. Take note of the previous suggestions relating to scale and labelling features of your graph.

(b) Compare the graph which you have drawn, with the graph showing male employment status on page 3 of this chapter.

(i) Suggest a reason for the differences relating to male and female part-time employment.

(ii) Male full time employment fell from 2011 to 2016 while male part-time employment rose. Suggest a possible reason for this trend.

(iii) Provide two reasons why males or females of working age may not be employed in either a full or part-time capacity.

(iv) Discuss the possible reasons for trend for male full-time employment between 2006 and 2021, compared with the trend for female full-time employment over this time.

Activities

(c) Consult Figure 1.2 on page 3. In 2019 40% of Australia's imports came from China. Consider the change evident in the 2023 graph. Research possible reasons for the difference.

2. Refer to the graph showing economic growth in Westeros (page 4).

(a) In which year did economic growth most recently peak in Westeros?

(b) Identify the most recent prolonged period when economic growth was weakest.

(c) Suggest a major reason which could contribute to economic growth falling (the value of production of goods and services).

(d) If you were in government, might you have been more likely to vote to raise or lower taxes in 2017–18 to deal with the economic state of the nation? Explain your choice.

3. (a) Provide an economic reason for the upward trend in overseas visitor arrivals into Essos (page 5).

(b) Provide both a potential advantage and disadvantage of this trend.

4. (a) Describe and explain the relationship which exists between economic growth and unemployment in Australia, as shown in the graph on (page 5).

(b) Do a web search and provide possible reasons for the trend in economic growth in Australia 2022–2024. Hint: look at what was happening with interest rates at the time.

(c) Now go one step further and suggest how that trend over time might affect individuals, firms and the government.

Activities

5. Refer to Figure 1.7, page 6.

   (a) "Rents fell 50% in the period 2008–10 in Australia." Comment on this statement.

   (b) Explain the trend in the cost of rental accommodation in Australia in 2020. Suggest three reasons for this unusual occurrence.

6. Consider the graph showing online retail sales in Australia 2020–24 on page 6.

   (a) Seasonally adjusted retail sales were relatively 'flat' in 2020–24. Suggest a reason for this trend.

   (b) Account for the trend in original retail sales figures each December.

   (c) What was the approximate seasonally adjusted value of online retail spending in the first quarter of 2024? How long has it taken for this figure to double? Suggest both a 'winner' and a 'loser' from this trend.

7. (a) Display this table in the graphical form which you think is most appropriate for maximum visual impact and for ease of interpretation.

*Percentages of Australians by income tax bracket**

Taxable income	2020–21
$18,200 or less	15%
$18,201 – $45,000	29%
$45,001 – $120,000	44%
$120,001 – $180,000	8%
$180,001 or more	4%
Total	**100%**

**Percentage of Australians rounded to the nearest 1%. Source: Australian Bureau of Statistics.*

Activities

(b) Refer to the table below.

Tax Rates 2024–2025 Year (Residents)

The 2025 financial year starts on 1 July 2024 and ends on 30 June 2025. The financial year for tax purposes for individuals starts on 1st July and ends on 30 June the following year.

Taxable income	Tax on this income
0 to $18,200	Nil
$18,201 to $45,000	16c for each $1 over $18,200 (16%)
$45,000 to $135,000	$4,288 plus 30c for each $1 over $45,000 (30%)
$135,000 to $190,000	$31,288 plus 37% for each $1 over $135,000 (37%)
over $190,000	$51,638 plus 45% for each $1 over $190,000 (45%)

Use the information in the table above to help you calculate the amount of tax due by an individual employee with a taxable income of:

(i) $50,000 pa

(ii) $100,000 pa

(iii) $200,000 pa

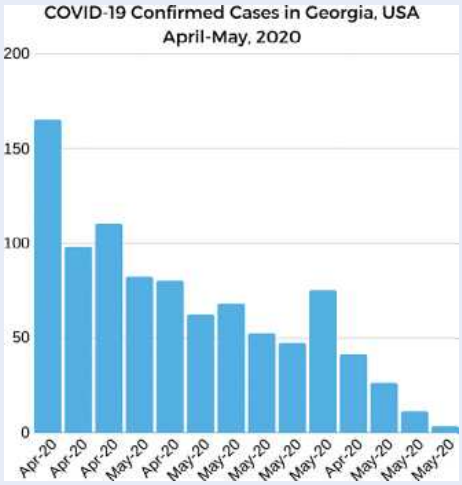
Of course with the Medicare levy to be added, and allowable deduction taken into account, the actual amount of tax paid by an individual may be significantly different from your calculations above.

(c) Investigate why it is that on double the taxable income you are due to pay double the tax.

(d) 'In 2020–21 15% of Australian citizens earned $18,200 or less. Extreme poverty is widespread in Australia.' Comment on this statement.

8. 'Georgia did an excellent job of steadily reducing COVID-19 cases even while loosening their restrictions faster than many other states'.

   Comment on this statement after closely observing the graph. (The employee who produced this graph for the Georgia Health Department lost their job.)



You can see that it is important to observe closely as it would be easy to be fooled by first impressions.

Economic scenarios

Chapter 2: Economic decision-making

SACE Subject Outline – Summary

Students explore production choices, using the production possibility frontier model to understand the concept of opportunity cost. They investigate trade-offs and factors influencing economic capacity.

Students consider decision-making using cost–benefit analysis, incorporating private, external and social costs and benefits.

Market outcomes are explored through the market structures of perfect competition, monopolistic competition, oligopoly and monopoly. The characteristics of these structures are considered, along with possible outcomes for consumers and firms within these markets.

The production possibility model

Opportunity cost

Economics involves making choices regarding the allocation of resources. While our resources are limited, our wants are infinite. Choices regarding the use of resources must be made between competing wants. This issue is what is known as the **basic economic problem**. Land could be used to graze cattle perhaps, but to do that the forest existing on that land would need to be cleared. Every decision, economic or otherwise, involves making a choice, and by deciding on one course of action, another possibility is being given up. We can say that opportunity cost involves '**alternatives foregone'**. By reading this page you are losing the opportunity of sleeping, talking with friends, and countless other possible pursuits. Note that in economics this term 'cost' does not confine itself to financial loss, but means any disadvantage. That, of course, may include a financial cost.

Resource classification

Resources in Economics can be divided into what we call the **factors of production, land, labour, capital and enterprise**.

- 'Land' refers to anything natural, for instance farming, grazing animals, fishing and forestry.
- 'Labour' is human effort.
- 'Capital' relates to something which has been created which can be further used in the production process. For instance, while forestry creates timber ('land'), a wooden table is a capital item. It has been produced and can then be bought for use in a restaurant to create a service and provide income for the owner.
- 'Enterprise' involves human effort, but goes beyond work. It is the innovation that the creator has taken to the market as a result of the time and research involved, considerable risk in raising the finance, and anticipation of market behaviour and likely demand. Playing Marvel's Spider-Man does not make you an entrepreneur, but creating a new genre of video game, which you finance, market and sell to consumers, does.

Whilst economic capacity depends on the maximisation of resource use, changes in the factors of production can be inhibited by many factors, including the level of technological advance, environmental or climatic factors, legalities, political inclinations, cultural or religious beliefs and the finite nature of some resources.

Assumptions

To understand opportunity cost, we make a simplification of the real world and draw the production possibility model, or graph. We base our analysis on two assumptions:

- Both resources and technology are fixed
- Only two combinations can be produced with the existing resources

Drawing the graph

Consider this example. Goods and services can both be plotted on a graph. This country, Econostan, could use its resources to produce 0 goods and 200 services, or put all of its resources into 100 goods, but provide no services. It is also possible to produce various combinations of both goods and services. This is shown on the next page.

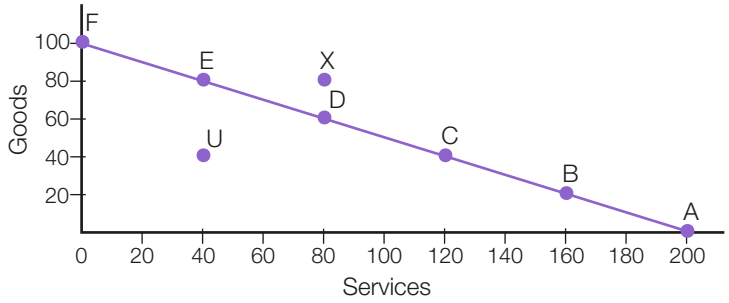


Figure 2.1: Production Possibility Curve for Econostan

Consider the graph.

The line joining the points A through to F is the production possibility frontier. It separates what is possible from what is not, and therefore we give the line itself the name 'frontier'.

Points A, B, C, D, E and F are various combinations that could be produced. At any of these points, Econostan is maximising its potential – it is producing at a combination which places it on its production possibility frontier. It is important to note that no one of these points is necessarily 'better' than another. At each of them **resource use is being maximised**.

What about point U?

This is the combination which Econostan may produce when consumer confidence falls and spending slows. You can see that the country is producing a combination of 40 goods and 40 services. It is operating well inside its potential. It could be producing more goods and more services to shift out to point D for instance. It has a high level of unemployed resources, meaning that **resources are being wasted**.

What about point X?

It is **impossible** for Econostan to be producing outside the frontier. The country cannot exceed its potential given its existing levels of resources and technology.

How does this model relate to opportunity cost?

There is always an opportunity cost involved if we are positioned on our production possibility frontier and we decide to increase production of either our goods or our services.

You can see in Figure 2.2 that to gain 40 services, 20 goods will be given up, as production falls from 100 goods to 80 goods.

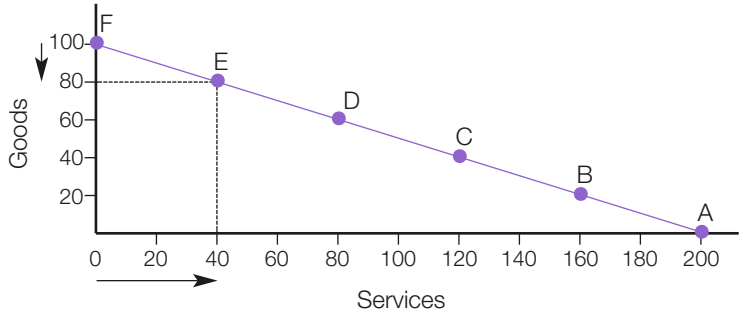


Figure 2.2: Opportunity cost of increasing the provision of services.

Note

When asked to calculate opportunity cost some students make the mistake of just giving the combination that could be produced rather than calculating what is given up. In other words, they would give the answer '80 goods' in the example above, which is the combination that could be produced with 40 services. But this is not what the question asks. What is being lost is 20 goods (100 – 80).

Activities

1. (a) Outline the economic use of the following terms:

- opportunity cost

- production possibility frontier

(b) State the assumptions upon which we base use of the production possibility curve.

(c) Draw the production possibility frontier that arises from the combinations provided below.

Consumer goods	100	80	60	40	20	0
Capital goods	0	10	20	30	40	50

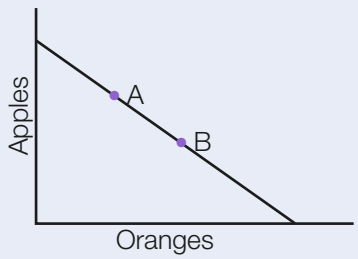
Hint: Keep these points in mind when you are drawing graphs:

- Use an equal interval for your scale. If you are using intervals of 10, for instance, don't write 0, 10, 20, 60, 80, 100.
- Always label each axis to show what it is you are plotting.
- Don't forget a title for your graph.

(i) What is the opportunity cost of increasing the combination of 40 consumer and 30 capital goods to 80 consumer goods, while still maximising resource use? Show this with arrows on the graph you have drawn.

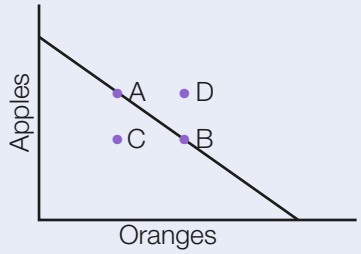
(d) Look at the graph which follows.

(i) Is it better to be producing at point A or point B? Explain your answer.



Activities

(ii) Referring to the graph which follows, is a wastage of resources occurring at point A, B, C or D? Explain your choice.



(iii) Consider the graph above. What point is unobtainable given present levels of technology and resource use?

Give a reason for your opinion.

(e) Construct a production possibility model from the information which follows.

Food	0	1	3	5	6
Machinery	12	10	6	2	0

(i) Mark on the diagram the combination of 2 units of food and 4 units of machinery. Call this point A on your graph.

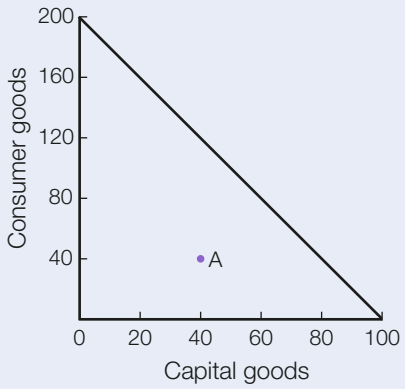
What can you say about a country producing this particular combination of food and machinery in terms of efficiency?

(ii) The demand for food remains the same, but demand for machinery increases to 6 units. Mark this combination on your curve and call it point B.

Comment on the movement from point A to point B. What does it mean?

Activities

(f) Circle the correct answer which relates to the following graph.



The opportunity cost of increasing the production of 40 consumer goods at point A to 80 consumer goods is:

J 40 capital goods

K 40 consumer goods

L 20 capital goods

M nil, as there is no opportunity cost.

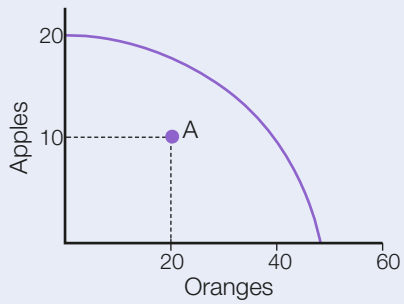
(g) You go to the movies on Saturday night with your friend.

(i) What was the opportunity cost of this decision for you?

(ii) Will the opportunity cost for going to the movies always be the same? Explain.

(iii) Is the opportunity cost the same for your friend? Explain.

(h) Consider the graph below.



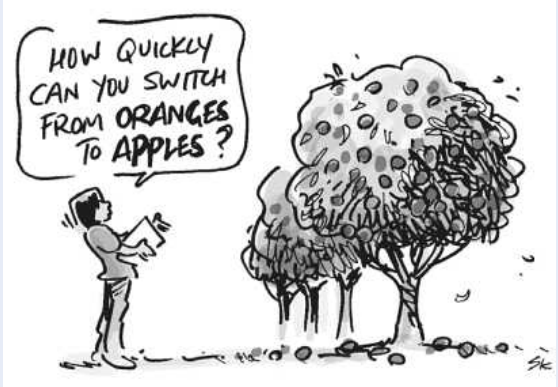
There is an increase in demand for apples. The opportunity cost of doubling apple production would be:

J 20 oranges

K 40 oranges

L nothing

M impossible to calculate.



Changes in the production possibility frontier

What happens if we relax our assumptions? If there is a change in resources or technology, our potential will change, maybe for both of the items being plotted, or perhaps just one.

This can be seen on the graph below, where scientific research has developed a new, higher-producing variety of apple. On the original land, the farmer could potentially produce 100 apples (and 0 oranges), or 200 oranges (and 0 apples). After the new development, the land could still produce 200 oranges (and 0 apples), but now the potential maximum for apples has increased to 200.

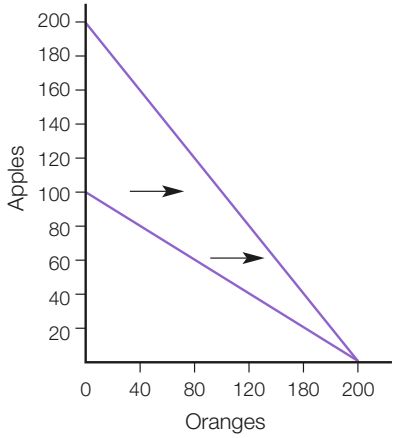


Figure 2.3: Potential output after technological development benefits apple production

More examples relating to a change in potential are shown below.

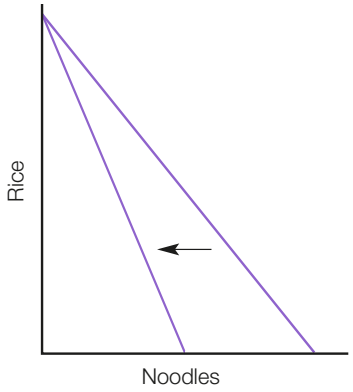


Figure 2.4: Noodle-worms destroy half the noodle crop

The potential for noodles will fall, but the potential for rice will not increase, as we had already ascertained how much rice could be produced if no noodles were produced.

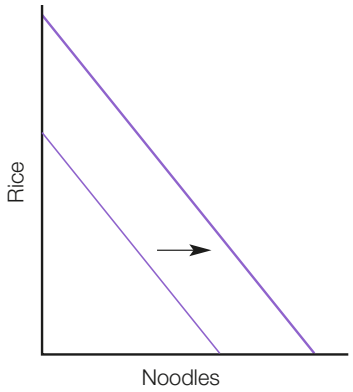


Figure 2.5: Agricultural land is reclaimed from the sea

Now there is more land, a resource, which means that more rice as well as more noodles could potentially be produced.

The effect of demand upon the production possibility frontier

Does demand change potential? Just because consumers may wish to purchase more apples or oranges, it doesn't mean that more resources or technology exist to increase the potential maximum for these fruits.

Thus a change in demand **does not change potential**. It causes a change in the combination being produced – a movement along or within the existing frontier.

Note that in the examples that follow, the frontier is not a straight line. This is irrelevant to the principle of opportunity cost. It simply means that the opportunity cost will vary at different points of production. The principle remains the same. If operating on the frontier, it is not possible to increase production along one axis, without experiencing a loss along the other. This is because resource used is being maximised at any point of operation along the frontier. In the graph below you can see that an increase in production of consumer goods from point A would incur a loss of capital goods.

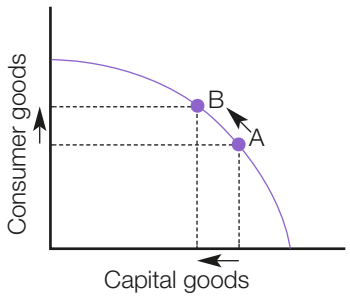


Figure 2.6: An increase in demand for consumer goods

Consider the graph in Figure 2.7. If Oodnawoopwoop was operating at point C, and there were significant tax cuts which created extra demand for both consumer and capital goods, Oodnawoopwoop could produce more of both capital and consumer goods and move out to point D. There is no opportunity cost in this case, as the country's available resources and technology were not being fully utilised at point C.

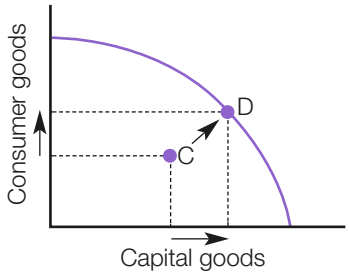


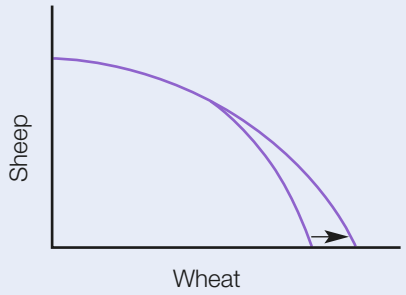
Figure 2.7: An increase in demand when resources are not fully utilised

Note

The key question to ask when trying to work out if the whole frontier changes is 'does the potential change'? If it does, either by a change in resources or technology, then a new curve will result. If it doesn't then there will just be a movement between different points on or within the existing curve.

Activities

2. (a) What is the most likely reason for the movement in the graph below?



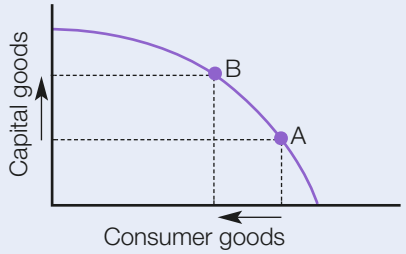
J increased consumer demand for wheat

K discovery of a new high-yielding wheat variety

L a virus sweeping through the sheep flock

M a shift in producers' preference from sheep to wheat.

(b) Consider the graph below.



The movement from A to B could have been caused by:

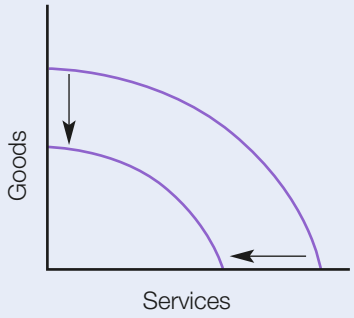
J a switch in demand from consumer goods to capital goods

K a switch in demand from capital goods to consumer goods

L an improvement in the technology of producing capital goods

M an increase in resources suitable for the production of capital goods.

(c) Consider the graph below.



A movement in the production possibility frontier as shown could have been caused by:

J a fall in demand for both goods and services

K technological advances in the production of both goods and services

L population increase

M a major earthquake.

Activities

(d) (i) From the information provided below draw a production possibility curve.

Bananas	0	10	20	30	40	50
Peanuts	150	140	120	90	50	0

Farmer Finnegan reclaims land from a swamp. It is perfect for growing bananas, but not peanuts.

The potential for bananas changes and possible combinations now are as follows:

Bananas	0	20	40	55	70	80
Peanuts	150	140	120	90	50	0

(ii) Use a different coloured pen to show the new combination of bananas on the graph you have constructed for part (i).

(iii) Now, what has happened to the potential output of peanuts?

(iv) Give an example of something which could cause a shift in the frontier in relation to bananas (remember the two key points which cause a change in potential and try to apply them to this example).

(v) Suggest something which would cause the entire frontier for peanuts to move to the left.

(vi) On the graph, mark the combination of 80 peanuts and 30 bananas. Call this point A.

(vii) Comment on Farmer Finnegan's efficiency at point A.

(viii) It is discovered that peanuts have the potential to increase life expectancy. Will this shift the production possibility frontier for peanuts? Explain.

(ix) Farmer Finnegan decides to respond to this news by increasing peanut production from 80 to 150 units. Is this physically possible? Explain.

(x) Farmer Finnegan changes his production combination from point A to 30 bananas and 90 peanuts. Label this point B.

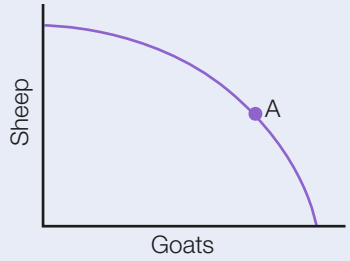
Activities

(xi) Comment on the opportunity cost involved in this move.

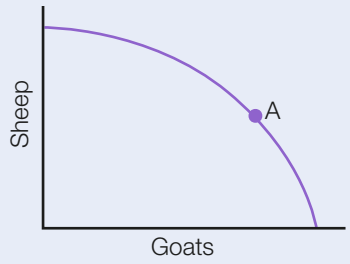
(e) Respond to each scenario given below showing its likely impact on each graph. **Does the potential change?** This is a key question you ask yourself. **If so, a new curve results** . **If not, there will be a change within or along the existing frontier.**

Note that point A on each graph shows the combinations that are currently being produced.

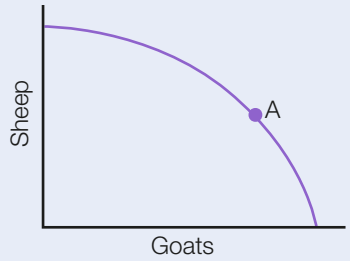
(i) outbreak of severe sheep disease



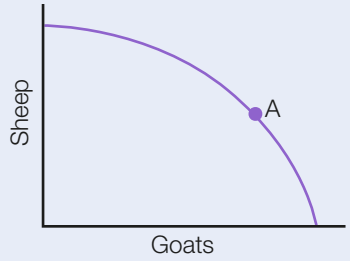
(ii) the high-fat content in lamb is said to contribute to obesity



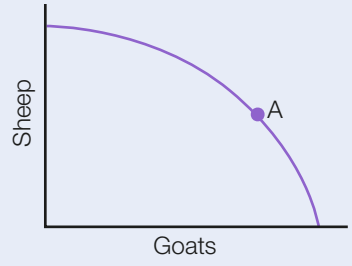
(iii) the price of goat meat rises



(iv) forests are cleared for agriculture



(v) goat cloning discovery is announced.



Note

Remember to ask yourself: does the potential change? If it does, a new curve results. If it doesn't, there will just be a movement along or within the existing frontier.

The concept of trade-offs

We all make trade-offs on a daily basis. You might stand at a cafe counter considering what to buy. You really fancy a muffin, but while waiting to be served, think that it would be healthier to have an apple. You opt for the muffin. You have traded off the health benefits of the apple for the taste of the muffin. You have created an opportunity cost. By choosing the muffin you have lost the opportunity on that occasion to have an apple. It is the alternative you have foregone. The opportunity cost is the loss of the next best alternative, which, to you in this example, is an apple.

Consumers, firms and government all make trade-offs, and thus incur opportunity costs. A government, for instance, might decide that the cost of free mass-vaccinations during a flu epidemic is worth the short-term financial cost of providing the vaccines. They have traded off a financial disadvantage in the short term with a potential societal health benefit, and fewer hospitalisations (and financial costs), in the long term.

The constraints we experience relating to time and money, along with other factors such as the state of technology and legalities, influence our decisions. Trade-offs are many and varied, and go far beyond the world of economics. By shortening our arms and standing us on two legs, we have experienced an evolutionary trade-off, in that we have lost the ability to swing between trees like our chimpanzee cousins while we have gained the benefits which developed our evolutionary superiority over the animal world today.

Trade-offs are linked with cost–benefit analysis, and will be considered later in this section.

Activities

3. Inquiries

(a) Trade-offs lend themselves to memes.

Get with a friend and create a meme regarding the economic concept of trade-offs relating to individuals, firms or government. Send it to your teacher for sharing in class. (You may need to include a brief explanation.)

Here is an example, published with permission of the secondary-school creators. Consider the trade-offs involved in the situation pictured here.

(b) Work in small groups to analyse trade-offs in relation to one of the following decisions:

(i) The federal government's compulsory superannuation scheme.

(ii) The state government's free tram travel within the Adelaide CBD.

(iii) The Adelaide Oval Stadium Management Authority's building of a hotel alongside the stadium in the city's parklands.

(iv) The state government's decision to allow fishing in Adelaide's reservoirs.

(v) The discussion around utilising nuclear power generation in Australia.

Brainstorm the topic, then find evidence and credible sources to identify the trade-offs and validate your opinion, providing a brief reason as to whether or not you agree that the major trade-offs were justified.

Changes in economic capacity

While economic capacity depends on the maximisation of resource use, as shown by our production possibility frontier, changes in the factors of production can be influenced by many situations, including the level of technological advance, environmental/climatic changes, legalities, political inclinations, war, migration, cultural or religious beliefs and the finite nature of many resources. Whilst countries wish to increase their potential and improve the standard of living of their citizens, this is often not readily achievable.

As well, there is the issue of sustainability to consider, and what degree of capacity improvement can be achieved without detrimental environmental, social or cultural impacts.

Activities

4. Inquiry – Influences on economic capacity

Compare the income over time of a high-income country with a less developed country.

Examples of high-income countries include the USA, Norway, Switzerland, Qatar, Australia, Germany, Ireland and England. Low-/middle-income countries include Somalia, Zimbabwe, Mozambique, Syria, Iraq and Pakistan.

Use the data you have found to construct a graph showing the trends in income over time of both countries. Gapminder.org is a useful resource, but display your results in a different format from others you see on a website.

Investigate several influences on resource use and development which have impacted on each country's economic growth over time, in either positive or negative ways.

You will possibly find that more than one issue is present.

Now explain why these issues have occurred. Use statistical evidence to support your arguments. If negative, were they avoidable? What of the future?

Cost/benefit analysis

To further consider the issue of trade-offs, cost/benefit analysis provides a more comprehensive framework to assist in effective decision-making. We divide the benefits (advantages) and costs (disadvantages) into several categories.

- **Private** costs and benefits are experienced by the decision-maker. For instance, if taxes are increased, the decision-maker would be the government.
- **External** costs and benefits are experienced by those affected by that decision, other than the decision-maker. From our example above, workers would be one group that would be affected by increased taxes.
- **Social** costs and benefits refer to the broadest group: society as a whole. If taxes are raised, workers will have less personal disposable income, thus spending in the economy may fall, decreasing economic growth. We try to combine private and external costs and benefits to see the effects on society as a whole. Governments and other decision-makers should try to come to a decision based on whichever plan has the highest ratio of social benefits to social costs.

Difficulties using cost/benefit analysis

If all costs and benefits had numerical values it would be relatively straight-forward to calculate the ratio of social benefits to social costs. However, many advantages and disadvantages do not have monetary values assigned to them. Some of the major issues in using the cost/benefit approach are outlined below.

Identification

Even identifying the costs and benefits can be difficult. Will the building of a new coastal marina cause sand erosion problems further along the coast? Will the erection of a wind-farm harm a rare bird species?

Measurement

Some costs and benefits are difficult to measure in monetary terms. What value should be assigned to how the noise from an Adelaide Oval concert affects neighbouring residents? What is the value to the government of allowing fishing in the state's reservoirs?

Time

Some benefits and costs do not become apparent for years after a project has commenced. Danger regarding the cladding used on some major South Australian buildings was only realised after a major fire in an apartment block in England caused 72 deaths, prompting many governments to test the quality of buildings under their own jurisdictions.

Distribution

What is a benefit to one person may be a cost to another. The noise from Adelaide Oval, referred to previously, might be abhorrent to one nearby resident, but a delight to another. Whose opinion is more important? How do you decide?

Activities

5. Outline the meaning of the following terms in Economics:

   (a) Private cost or benefit

   (b) External cost or benefit

   (c) Social cost or benefit

6. Read the article[1] and answer the questions that follow.

Relaxation of cannabis laws has mixed effects

Nearly 40 states in the United States of America have legalised the use of cannabis, with upward of 600 cannabis retail stores in Colorado alone. Annual sales of cannabis in 2020 in the USA totalled $27 billion. Specialists in addiction medicine have recorded a spike in emergency department presentations, because there is little control on the potency of the drugs that are on the market. In Colorado, the potency of THC, the active ingredient, tends to be considerably higher than the cannabis grown in Australia.

While there has been a significant drop in arrests for cannabis possession since the laws were changed in 2014, there has been a significant increase in violent crime and traffic accidents possibly linked to marijuana consumption. At this stage, however, there has been little investigation into whether there is a statistical correlation between those increases and the relaxation of the cannabis laws.

1 This article has been compiled from several media reports.

   (a) Who experiences the private costs and benefits of the decision to relax the laws on cannabis use? Suggest a cost and a benefit this group might experience.

   (b) Suggest several groups who might experience external costs and benefits from the decision. Who might gain and who might not?

   (c) Do you think the social benefits would outweigh social costs as a result of the relaxation of the laws? Justify your viewpoint.

   (d) Identify and explain two reasons why it could be difficult to use a cost/benefit analysis for this issue (the relaxation of cannabis laws).

Activities

7. Look back to question 3(b) (page 23) in relation to trade-offs, and see if you can improve your initial response to that same issue. This time, use the categories relating to private, external and social costs and benefits.

   Note your points below.

Market structures

The major economic motivator of businesses is profit. This goal affects their behaviour in the market place, but firms do not operate under equal conditions. Some have advantages over others. The farmer producing wheat along with hundreds of other wheat farmers around Australia is not likely to have the same influence over the prices they charge as the several major supermarket chains which dominate the grocery market in Australia. As thousands of small businesses collapsed around them during the COVID-19 pandemic, two dominant Australian supermarket chains actually increased their market share and profitability.

You can see their influence in the market place in Figure 1.3 on page 4.

Helpful online resources

Before considering the summary which follows, watch the video clip, *Four Market Structures*. The video is just under nine minutes long.

www.youtube.com/watch?v=atgMawWsKKI

Industries have different characteristics that help determine which market structure they fall into. Consumers want markets to provide them with choice, good quality, lower prices**,** information about the product and its price and innovation. These attributes are more likely to be attained in a competitive market, such as what we see in perfect competition and monopolistic competition.

Firms are interested in profit, of course. This is more likely to occur if they have less competition. Innovation and efficiency also help them achieve profits. While providing choice and high-quality goods/services costs them more, these factors may be necessary if there is a lot of competition so that they can attract consumers away from their competitors. The fashion industry us a good example of this.

Firms also need information, though the type of information they want may vary from that which is desired by consumers. Firms want to know about their raw materials, labour requirements and costs, taxes, and market behaviour, for instance. Firms that have the least competition may be able to make what are known as 'super-normal' profits. These are most likely to be found in oligopolies and monopolies.

The major features relating to the four market structures are summarised on page 28.

Characteristics of market structures

Market structure	Number of sellers	Ease of entry	Product nature	Level of price competition (e.g. discounting)	Innovation	Examples
Perfect competition	Many small firms	Very easy – often largely finance	Homogeneous (standardised – identical)	None (price-takers). A great deal of competition with competitors producing the same product.	Limited – financial constraints	Agriculture probably comes closest, but differentiating is increasing in this market too
Monopolistic competition	Many small firms	Relatively easy – often largely financial	Differentiated, e.g. vegan cafes, Fair-trade coffee	High price & non-price competition (e.g. advertising). Seek to gain brand loyalty.	May be followers rather than initiators – financial constraints	Cafes, bakeries, butchers, hair-dressers, retail fashion
Oligopoly	May be many, but only a few have major market share	Difficult – may be expensive, competing against established producers, may need licences	Could be homogeneous, e.g. Unleaded 91 petrol, so a 'pure' oligopoly, or a 'differentiated' oligopoly, e.g. car/beer, soft-drink manufacturers	If discounting starts others likely to follow. Not advantageous. Prefer non-price competition (e.g. advertising & developing brand loyalty)	Often high to increase market share, differentiate product, increase efficiency & increase profit	Petrol distribution, soft drinks, beer & wine production, vehicle manufacture, banks, fast food
Monopoly	One	May be blocked (e.g. through patents or legal constraints)	No close local substitutes. Product perfectly differentiated hence the monopoly	Can influence price significantly as no close competition (price-maker)	May be high to increase efficiency & profits	Australia Post (for letters), Adelaide Airport, the only hotel in a small country town

Table 2.1: Methods of categorising different markets

Helpful online resources

Watch this video made by a group of students which highlights some of these different characteristics. Don't stress about the new graph shown in the segment on monopolies. That will come later (probably at uni). After watching this clip you might like to get a bunch of friends together and try to out-do it.

www.youtube.com/watch?v=qqWiaTA3PMU

Activities

8. Inquiry – Firms in the market place

   Apply the theory of market structures to an industry of your choice.

   In your response, state clearly whether you are considering your industry from a state, national or global perspective.

   Industries you may choose from include cinema ownership, video games, telecommunications, restaurants, steel production, global cosmetics, internet service providers, electricity distribution, gym ownership, social networking sites, global diamond production, global movie production, global confectionery production, global washing-powder production, private schools, the dairy industry, retail music industry, private health care providers, the print media, or global oil production.

   (a) Prepare a table like the one on page 28 (Table 2.1), naming the industry you are investigating, and justifying your reason for choosing a particular market structure under the headings provided in the table.

   (b) Write a 500-word report considering your industry from the points of view of consumers and producers. Use your knowledge of costs and benefits. Who do you think gains most from this industry? Why?

   Terms that could help you compile your report include **innovation**, **lower prices**, **competition**, **quality**, **profitability**, **efficiency**, **choice**, **information**.

   Don't forget referencing!

Chapter 3: Markets in action

SACE Subject Outline – Summary

Students develop an understanding of the interaction of demand and supply and use the demand/supply model to understand the determination of equilibrium and the effect of price changes on quantity traded. They investigate factors affecting market failure.

The basic economic problem existing in our world is that, while our resources are limited, human wants are unlimited. So how do we decide what to produce?

Demand

In most countries today, it is the interaction between buyers (who demand goods and services) and sellers (who supply the goods and services) that mainly determines the price of our purchases. In the 20th century, in what were known as planned, or command, economies, the government set the prices, but with the widespread collapse of communism in regions such as the Soviet Union in the later decades of the 20th century, the planned economies generally turned towards what we call market, or capitalist, economies. In that economic system it is the general freedom of choice and action between consumers and firms which determines economic output and the price of goods and services. Since COVID-19 however, with international supply issues arising, there has been greater government intervention in the market, which will be considered in chapter 5.

A market does not have to be a physical place, as you would know through your online purchases. It is simply a situation where buyers and sellers interact. In the market economy, there are millions of such interactions occurring on a daily basis.

Demand is defined as our ability and willingness to purchase (consume) goods and services. Wanting a holiday in London is not demand in an economic sense. Unless your desire is backed by your financial ability to take a holiday in London, you are not exhibiting economic demand.

We can show demand through the use of a graph – an economic model. It is necessary for you to accept the premise that **as the price of a good or service rises, the quantity demanded will fall. The opposite occurs when prices fall.**

If you think about your own purchasing habits you will agree that this assumption generally holds true. Exceptions may occur on an individual level, for instance in relation to medicine required by a very ill patient. He/she may be willing to pay the higher price, as it is essential for their survival that they do so. So, while there may be exceptions on an individual level, we accept that for a market as a whole, this assumption holds true.

This gives rise to our demand curve, which will appear thus:

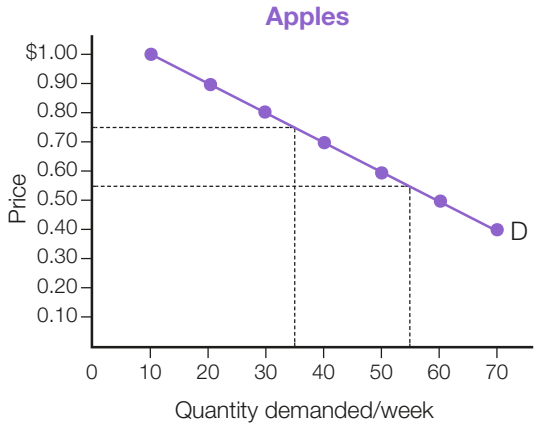


Figure 3.1: Demand curve for apples

In figure 3.1 you can see that if the price was 55 cents, consumers would buy (demand) 55 units. If the price was increased to 75 cents, then consumers would only demand 35 units.

Whether the line that we construct is a curve or a straight line, the principle still holds true that the lower the price the greater the quantity demanded, and vice versa.

Expansion or contraction in demand

If there is an increase in price of the item being plotted, the quantity demanded will **contract**. This can be seen on the graph below (Figure 3.2). At a price of $5 per kilo, consumers would buy 100 kilos of apples, whereas, if the price rose to $10 per kilo, the demand would contract to 50 kilos.

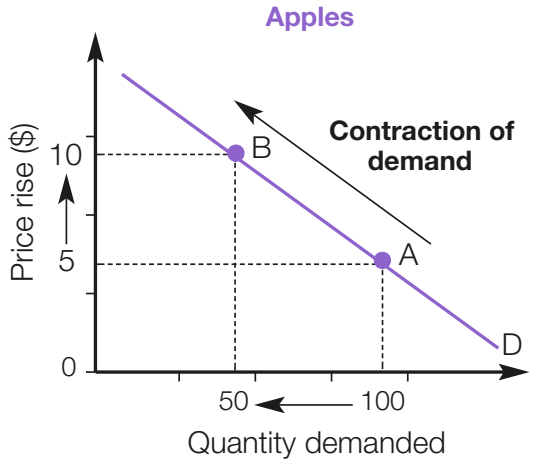


Figure 3.2: A contraction in demand for apples

If there is a fall in the price of the item being plotted, this will result in an **expansion** of demand. This is sometimes also referred to as an **extension** of demand. Consumers would be expected to buy more at the lower price, holding other factors constant (called 'ceteris peribus'), as can be seen below. At $4 per kilo, consumers buy 100 kilos of tomatoes, but if the price dropped to $2 per kilo, then demand would expand to 200 kilos.

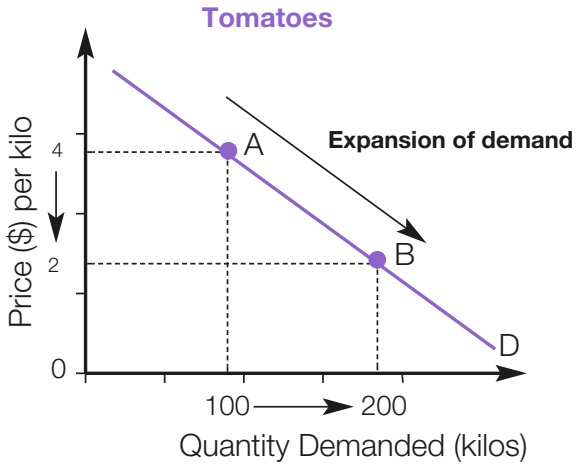


Figure 3.3: An expansion in demand for tomatoes

Factors influencing demand

Think about your own spending. What influences your decisions when you purchase goods or services? Key factors include the following.

Level of income

This is the major influence on demand, as you will understand. Not only will wealthy people probably buy more goods and services than people who are poor, but they may spend their money on better quality or more luxurious items. Income levels can be affected by factors such as wages, salaries, social security payments and income taxes.

Availability of credit and changes in interest rates

Some societies are becoming almost cashless as credit cards and after-pay services are becoming increasingly common. Interest rates can affect demand, too. The higher the interest charged on borrowed money, the less likely consumers are to borrow because of the increased cost of repaying their loans.

Availability of substitutes

If the price of lamb increases and beef is cheaper, consumers may substitute beef as an alternative source of protein.

Whether the goods/services are complementary

Complementary goods go together. For instance, if you have a car you will need to pay for petrol, tyres and maintenance. A sudden rise in the price of petrol may cause only a minor change to quantity demanded, because if you have a car you need the petrol. However, you could decide to find an alternative means of transport.

Individual tastes and preferences

People's preferences vary enormously. We might be influenced by advertising or fashion. The seasons and the weather certainly have an impact on our demand.

Consumer confidence

Consumer spending is a major component of spending in our economy. In Australia, it is the major contributor to our total spending, being greater than spending by firms, the government or the overseas sector. Consumers are more likely to feel confident about their economic future if their job is secure, their standard of living is rising and they live in a politically stable country.

Activities

1. (a) Outline the meaning of the following terms in Economics:

(i) A market

(ii) Demand

(b) How do consumers respond as prices rise?

(c) Jot down four items that have become increasingly demanded over the last few years because of technological change.

(d) Construct a demand curve from the following schedule. Be sure to use a ruler, and choose a scale that maximises the use of the space provided.

Demand schedule for ice cream

Price ($)	Quantity ('000)
3.20	8
2.40	12
1.60	16
0.80	20

(e) Consider the impact of the COVID-19 pandemic on total (aggregate) levels of demand in the country. Suggest four major factors which caused levels of demand to fall.

Changes in the demand curve

Now let us consider what happens if there is a change in factors **other than a change in the price of the item being plotted.** If workers experience a pay rise, they are likely to spend more without any changes in prices, as they now have greater disposable income.

Let us consider what happens if wage earners all receive tax cuts. What might this do to the demand for chocolates?

Demand for chocolates is likely to **increase**; that is, there would now be a greater number demanded at the same price. At a price of $10, wage-earners would buy 165 chocolates instead of 115, as we can see below.

Figure 3.4: Increase in demand for chocolates

But what is likely to happen to the demand for chocolates if there is a heatwave? Demand for chocolate is likely to **decrease**. That is, there would be less demand even though there has not been a price change. As a price of $10, you can see that consumers would now buy 120 chocolates.

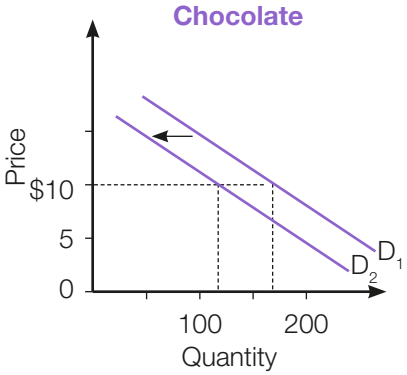


Figure 3.5: Decrease in demand for chocolates

As you can see from these examples consumers would buy either more or less than before, though the price of chocolate is unchanged.

Note that an **increase** in demand shifts the curve to the **right**, as consumers are willing to buy a greater quantity than before at the same price. A **decrease** in demand shifts the curve to the **left**, as consumers are willing to buy a smaller quantity than before at the same price.

Don't forget that if the price of chocolate had changed in figures 3.4 and 3.5 above, there would have been no new curve, but instead a movement along the existing curve, as shown in figures 3.2 and 3.3, denoting a **contraction** and an **expansion** in demand.

Helpful online resources

Sometimes it is hard to get your head around this point, so try some revision by watching this short clip *A Change in Demand vs a Change in the Quantity Demanded*.

www.youtube.com/watch?v=GJuWLGqZpIM

Activities

2. Outline the meaning of the following terms in Economics:

   (a) contraction in demand

   (b) expansion in demand

3. Complete the following sentences.

   The higher the price the _____ will be the quantity demanded.

   Demand means being willing and _____ to make a purchase of goods or services.

   A general rise in incomes would probably lead to a/an _____ in demand.

   An expansion in demand occurs when there has been a _____ in price of the item being plotted.

   A rise in price of the item being plotted brings about a _____ in demand. (Hint: 'Decrease' is not the missing word.)

   If the price of lamb halves, there will possibly be a/an _____ in demand for beef.

4. (a) Plot the information from this table onto a graph. Don't forget to use equal intervals for the points along your axes.

Price of milk per carton ($)	Quantity demanded (cartons)
0.50	180
1.00	140
1.50	100
2.00	60

   (b) Read from your graph and answer:

   How many cartons are demanded at a price of $1.75?

   For a producer to sell 60 cartons of milk, what would the price need to be?

Activities

(c) A research finding is published, showing that milk is linked with various diseases.

Consumers respond to this news by decreasing their consumption of milk. Their level of demand now becomes:

Price of milk per carton ($)	Quantity demanded (cartons)
0.25	120
0.75	80
1.25	40
1.50	20

Plot this new information back onto the graph you constructed in part (a). Label it D_2.

(d) At D_1, how many cartons of milk were demanded at a price of $1.25? (Don't forget to rule from $1.25 across to your D_1 line and rule down to the horizontal axis to read from your graph most accurately & don't rely on just looking - mistakes happen!)

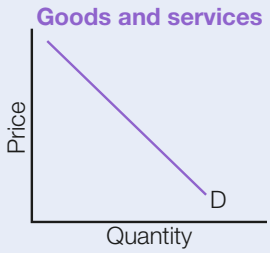
At D_2 how many cartons of milk were demanded at the same price?

To sell 60 cartons of milk, what would the price need to be at D_2?

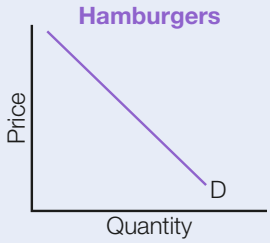
(e) Suggest three factors which could cause an increase in demand for milk.

5. Show the effect of the following situations on the demand curve. (Don't forget to label the new curves.)

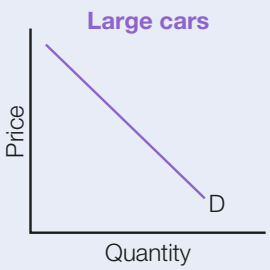
(a) The government raises income tax.



(b) The price of pizza doubles.



(c) Huge oil and gas discoveries slash the price of petrol.



Activities

6. List three items showing a change in demand because of changing fashion. (Don't just say 'clothes', for example, but think about which clothes, and which styles, are changing in demand. Of course, it is not only clothes which are affected by fashion.)

Suggest items which are becoming more popular.

Suggest items which are becoming less popular.

7. Suggest three complementary goods or services.

Supply

The quantity consumed depends not only on what consumers purchase, but also on the quantity suppliers make available to the market at any given price.

Just as demand signifies willingness and financial ability to make a purchase, so the term **supply** indicates a willingness and financial ability to sell the good or provide the service at a particular price.

Producers are likely to provide more goods and services as prices rise because of the likelihood of greater profits ('ceteris paribus' – holding other factors constant). Thus the supply curve slopes upwards from left to right, as can be seen in Figure 3.6.

We say that there is a **positive correlation** between price and quantity in relation to supply.

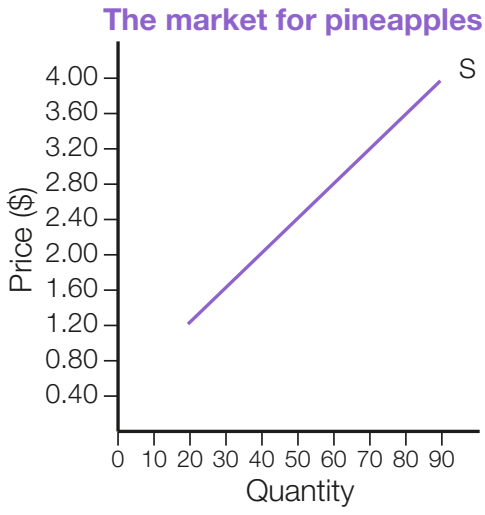


Figure 3.6: Supply curve for pineapples.

Expansion or contraction of supply

Just as a change in price of the item being plotted causes a movement along the existing demand curve, so it is with supply. A price change causes a movement along the existing supply curve. If prices rise, suppliers will prefer to supply more, as there is a chance of greater profit. If prices fall the reverse is true.

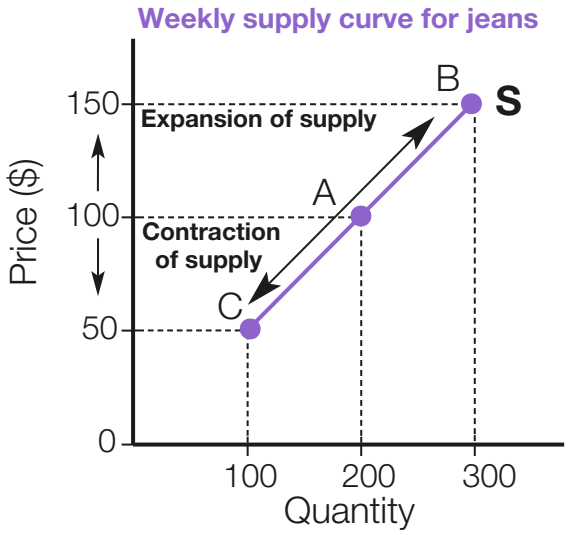


Figure 3.7: Expansion/contraction of supply of jeans

You can see that as the price increases from $100 to $150, there is a movement along the supply curve from point A to point B. The quantity supplied increases from 200 to 300 per week. There has been an **expansion** (extension) of supply.

On the other hand, if the price falls from $100 to $50, some producers will be unable to make a profit, and the quantity supplied will drop from 200 at point A, to 100 at point C. This would be a **contraction** in supply.

What factors influence supply?

There are a number of factors influencing supply. A simple example is the importance of weather to a farmer. If there is drought or flood, they may be unable to even maintain their previous output, let alone increase supply to respond to an increase in price. Then there is the issue of the months or years it might take to increase output of agricultural products to potentially increase their profits.

Some of the key determinants of supply include the following.

Level of technology

Technological advancement gives us new improved products, and also increases the speed and quality of production. It can lower the costs of production. Think of the current advances in relation to artificial intelligence, where human labour is being replaced in many areas by robots, or where algorithms in software programs are replacing the need for humans to make calculations and present data.

Costs

The costs associated with raw materials, production and financing all influence supply. Increasing wages raises production costs, and raising interest rates on borrowing mean greater loan repayments.

The availability of raw materials

Climatic conditions influence the availability of raw materials in the agricultural sector. Shortages of materials used in the production process, such as wheat for making flour, will force up prices, creating further price pressures on bakers, for instance, who use the flour to make bread.

Government policies

Policies regarding wages and taxes for instance, along with myriad regulations, like working hours and conditions, and zoning for land use, can have a significant impact on the costs for producers and the attractiveness or otherwise of economic activity.

Changes to the supply curve

A new supply curve will result from a change in many factors, including those mentioned above. Of course we must remember that a change in the price of the item being plotted will not give a new curve, but cause an expansion or contraction along the existing curve.

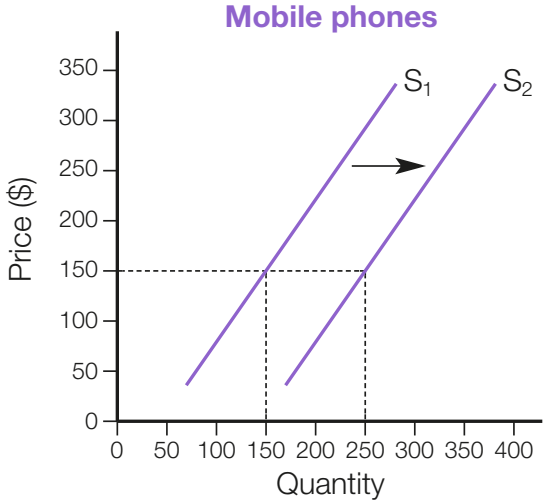


Figure 3.8: Increase in supply of mobile phones

You can see that at $150 producers were originally prepared to supply 150 phones. But if advances in technological processes lower the unit costs of production, producers would be willing to supply more at $150, as now more producers could make a profit at that price point. The supply would increase from 150 to 250.

Let's look at another scenario. What could be the potential impact of drought on supply? Widespread drought in Australia in 2019 cut farm production by 20%. Consider this graph (figure 3.9).

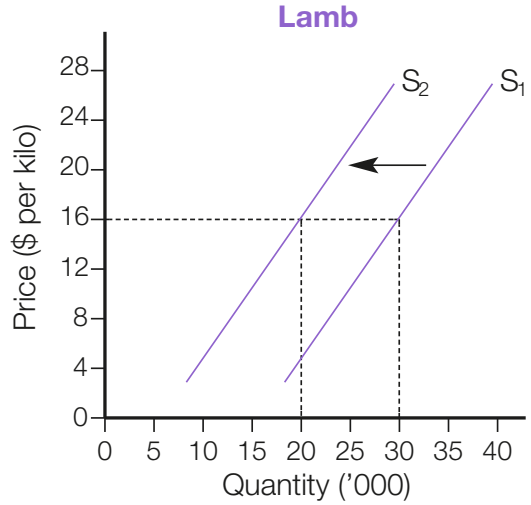


Figure 3.9: Decrease in supply of lamb

You can see that at a price of $16 per kilo, producers were originally willing to supply 30,000 kilos of lamb (S_1). With the drought, however, producers are now only willing and able to supply 20,000 at the same price. There is a decrease in supply.

The curve moves to the left. Producers are now willing to supply less than previously, even though the price is unchanged.

Activities

8. (a) Plot the following information onto a graph.

Supply of petrol per week	
Price ($)	**Quantity supplied ('000 litres)**
1.20	875
1.10	825
1.00	750
0.90	675
0.80	600
0.70	500
0.60	400

Note

Remember that price is always plotted on the vertical axis, and quantity on the horizontal axis. Label the curve that you draw S_1 (as S_2 is to follow).

(b) Now plot another supply curve on this graph to show the new supply position for petrol if the cost of crude oil falls and producers can provide another 100 litres at each price level. Label this curve S_2.

(c) Explain what has happened as a result of the decrease in the cost of crude oil.

(d) Consumers experience a shortage of bread in the shops. Give three suggestions as to what could cause a decrease in the supply of bread.

Activities

9. Answer the following multiple choice questions.

   (a) If the supply of bread is being plotted on a graph and there is an increase in the price of bread, the situation could result in:

   J an increase in supply

   K an expansion of supply

   L a decrease in supply

   M a contraction of supply.

   (b) An increase in the supply of 3D TV sets could be brought about by:

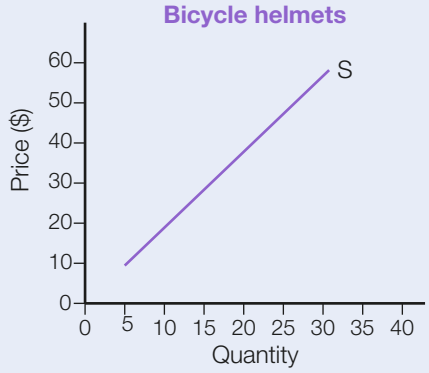
   J an increase in the cost of raw materials

   K an increase in the cost of imported components

   L an increase in telecommunication technology

   M an increase in government taxes.

10. Consider the graph below and answer the questions which follow.



   (a) How many bicycle helmets would be supplied if the price was $20? Show this combination on your graph.

   (b) How many helmets would be supplied if the price rose to $30?

   (c) What is the expression used to denote the effect of an increase in price of bicycle helmets?

   (d) Suggest a factor which could increase the supply of bicycle helmets.

Figure 3.10: Demand and supply determine the price in this market in Yangon, Myanmar. Bargaining is common.

Equilibrium

To this point we have considered both demand and supply in isolation, yet you will have probably already realised that the price we pay for goods and services is very much linked to the interaction between demand and supply.

If there is a shortage (where supply does not fulfil demand), prices will rise. And if there is a surplus (where supply outstrips the demand), the price will fall.

On the graph below (figure 3.11) you can see that at a price of $1.50, demand for Brekkybix is for 400 per week, and supply is also 400 per week. This is the equilibrium price and quantity for Brekkybix.

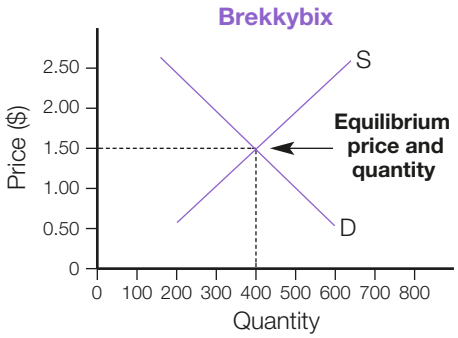


Figure 3.11: Demand and supply equilibrium

Helpful online resources

Before reading the material below, watch this short video explaining shortages and surpluses.

www.youtube.com/watch?v=QgUkjqMIaD8

Existence of a shortage

What if the price of Brekkybix were $1.00 a packet? You can see in figure 3.12 that the quantity demanded would be 500 per week, and the quantity supplied would be 300 per week. There is a shortage of 200 per week.

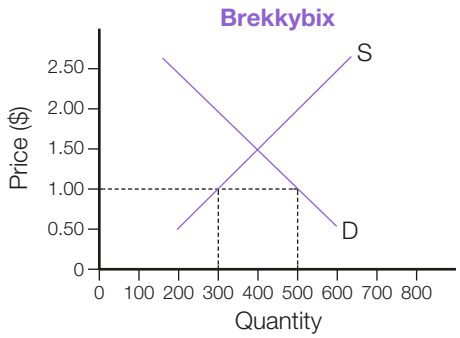


Figure 3.12: The situation creating a shortage

What will happen in this situation? Some consumers may love Brekkybix and will be willing to pay more than $1.00, so the price will be bid up. Sellers will raise their prices as they see the chance to maximise their income.

As the price rises there will be an **expansion (or extension) of supply and a contraction of demand** as movements along the existing curves result from a change in price of the item being plotted. You can see this in figure 3.13.

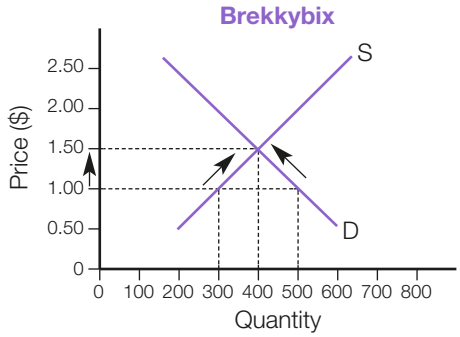


Figure 3.13: Extension of supply and contraction of demand

Suppliers will increase their price until the shortage has been eliminated, and when demand and supply are equal. As you can see in figure 3.13, this happens when the price reaches $1.50.

Existence of a surplus

If the price is above $1.50 a surplus will be created.

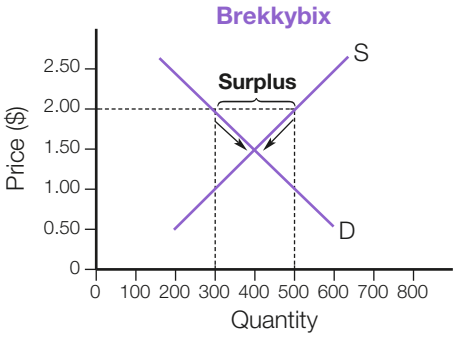


Figure 3.14: The situation creating a surplus

At $2.00, demand is for 300 packets per week, but supply is 500. A surplus of 200 exists.

Retailers need to make sales to earn income, so they will react to this situation by reducing the price, bringing about an **expansion (or extension) of demand and contraction in supply**.

The price will fall until the surplus units have been bought. This will occur at the equilibrium price of $1.50.

Changes in equilibrium price and quantity

A change in demand

What if Brekkybx runs a successful advertising campaign and consumer demand increases? This will create a new demand curve. The curve will move to the right, as more will be demanded at the same price as before. **Demand will increase.**

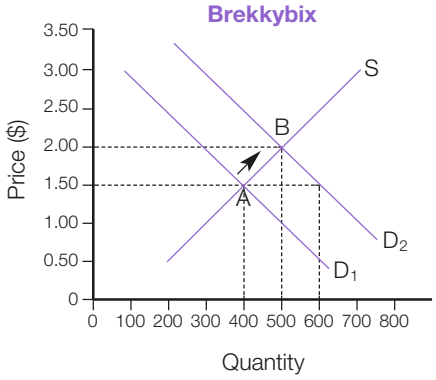


Figure 3.15: Effect of an increase in demand for Brekkybix

You can see now that at a price of $1.50, demand is now 600 per week at D_2, whereas at D_1 it was 400. But the supply is still 400 per week. A **shortage** of 200 exists. The price will rise until the shortage is eliminated, at the new equilibrium price of $2, where D_2 and S intersect. The new equilibrium quantity is 500 per week.

Demand for Brekkybix could decrease too. Perhaps it is discovered that this breakfast product is massively high in sugar content. Health-conscious consumers would turn away in droves, seeking a healthier alternative.

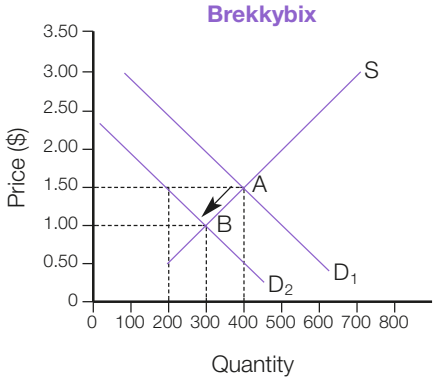


Figure 3.16: Effect of a decrease in demand for Brekkybix

You can see that at the original equilibrium price of $1.50, demand is now for 200 per week, whereas supply is still 400. **Demand has decreased**. A **surplus** of 200 exists. Producers will reduce their price to clear their stock. The price will fall to the new equilibrium position at $1.00, where D_2 and S intersect. The new equilibrium quantity is 300 packets of Brekkybix per week.

Activities

11. (a) Outline the meaning of the following terms in Economics :

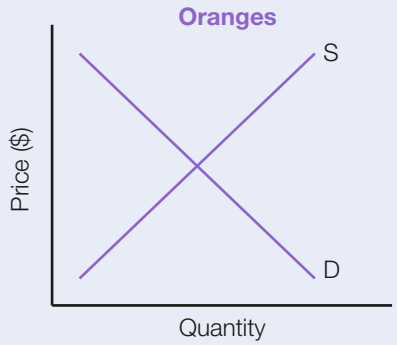
(i) Equilibrium price and quantity

(ii) Shortage

(iii) Surplus

12. Show the change on the model which will result from these scenarios. Include the original and new equilibrium positions and use arrows along your axes to help identify what will happen to price and quantity.

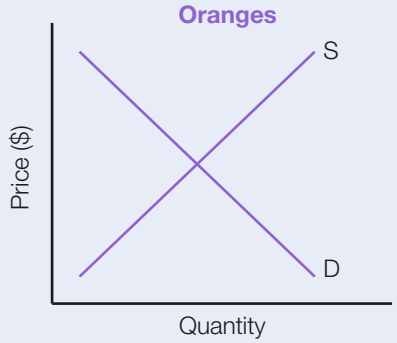
(a)



Oranges found to protect against heart disease

The price will ____ Quantity will ____

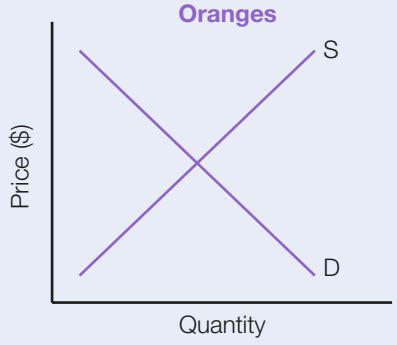
(b)



Insect-infested oranges found throughout supermarkets

The price will ____ Quantity will ____

(c)



The price of mandarins (an orange substitute), halves

The price will ____ Quantity will ____

A change in supply

Let us assume that there is an increase in supply of Brekkybix, perhaps because farmers supplying the grain used to make the cereal have an excellent harvest, and the price of the raw material falls. As the cost of production has fallen, the producers of Brekkybix may be able to supply more at the same price without impacting on their profit margins. There will be **an increase in supply**. This can be seen in figure 3.17.

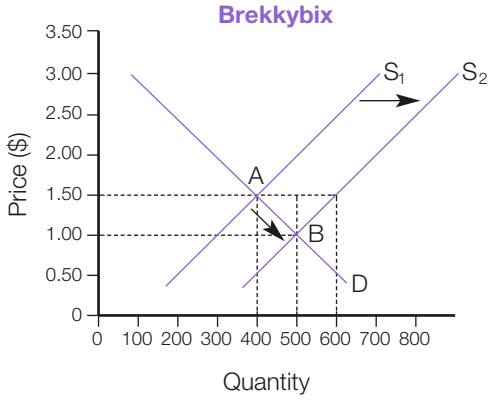


Figure 3.17: Effect of an increase in the supply of Brekkybix

Activities

13. Refer to the Brekkybix graph above to answer these questions.

(a) What is the original equilibrium price and quantity at point A?

(b) From point A, how many extra packets of Brekkybix are firms now willing to supply as a result of the increase in supply?

(c) What is the quantity demanded at point A?

(d) Does a surplus or a shortage exist after the increase in supply? And of how much?

(e) How will the market respond to this position? Will the price rise or fall?

(f) What is the new equilibrium price and quantity?

(g) Review the factors affecting supply. Suggest one factor, other than the one mentioned above, that could increase the supply of Brekkybix.

Wheat bran is the major raw material in Brekkybix. What if drought caused the price of wheat to double?

This would increase the costs of production for the makers of Brekkybix and they would be willing to supply less than previously at that same price. This is because their profit margins would fall (ceteris paribus). **Supply would decrease**. This can be seen in Figure 3.18 on the next page.

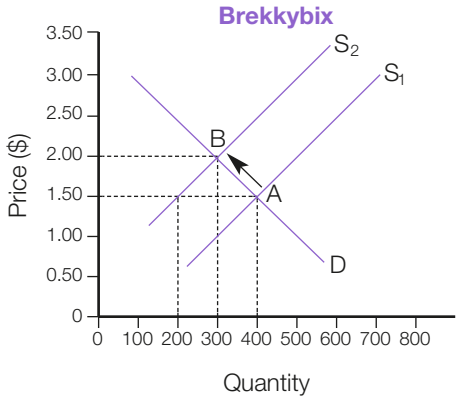


Figure 3.18: Effect of a decrease in supply of Brekkybix

Activities

14. (a) What is the original equilibrium price and quantity at point A?

(b) As output falls due to the drought, what is the supply now at that original equilibrium price?

(c) And what is **demand** after the wage rises at that original equilibrium price?

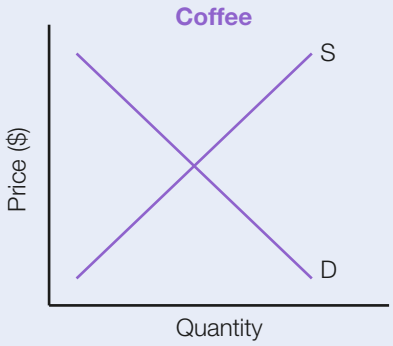
(d) Has a surplus or shortage been created?

(e) What will be the response of price to the situation you outlined above?

(f) As the price rises, will demand expand or contract? By how much?

(g) What is the new equilibrium price and quantity?

15. Brazil, the world's major coffee producer, announces that coffee bean output is expected to fall by 20% this year due to prolonged flooding. Show the likely impact on the curve.



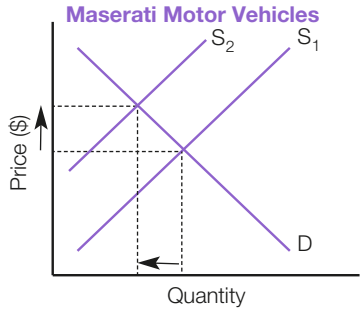
The price will Quantity will

Note

When you are trying to work out whether it is the demand or the supply curve which changes, ask yourself: What is **first** affected, demand or supply? This is generally the only curve which changes at this stage in your study. Refer back to major factors affecting demand and supply to help provide you with a focus.

A common mistake students make results from a situation such as the one that follows.

The government increases the sales tax on luxury vehicles.



Sales tax is first paid by the producer, thus there will be a decrease in supply, as shown.

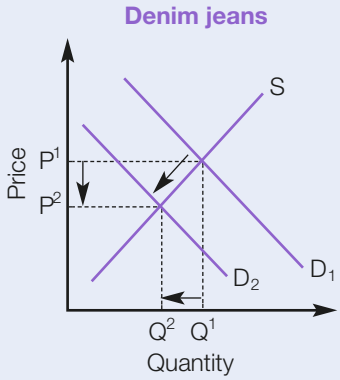
Students then want to say, 'So, demand will decrease too,' and want to show the demand curve shifting to the left. But look closely. As the price of the Maserati increases, there is a **contraction in the quantity demanded**, which has already appeared on your model when you decreased supply.

Overall you can see that the **price will increase** from the original equilibrium position. The **quantity demanded will contract and supply will decrease.**

Activities

16. (a) Show the effect of the follows scenarios on the demand and supply model.

The first one is provided to assist you.



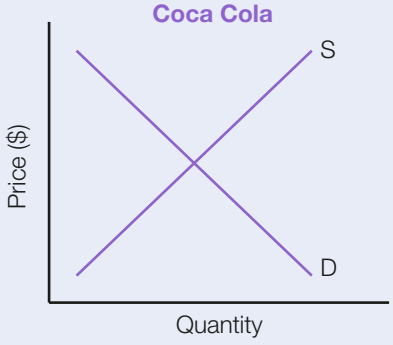
Denim jeans go out of fashion

As fashions change, consumer demand changes. In this scenario buyers are therefore less likely to want denim jeans. Demand will decrease, as shown.

You might ask the question: 'But won't suppliers cut supply too?' You can see from the graph that, as the price falls to the new equilibrium position with the decrease in demand, **supply is already contracting**. There is no change to the supply curve.

The overall impact seen on the graph above is that both the price and quantity will fall.

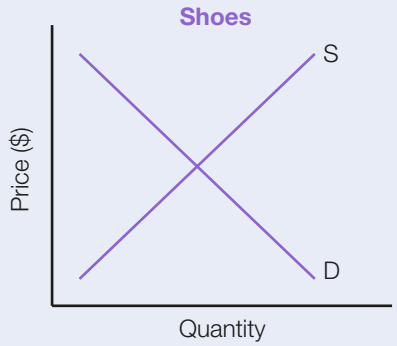
(b) Pepsi runs a highly successful advertising campaign. Show the impact of this situation on the graph for Coca Cola.



The price will _____ Quantity will _____

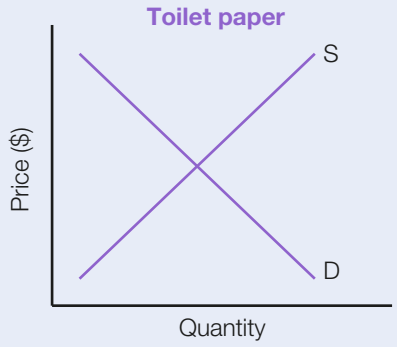
Activities

(c) The price of leather falls. Show the impact on a graph for shoes.



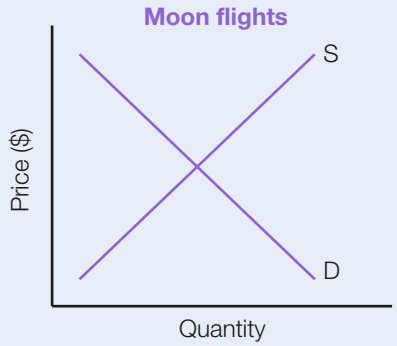
The price will _____ Quantity will _____

(d) Consumers feared potential lockdowns of supermarkets during the COVID-19 pandemic.



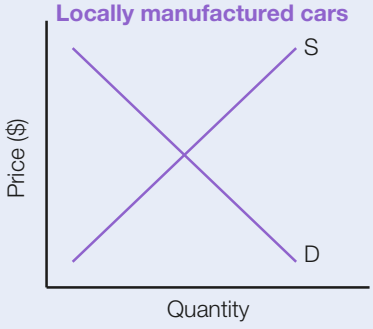
The price will _____ Quantity will _____

(e) Technological advances develop commercial flights to the moon. Show the impact on a graph for moon flights.



The price will _____ Quantity will _____

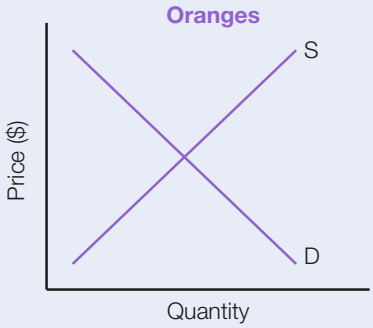
(f) The government abandons the tariff (tax) on imported cars. Show the impact on a graph for locally manufactured cars.



The price will _____ Quantity will _____

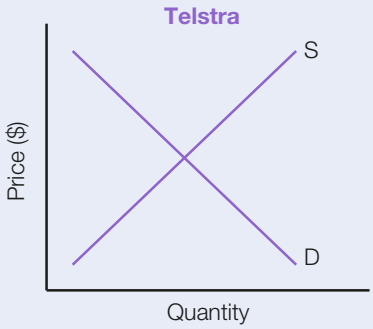
Activities

(g) The price of oranges increases. Show the impact on a graph for oranges.



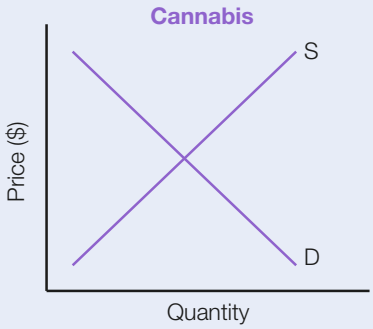
The price will _____ Quantity will _____

(h) Rumours spread that Telstra is about to announce a record profit. Show the impact on a graph for Telstra shares.



The price will _____ Quantity will _____

17. (a) In relation to the relaxation of cannabis laws in the USA, show the apparent impact of the changes on this model.



The price will _____ Quantity will _____

(b) What has happened to supply, based on what you showed on the graph in 17(a)? Explain your opinion.

Market failure

While demand and supply interact freely to create an equilibrium price and quantity, there are some problems which may emerge from this process which create social, economic or environmental costs. These include the issues outlined below.

Inequitable income distribution

You will see in the following chapter that one of the government's goals is to have an equitable distribution of income. But this may not occur if demand and supply is left to determine the price of labour – the wage or salary. Skills are valued differently in our society. Some movie or sports stars may earn millions of dollars for one movie or event, while others in society who work in an unskilled capacity, or are unable to work at all, may not accumulate anywhere near one million dollars in a lifetime.

Inadequate provision of collective wants

Firms respond to consumer demand if a profit can be made. Providing telecommunication coverage in an isolated country area is not likely to be profitable, and neither is a daily postal service. You may have experienced a cutback in bus or train services at night because of lack of patrons. Thus there are many services we expect in our high-income society that are not likely to be provided unless the government fulfils these societal wants.

Externalities

We have referred earlier to external costs and benefits of production (effects on groups other than the decision-maker). With profit being a major motivator of firms, it is possible that harmful effects may be felt from actions taken which have no financial cost to the producer. Think, for instance, of loss of species and habitats, urban crowding, increased water salinity, and climate change.

Abuse of market power

As firms grow, they may seek to take over competitors to increase the size of their markets and increase profitability further. If a situation exists where there is little competition, and no close substitutes, the firms may be able to exercise their power by raising their prices. This lack of competition creates what is known as a **concentrated** market. Consumers then will lose, and their standard of living may fall. It is illegal, for instance, for firms to work together to divide up a market or to decide between themselves to raise prices This is known as **collusion**. In Australia the Competition and Consumer Commission administers the Competition and Consumer Act, which prohibits abuse of market power.

Economic instability

While demand and supply, the price mechanism, allows the movement of prices to the equilibrium position, this may not be the best position for the economy.

For instance, if economic growth is very slow, stocks will build up as consumer spending (demand) slows. Firms will respond by reducing production and maybe putting off labour. So the demand for purchasing falls, and firms respond by decreasing their supply till a new equilibrium position is reached.

A major government goal is sustainable economic growth, so while the demand and supply may be in equilibrium, the economy could be functioning at a very low level of activity, with many job losses too. This is not a position that earns the government any popularity. What can be done to deal with such a situation is discussed in the next chapter.

Consumer exploitation

In the hunt for profits, some firms may take shortcuts, hide deficiencies, provide poor-quality goods or services, or take advantage of consumers in some other way. Of course most firms abide by the law, but some will not. Consumer Affairs departments exist in each Australian state to protect consumers' rights.

A task relating to possible responses to market failure appears in the next chapter.

Chapter 4: Government involvement in the economy

SACE Subject Outline – Summary

Students develop an understanding of how governments act to modify market outcomes.

They consider the following interventions: resource allocation, redistribution of income, government regulation and economic stabilisation.

The circular flow model is investigated.

We have referred to the economic problem earlier: our economic wants are unlimited, but we have finite resources with which to fulfil those needs. Each economic system needs to decide what its resources will be used for, the method by which goods and services are to be produced, and who will be the recipients of that production. In other words, significant choices must be made throughout the world, at consumer, firm and government levels.

In most of the world today, government intervention in the economy is far less than it was in many countries during the 20th century. For historical reasons, let us consider two extremes: the command economy and the market economy. These can be compared with reference to the following table.

Table 4.1 Different approaches to economic problems – market vs planned economies

Link to the economic problem	Market economy (Capitalism)	Planned economy (Command economy)
Resource allocation ('What' to produce); resources in this context are anything which can be used to satisfy our wants	Decided by consumers casting '$ votes', consumer sovereignty	Decided by the government directly or one of its agencies. Depends on government priorities – may be military
Method of production ('How' to produce), using land, labour, capital and/or enterprise	Determined by firms based on the method that will earn the greatest profit	Depends on government priorities – for instance, may preference jobs over maximising output with capital
Recipient of production (the output is 'For Whom'?)	Those with the greatest incomes receive the greatest share	Theoretically those in most need receive the greatest share – but corruption may lead to those in power gaining the most benefit

The market economy

In the market economy, the emphasis is on individual decision-making. Businesses respond to consumer demand and operate in the market with profit-making as a major motivator, and the wealthiest have the largest share of the goods and services produced.

In reality there is no pure market economy. The government passes laws for a range of reasons, including social cohesion and public health. Hence there are laws against starting up a private army or producing heroin. These laws will affect the 'What' to produce question.

In relation to the methods of production (the 'How' economic question), without laws protecting the environment or safeguarding school-age children becoming a source of cheap labour for instance, businesses may let their desire for profit create significant social and environmental costs.

Then there is the question of 'For Whom'? Without government intervention, those without skills in demand, or those with significant health issues, may receive no income and fall into poverty. Through features such as a minimum wage, and taxation benefits for many families, the extremes of poverty can be avoided.

So, the market economy should be more accurately called a **mixed market economy** because all countries have some degree of government involvement.

Governments also realised during the lockdowns associated with the COVID-19 pandemic, that allowing the market to operate with minimal intervention led to significant problem in such a crisis. Shortages of many crucial raw materials were created, along with the disappearance of many consumer goods from supermarket shelves. This issue, and governments response to it, will be considered further in the next chapter.

Activities

1. Outline the concept of "The invisible Hand".

Helpful online resources

The brief '60 Second Adventures in Economics' (YouTube) introduces you to the market economy.

https://youtu.be/ulyVXa-u4wE?si=2ZH_bjWKVW2kaKz

2. (a) Watch the following video clip on reasons for government involvement in the economy. Summarise the major points.

Helpful online resources

Watch this YouTube clip. Its length is just over 9 minutes.

www.youtube.com/watch?v=6yLY06tTQ1A

(b) Choose one of these points and suggest a benefit and a cost for that policy or action.

4

Reasons for the shift from the command economy

As for the command economy, today there are very few countries that adopt the rigidity of that economic system, which was adopted by many communist countries in the early days of the 20th century. With the widespread collapse of communism in the 1980s and '90s, countries such as Russia, Poland, Bulgaria and Tajikistan turned towards the market economic model. Why did this happen?

The economic development of the countries using the command system fell significantly behind those in many market economies. Resources were largely owned by the state. Shortages and surpluses were common, as resources were often wasted via the production of goods or services for which there was little demand. On the other hand, shortages for basic commodities were common, as economic plans were set often over a five-year timeframe, with little flexibility within that period to respond to demand and supply. Wages were low, with few incentives for employees to improve their productivity. Corruption was rife, as was poverty. The needs of the state were paramount over the needs of the individual, and priority was often given to the military or other goals, such as developing space programs in Russia, rather than to consumer goods and services.

Helpful online resources

Watch this 7 minute long YouTube clip about changes that occurred in Poland in the 1980s, and summarise the reasons below.

www.youtube.com/watch?v=nkvSI4XPCcU

The shift to the market economy was not without its own problems. The 'job for life' policy under the old system was replaced by individual ownership and the profit motive, with widespread unemployment created as labour costs were reined in.

Prices for basics had been set at very low levels under the command economy, but with the shift to the market economy and demand and supply determining price, inflation often sky-rocketed.

In 25 countries that had been functioning under the command economic system in the 20th century, their economic growth actually initially fell with the adoption of the mixed market system. Poverty increased.

The success of economies in transition

Countries which prospered were those with governments that made difficult decisions, for instance, strengthening their legal and financial systems, tackling corruption, privatising (selling) state-owned enterprises, taking strong economic measures to tackle inflation, reducing trade barriers, and encouraging foreign investment into the country.

Helpful online resources

Read this useful summary of the plight of many economies which transitioned out of the centrally-planned economic model.

www.economicsonline.co.uk/Competitive_markets/Transition_economies.html

Activities

3. Outline the meaning of the following term in Economics:

   (a) Consumer sovereignty

   (b) Capitalism

4. Answer the following multiple choice questions.

   (a) A feature of a market economy is that:

   J most resources are owned by the state
   K the method of production used is the one which provides most employment
   L the profit-motive dominates producers' decision-making
   M everyone can buy whatever they want

   (b) The 'What' to produce question is answered in a market economy by:

   J suppliers choosing the cheapest method
   K suppliers responding to consumer demand
   L suppliers producing their traditional output
   M suppliers producing what the government requests

   (c) Which of the following is not true in relation to a command economy?

   J prices of goods and services are set by the government
   K distribution of goods and services depends on income
   L resource ownership is largely in the hands of government
   M the 'How' to produce question is answered according to the state's priorities

   (d) Countries which adapted best to the market economy were ones where their government:

   J encouraged trade partnerships with other countries
   K increased tariffs
   L discouraged consumer sovereignty
   M cut wages to encourage more employment

Activities

5. (a) Consider ethical issues arising from the following statement: 'Producers use the most cost-effective methods to maximise profits.'

   What about quality? And quantity? Have you noticed the trend to sell an item in the same sized container as usual, and at the same price, but with fewer contents? Write down your thoughts and include examples.

   (b) Record any instance where you feel you may have been misled by a producer. Share your findings.

   (c) Would the situations you discussed be common in a command economy? Why?

   (d) Investigate the concept of 'caveat emptor'. Debate costs and benefits involved in increasing laws to avoid situations which you have raised throughout question 4.

6. Inquiry

   Investigate the experiences of a country, which in the last few decades has changed, or is changing, its economic system to that of a mixed market economy. Examples you might like to consider include Russia, Lithuania, Kyrgyzstan, Armenia, Georgia, Hungary, Poland, Vietnam, China and Romania.

   The suggested outline may help you build a comprehensive picture.

   - Economic indicators from the 20th century which provided evidence for the need for economic change.
   - Economy in transition – the changing role of government and moves made towards adoption of the market economic system.
   - Short-term and long-term costs and benefits of the changes.
   - Recent economic indicators and comparison with those recorded above under the command system which help measure the success of the transition.
   - Your reasoned view of the success of the transition.

Ways in which government actions influence market outcomes

As stated earlier, there is no pure market economy. There a number of key reasons for the government involving itself in an economy and since the COVID-19 pandemic there have been many examples of governments taking direct action to protect their own economies. Examples follow.

The allocation of resources

The government provides goods and services which otherwise may not be provided by the private sector due to a lack of profit motive. Examples include country roads, street lighting, libraries and schools in isolated areas.

In the last few decades the Australian Government has sold a number of major public assets, such as the Commonwealth Bank, Telstra and Qantas. The sale of public sector assets into the private sector is known as **privatisation**. These days you or your family may be part-owners of these companies through the purchase of their shares on the stock market. While privatisation can raise millions of dollars for the government to use, such as repayment of government debt, it is not without its critics. After all, once the asset is sold, any profits from that activity will now go to shareholders rather than the government.

The government's allocation of resources relates to the 'What' economic question, and involves the provision of collective, or community, wants. Major Australian projects, such as the Snowy Hydro 2.0 (to be one of the largest pumped hydro-water schemes in the world, costing over $2 billion), are usually announced in the annual Budget, when the government announces its plans for the year ahead. Over $300 billion in government support packages for individuals and firms were announced in relation to the COVID-19 pandemic.

Creating a more equitable society

During the Great Depression of the early 1930s, laws were passed to ease the poverty of the unemployed (which reached 30% in Australia) by means of social service benefits.

Where does the government get the money to assist those in need? Of course, the major source of income for the government is taxes, with income tax paid by employees being responsible for approximately 50% of the total. Governments are also able to raise money other ways, for example through the issuing of government bonds.

Australia has a progressive tax system, redistributing income by taxing the rich proportionally more than the poor, and assisting those in need through payments for the unemployed, aged, many families with children, people with disabilities, and the elderly. About 30% of the Australian Government's total spending each year is on social welfare. You could see the progressive income tax system in action back in Activity 8 (a) on page 11.

Government regulations

Laws are passed that are aimed at improving the market, which serves the public interest. Laws are passed, for instance, concerning environmental issues, working conditions, trade practices, building construction, health and safety, and consumer protection where it is felt that social costs of the provision of a good or service would outweigh social benefits. In relation to issues such as prostitution, road safety and the production of various opioids, laws are made which are considered to be a benefit to society as a whole.

Economic stabilisation

The government wants to avoid peaks ('booms') and troughs ('busts'), which have occurred at various times throughout our past. These are periods when the economy is either operating at very strong or very weak levels of economic activity.

While 'booms' can create benefits, such as strong job growth, significant problems may also occur. If excessive demand occurs, with falling unemployment and strong consumer confidence, shortages are created, and there may be an increase in the general level of prices, known as inflation.

In a severe slow-down, the economy may experience a trough, with unemployment rising and consumer spending slowing. A recession may occur, characterised by at least two consecutive quarters of negative economic growth. The COVID-19 pandemic which started in Australia in the March quarter of 2020, plunged the country into recession as unemployment sky-rocketed with lockdowns, social distancing restrictions and supply chain interruptions.

You can see that peaks and troughs are best avoided. To slow economic activity, the federal government may raise income taxes, thus employees will have less money for discretionary spending. The Reserve Bank, implementing monetary policy on behalf of the federal government, may cut the cash rate when the economy is not performing well, because if this flows through the financial system, lower interest rates make borrowing cheaper and more attractive for firms and consumers, helping increase economic activity.

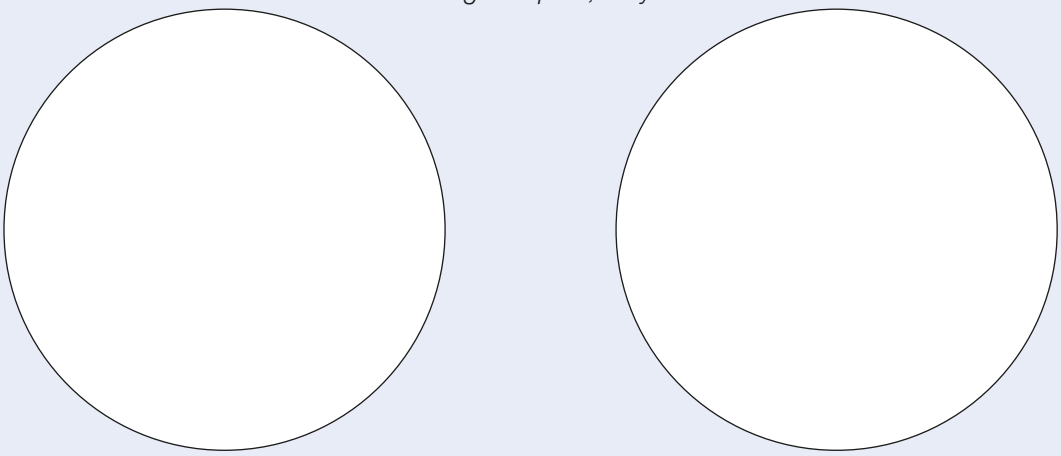
Activities

7. Using the information provided below, construct two pie charts that show the planned revenue for Australia in 2022–23. You will need to calculate the percentage of the total for each item to successfully construct your pie charts. Space is provided to help you organise this.

Comparison of Federal government expected revenue, Australia, 2022–23, with figures you provide for the most recent year.

Source	Amount ($ billion)	%	Most recent year's Budget. Amount ($, billion)	%
Individuals income tax	224.9			
Company & resource rent tax	85.3			
Sales taxes	75.9			
Non-tax revenue	39.6			
Fuels excise	20.9			
Customs duty	18.4			
Superannuation taxes	15.3			
Other taxes	8.3			
Fringe benefits tax	4.1			
Other excise	3.9			
Total	**496.6**	**100**		

Source: Budget Papers, May 2022–23



(a) (i) The annual Budget data is generally produced in pie chart form. What could be an advantage of that format showing percentages, over a bar graph which shows raw totals?

(ii) It was revealed that the actual revenue received in 2022–23 was over $14 billion more than expected. What might have happened in that period to account for that?

(iii) Customs duty (tax on imports) earned the federal government significantly less income than expected in 2019–20. Suggest why this may have been so.

Activities

(b) (i) There are probably taxes mentioned in this list which are new to you. Investigate two of these taxes, and share what you find with your peers. This will help you build up a comprehensive picture of these major tax contributors to federal government revenue.

(ii) What would be the major sources of 'non-tax revenue'?

(c) (i) 'I thought alcohol was taxed heavily in Australia,' your friend says. Research this matter. Look into several key features of the tax on alcohol, and find the income heading under which it would appear.

(ii) Investigate the current rate of fuel excise on unleaded petrol in Australia. What approximate percentage does this tax take out of a litre of unleaded petrol today? Imagine that you are the nation's Treasurer. Justify this tax burden to an angry caller on talkback radio, who is complaining about this extra burden on their household budget.

(iii) The Treasurer then receives another question from a caller:

'Isn't the goods and services tax a major source of income for the federal government? Why isn't GST in the table? Is something dodgy going on here?'

Explain to the caller why the GST does not appear in the table. (Hint: You may need to investigate who is the recipient of the goods and services tax revenue.)

Activities

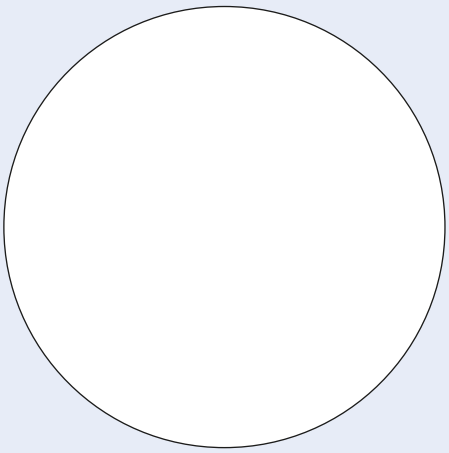
(d) Is Australia a heavily taxed country? Do a web search (try nationmaster.com) and compare taxes paid by the average citizen in Australia compared with that of the USA, Hong Kong, Sweden and India, or another country of your choice.

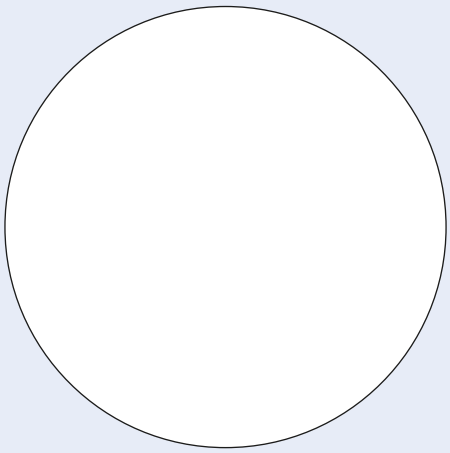
Suggest several reasons for the variations in tax levels which exist between the highest and lowest taxed countries.

8. Now construct two pie charts for Australia.

Comparison of Federal government expected expenditure, Australia, 2022–23, with the most recent year.

Source	Amount ($ billion)	%	Most recent year's Budget. Amount ($, billion)	%
Social security	121.9			
Health	59.8			
Education	29.9			
Defence	21.3			
General public services	96.8			
Industry and workforce	14.9			
Community services and culture	8.0			
Infrastructure, transport and energy	13.2			
Total	**365.8**	**100**		





(a) Look back at your notes regarding the reasons for government intervention in the economy. Link two of those reasons with categories referred to in your pie chart, stating why the government would prioritise that spending.

Activities

(b) Compare Australia's share of total spending on health, education or defence with that of the USA. Suggest reasons for any significant differences in the two countries' spending on those particular categories.

(c) Calculate the difference between projected income and expenditure over the 2022–23 fiscal year. Was the government predicting a Budget surplus or deficit? What was the actual outcome?

(i) In 2019-20, government expenditure increased by nearly $60 billion above the projections. Which major category do you think contributed most to this? Why?

(d) Consider the pie charts for the most recent Budget year. Is there any significant change in the government's anticipated revenue or expenditure compared with 2022–23? Deficit or surplus? Suggest possible reasons for any significant changes.

Sometimes different political parties have different priorities, and you may notice this if there is a change in government, for instance. But changes in the economy or military upheaval are among other unpredictable factors that can cause changes in priorities, too.

9. Undertake a media search and find an appropriate article for each of the major reasons for government intervention in the economy, referred to earlier. Link the article with the particular government intervention and briefly explain your choice. Your reasoning is important as some articles may be appropriate in relation to more than one government role. An example is provided.

Headline	Role of government	Reason
Skating and scooting illegal in SA on roads with a dividing line or median strip.	Regulation	Road safety: benefits society as a whole.

The circular flow model

This is another theoretical model we use to try and simplify a complex world. It shows how the various sectors of the economy interact.

We start with a simple, two-sector model of the economy, based on the following assumptions:

- Households own the productive resources, land, labour, capital and enterprise.
- Firms make the finished goods and services and sell them to households (consumers).

We can show this as a flowchart.

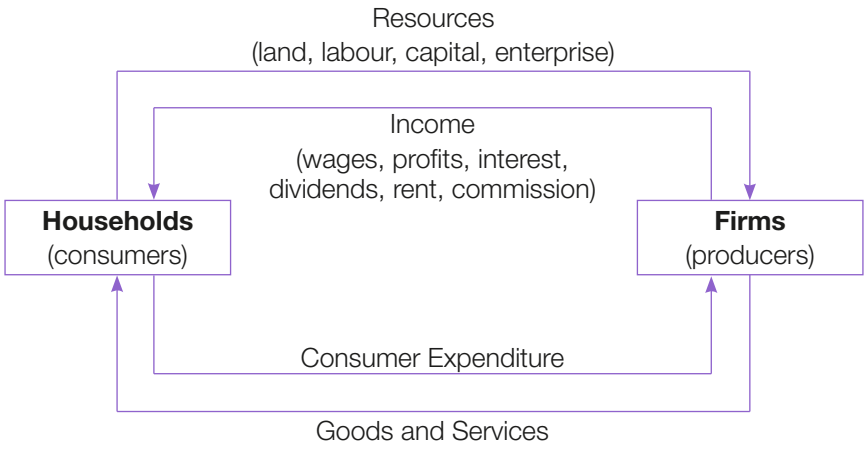


Figure 4.1: The two-sector circular flow model

You will realise very quickly that this model does not work in reality. In our chart, all income received by households is spent on goods and services. There are no savings.

What happens to most households savings? The money is usually saved in financial institutions, which lend the money to firms who largely return it into the circular flow.

We can see these new flows in the model below.

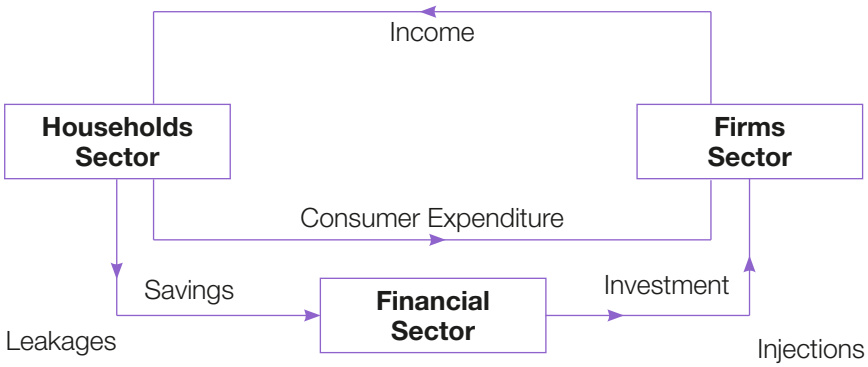


Figure 4.2: The three-sector circular flow model

You can see that savings is a **leakage** out, and investment is called an **injection** back in to the circular flow.

In Economics you have already encountered some terms which we use in slightly different ways from common usage. We define savings as **deferred consumption**, meaning that households save to spend at a later date. Key factors influencing savings include level of income, interest rates, people's attitudes to savings and spending, and levels of confidence about the economic future.

Note that the factors mentioned above for savings also relate to consumption. Think about it. What determines your own spending? The level of income would be a key point for most students, just as it is regarding savings.

Investment also needs discussion. In the theory of Economics, investment is carried out by firms, who may do this through the creation of capital goods, for instance buying new premises or new machinery, expanding into another state, or taking over a competitor. Producing more stock to sell at a later date is also considered investment.

Factors affecting investment include the likelihood of profits, interest rates, government policies (for instance in relation to taxes and wages), and confidence in the economic future of the country.

The practice of putting your money into the bank to earn interest is not considered investment in an economic sense. It would be known as savings, as you are deferring your current consumption by depositing your surplus funds in a bank.

Figure 4.3: Transnational companies such as Heineken beer would not be a establishing business in Hanoi, Vietnam, without strong confidence regarding Vietnam's economic future.

Activities

10. Why do people save?

11. Answer the following multiple choice question.

    Which of the following is an example of investment?

    J Taylor Swift buying $5000 worth of BHP shares

    K Ariana Grande burying $200 in a tin in the garden

    L Lady Gaga building a new recording studio

    M Snoop Dogg purchasing a ten-carat diamond earring.

12. Outline five factors affecting consumption, in each case providing an example to show that you can apply the point.

Activities

13. Identify the following situations as involving predominantly consumption (C), investment (I) or savings (S). Remember to think of the economic meanings of these terms.

    (a) Joe buys a block of land to sell at a profit and take a trip overseas.

    (b) Anna puts her weekly wages into her bank account.

    (c) Honda starts a new eight-hour shift in Tokyo.

    (d) Briony's Boutique takes over Daggy Dresses.

    (e) Larry Legless buys two cartons of Crown Lager.

    (f) Telstra puts in new cabling under the Tasman Sea.

    (g) Your dad's business, Merv's Mechanics, records a payment of $1,000 for a meal for his workers to help improve staff morale.

14. Identify the following statements as being either True or False.

    Remember to think like an economist!

(a)	Households invest and firms consume.	True	False
(b)	Investment is a leakage from the circular flow.	True	False
(c)	In a three-sector circular flow model income not spent is saved.	True	False
(d)	High interest rates encourage investment.	True	False
(e)	Households save to make a profit.	True	False
(f)	Households sell their resources to firms.	True	False
(g)	Income can only be used to buy goods.	True	False
(h)	Households buying shares on the stock market is investment.	True	False
(i)	Consumption is the using up of goods and services.	True	False
(j)	Consumption spending could decline when confidence falls.	True	False

Now government can be added to our model, as government has a significant role to play in the flow of finance, in particular through the circular flow.

You know that when consumers receive income, savings is not the only leakage that hinders their spending. Another key factor is **taxation**. We could see from the pie charts drawn earlier in this section that the revenue the government receives flows back into the economy through government spending for the fulfilment of collective wants. There is **interdependence** between the sectors in the economy, which facilitates the growth of the market economy.

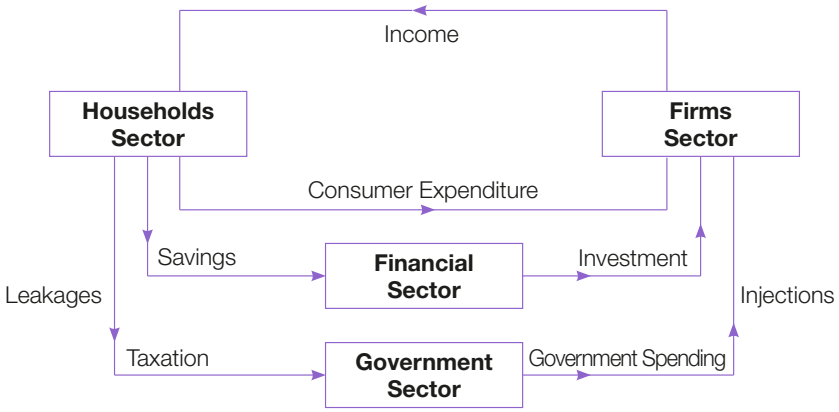


Figure 4.4: The four-sector circular flow model.

Note that we have excluded the flow of resources and goods and services between households and firms as we are simply showing the money flows in this extended model.

What affects government spending? We have provided major reasons for the government's involvement in the economy. To revise, these are to allocate resources, to stabilise the economy, to make changes to regulations to protect vulnerable groups and the environment, for instance, and to create a more equitable society. Government's action to stabilise the economy through its own spending and revenue plans is knows as **fiscal policy**.

There are other factors which can play a part in kickstarting spending, for example nearness to an election. New school buildings may be built to encourage citizens to vote for a particular party. And, after the election, if promises have been made, for instance regarding tax cuts, fulfilling that promise may be a focus in relation to spending.

Activities

Inquiries

15. (a) Investigate the economic policies of John Maynard Keynes, who played a key role in bringing the Great Depression to an end in some major countries. What did he do? Did his policies influence the USA and Australia? Were they successful? What happened in the second half of the 20th century which led to his policies being viewed less favourably?

(b) Investigate two major economic policy measures taken by the Australian Government during the COVID-19 pandemic. Did they have the desired effect? Provide evidence for your opinion.

We have considered the major groups in our domestic economy, households, firms and the government, but have yet to consider the overseas sector. The models we have shown so far relate to a 'closed' economy, with no international dealings, but we know that that is not the case in our globalised world. In Australia alone about 20% of our annual production is sold to the overseas market, with major money-earners being minerals, education and tourism.

In the example below, we simplify our payments (leakages) of money for overseas transactions under the heading of **imports**, and the earning of money, which is injected back into the economy, as **exports**. This can be shown in our five-sector, also called the full-sector circular flow model.

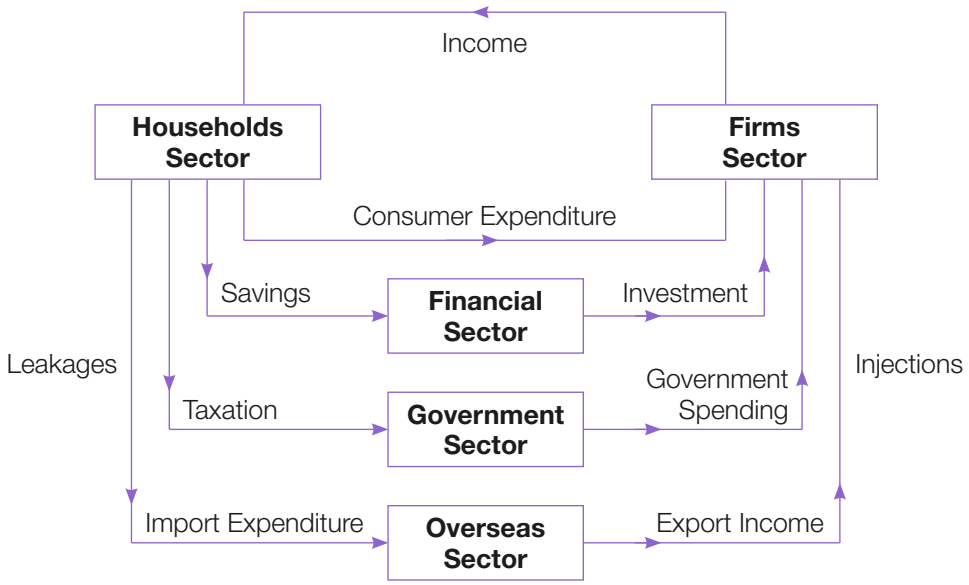


Figure 4.5: The full-sector circular flow model.

Export earnings can be influenced by factors such as the exchange rate, the state of our trading partners' economies, world commodity prices and free trade agreements. If China's economy slows, its firms are less likely to buy as much Australian iron ore or coal for their manufacturing production, so our export income could be significantly reduced.

The exchange rate can also influence our purchase of imports. If our exchange rate **depreciates** (falls), it costs more to buy imports. However, on the other hand, our weaker exchange rate will make our exports more attractive to foreign buyers.

Whether there are local substitutes will also affect imports, because, for instance, it is no longer possible to buy an Australian-made car. Consumer preferences and the state of the domestic economy are also relevant. If job growth is strong, for instance, we are likely to be confident about our economic circumstances and spend more freely. Spending on imports is likely to increase too, along with spending on local goods and services.

In measuring economic growth in an economy we must include spending on all sectors of the economy, households who consume (C), firms who invest (I), Government spending (G), and exports minus imports (X – M). The total arrived at is called **gross domestic product** and is a major economic indicator for all countries. You can see its relationship with Figure 4.5.

Figure 4.6: The interaction between households and firms, as shown in the flowchart in Figure 4.5, are evident in this market in a village in Myanmar.

Activities

16. Match the statements in the first column with the possibilities in the second column and put the correct term in the third column. The first one is done for you.

Statement	Possible terms	Correct term
(a) The sale of domestically produced goods on the international market	Leakage	Exports
(b) The leakage to the government sector	Investment	
(c) The sector responsible for consumption	Consumption	
(d) Deferred consumption	Government	
(e) Money flows back into the economy	Resources	
(f) The creation of capital goods	Imports	
(g) The using up of goods and services	Firms	
(h) The public sector	Taxation	
(i) Sector including savings and investment	Savings	
(j) The purchase of goods made overseas	Households	
(k) Land, labour, capital and enterprise	Injections	
(l) The provider of income to households	Financial	

17. Show how the following occurrences are likely to affect overseas demand for our exports, or our demand for imports.

(a) The value of the Australian dollar appreciates. Buyers of Australian wool are affected.

(b) There is a 10% p.a. increase in wages in Australia.

(c) China experiences an economic slump. Steel production in China halves.

(d) Porsche and BMW release new cars aimed at middle-income earners.

(e) Inflation in Australia doubles. Buyers of our exports respond.

(f) Another global financial crisis occurs.

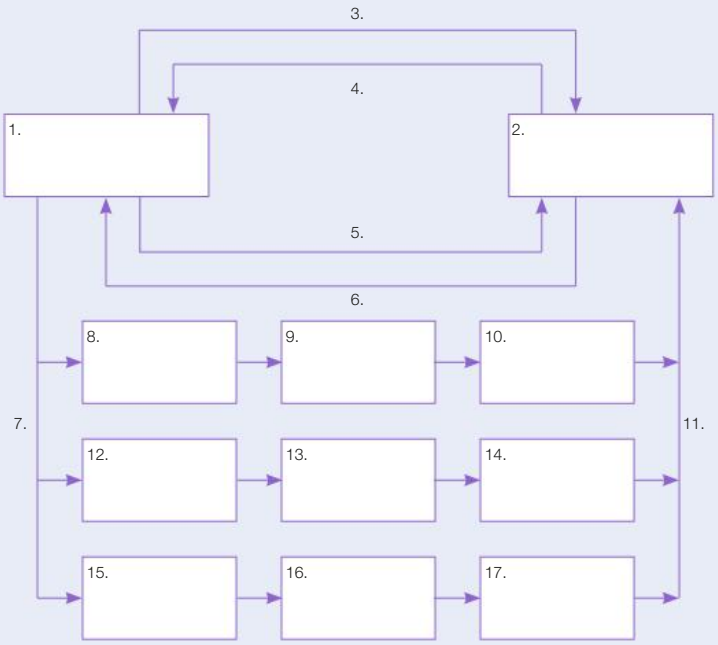
(g) In 2024 China removed large tariffs imposed three years earlier on Australian wine exports.

Activities

18. Putting it all together – revision which displays our interdependence.

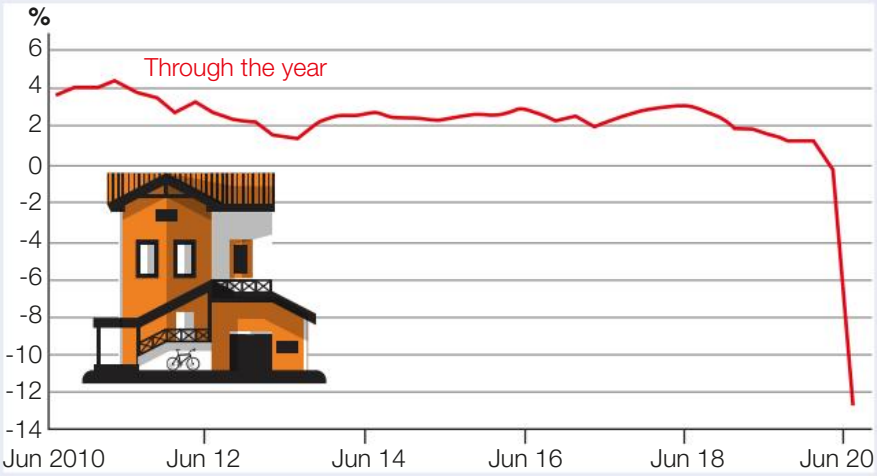
Complete the circular flow model below by writing the appropriate description where the numbers appear.

Business sector	Government spending	Resources
Consumption expenditure	Household sector	Savings
Export income	Import spending	Taxation
Financial sector	Income	Total injection of funds
Goods and services	Investment	Total leakages of funds
Government sector	Overseas sector	



The full-sector circular flow model

19. Household spending collapses (Source - Treasury)



The original headline appearing above this graph read 'Economy goes backwards'. Using your knowledge of the circular flow, what argument could you make regarding that statement.

Chapter 5: Trade in a global economy

SACE Subject Outline – Summary

Students develop an understanding of arguments for and against the free trade of goods and services between nations. They explore the concept of specialisation and interdependence.

Students use comparative advantage to explore the costs and benefits involved when individuals and nations specialise. They analyse trade protection strategies used to achieve economic outcomes.

Trade has occurred between nations for thousands of years because the distribution of resources differs around the globe. Australia is rich in coal and iron ore, for instance, while the Amazon rainforest is rich in timber. Geographic and climatic factors play a part, too, as while Brazil's climate suits the growing of coffee, Switzerland's mild temperatures and mountain pastures are suited to the grazing of dairy cattle. It is also generally considered unreasonable to expect a country to produce all the goods and services its citizens may require, and thus trade widens the choice available to consumers.

Within countries there is trade, too, of course. Australia's Indigenous people have been trading natural resources for thousands of years, setting up trading routes which criss-crossed Australia. The mining of ochre deposits was particularly important, as the substance was used for ceremonial body painting and recording culture in rock paintings.

Protection

Some countries put barriers in place to protect local industries. Protection is aimed at giving the domestic industry an artificial advantage over foreign competitors. In the early years of the 21st century, the free market economic model reigned under the concept of globalisation which is explained further in this chapter.

Some of the common forms of protection are described below.

Tariffs

A tariff is a tax on imports. Tariffs have been extensively used in Australia. In the mid 1980s, the tax on imported motor vehicles was 55%, and Australian-made vehicles supplied 90% of the domestic market. The local industry was unable to compete profitably when tariffs were steadily reduced from the 1980s, and today no motor vehicles are made in Australia.

Tariffs provided significant revenue for the government and increased the local producers market share, but consumers were forced to pay more for the imported product.

Quotas

A quota is a physical limit placed on the number of goods that may enter a country. Quotas no longer have a part to play in Australia's trade with other countries, but they could help prevent the dumping of cheap foreign surpluses on our shores. Dumping drives down local competitors' prices.

Embargoes and sanctions

An embargo is a total ban against a country's trade, and is used for political, social or environmental purposes. Many countries had embargoes with South Africa when it used the policy of apartheid, which involved the segregation of black and white races. Both the economy and the citizens suffered during this time, and the pressure applied by the ban contributed to the lifting of apartheid in the early 1990s.

A sanction is a form of embargo, generally targeting specific commodities. For example, The war between Russia and Ukraine in the 2020's resulted in Australia imposing sanctions on Russia and its ally, Belarus. The International Olympic Committee imposed sanctions on athletes from Russia and Belarus, preventing them from competing under the name of their country in the 2024 Olympic Games. Sanctions exist against North Korea regarding the components needed in the manufacture of nuclear weapons.

Subsidies

A subsidy is a payment made directly or indirectly to a local producer. This increases their income and enables them to sell their products on the world market at a lower price, thus disadvantaging countries that do not use subsidies. The Australian Government tends to assist farmers and other targeted groups through tax relief rather than direct payments.

Subsidies are not always used for economic purposes. Social factors can play a part. Adelaide students receive subsidies indirectly through their Metrocards, with which they can travel on public transport at reduced prices. Similarly, university fees for Australian citizens are heavily subsidised by the federal government, and the student pays the remainder through their HELP debt.

Local design rules

Insisting on changes to imported goods before they can be sold on the local market increases the cost of the items, and may make it uneconomic to sell locally. In Australia, standards must be adhered to, such as vehicle pollution controls, brake systems and seatbelt specifications.

Local content specifications

Some imports must include a minimum percentage of local content. For example, in relation to free-to-air TV, at least 55% of a channel's programming in the 6am to midnight timeslots must be local programs. This is to ensure the continuation of jobs in the local industry, and to fight against the loss of Australian culture that could occur with the dominance of imported foreign programs.

Quarantine restrictions

Isolating plants or animals when they arrive in a country protects local industries against diseases such as rabies and mad-cow disease, but adds to costs for importers.

For instance, if a dog or cat is brought into Australia by its immigrating owners, there is a mandatory minimum quarantine period of 10 days, which will cost the owner at least $2000.

There are restrictions even between states relating to vegetable matter, too, with sniffer-dogs operating at airports to check the luggage of arrivals. Within South Australia there are prohibitions against bringing certain fruit and vegetables into the regions adjacent to the River Murray, in case of exposure of pests and diseases to the state's citrus fruit industry.

Taxation concessions

Taxation concessions act in a similar way to subsidies, making the local industry more attractive.

Australia supports the local film industry by offering tax concessions to potential investors in some productions.

Activities

1. (a) Use arrows to connect the term in the first column with the description in the second column. An example is provided.

Term	Description
Quota	Financial benefit derived by primary producers for environmental land-care projects.
Quarantine restrictions	All new passenger vehicles sold in Australia must be fitted with air bags.
Local design rules	Under the Australia/USA free trade agreement, limits were imposed on the export of Australian beef until 2023 (This has now been lifted).
Embargo	Prohibition on any flyer bringing plant or food matter into Adelaide airport.
Tariff	The tender to provide South Australia's $300 million bus project required 15% Australian provision of parts (e.g. windscreen wipers)
Subsidy	The import of a car with a value of approximately $70,000 or more attracts a 33% tax in Australia.
Local content specification	The USA's ban on non-essential trade with Iran.
Taxation concession	A maximum of $7.70 which concession card holders pay on approved Public Benefit Scheme medicinal drugs.

(b) Inquiry

Investigate the use of 'dumping' of cheap foreign surpluses in Australia in recent years.

- What were these items?
- Where did they come from?
- What were the possible repercussions in Australia on individuals, firms and government?
- How can a country diplomatically respond to this practice?
- Have there been any actions taken against countries engaging in this practice with Australia? What were they? When did it happen?
- Has Australia been in trouble itself for engaging in dumping?
- Do you think that anti-dumping legislation is a legitimate form of protection? Explain your viewpoint.

(c) Research changes that have occurred in Australia's clothing, textile and footwear industries over the past three decades. Note changes in relation to forms of protection, competition, employment, exports and imports.

Use the information you find to comment on one of these statements:

- 'The lack of Australian-made clothing for sale is an indicator of an inefficient industry.'
- 'Protection is necessary as it creates jobs.'
- 'The use of sweat-shop labour in Australia can be related to falling tariffs.'

Arguments in favour of protection

You are now familiar with many common forms of protection. This section will explain the reasons why people or countries may support protection.

Protection assists infant industries

New industries tend to be inefficient initially, as they learn what works best and modify some of their early practices. Without some form of protection, many new industries would be unable to compete against large-scale, efficient industries that have established good reputations. This argument was behind the imposition of tariffs in the white-goods, automobile, and clothing, footwear and textile industries in Australia in the 1960s and '70s.

Protection encourages diversification

This means that countries may have the opportunity to produce a wider range of goods and services, which otherwise would not have been the case. Without the protection mentioned above, Australia may have not developed much beyond being a major primary producer of wheat, wool, iron ore and coal.

National security can be improved, and self-sufficiency developed

By diversifying, as referred to above, a country may become more self-reliant, which could be of benefit in times of war, for instance, when trade routes may be interrupted and vital imports disrupted. Using this argument, some analyst have argued for the reintroduction of protection as global supply chains were interrupted during the COVID-19 pandemic and governments realised how reliant they had become on global supplies to keep their own economies flourishing.

Protection encourages job growth and economic growth

By diversifying, and favouring locally produced goods and services over more expensive imports which have had tariffs added to their cost for instance, local employment is bolstered, flowing on to more spending and economic growth. The government's tax revenue could increase, too.

External balance may be improved

Through measures such as tariffs and subsidies, imports are discouraged, and exports encouraged. Earning more income from overseas sources than payments by importers creates a positive trade balance in the Balance of Payments, which records a country's transactions with the rest of the world.

Foreign investment could be encouraged

For example, in the past, foreign car manufacturers established plants and factories in Australia to avoid the barriers involved in importing their cars to this market at a competitive price. Motor vehicles have not been produced in Australia since 2017.

Reduced dumping of foreign surpluses

By imposing quotas, a country with a large surplus will be unable to export its products at rock-bottom prices to clear the excess. This practice, called 'dumping', can severely hurt local competitors. Dumping has occurred in Australia in relation to such items as printer paper from Indonesia, sultanas from Türkiye and orange concentrates from Brazil.

Protection against low cost structures elsewhere

Imported goods may be cheaper due to lower cost structures where they are being produced. Australia has very high wages compared with many other countries, particularly its competitors in Asia. Other fees and charges may be higher here, too. Protection such as a tariff may bring the price of the import more in line with a local substitute, encourage consumers to buy the local alternative.

Arguments against protection

You have read the arguments in favour of protection. Let's now consider the other side of the story.

Consumers pay higher costs

If tariffs, for instance, are put in place against imports, consumers are disadvantaged in that they are paying more than they would be if there was no protection. On top of that, they are financially discouraged from taking advantage of higher levels of technology and innovation relating to goods or services from other countries.

Inefficiency is possible

Because local industries are being protected from foreign competition, there is little incentive for them to adopt world-best practices. Innovation, research and development all cost money, and artificial protective measures reduce the short-term need for such activities.

Local firms may become complacent, knowing that they are being 'looked after' by the government. When protection is removed, the uncompetitive industry may go out of business, affecting local jobs. This has been readily seen in Australia, where motor vehicles are no longer produced, and the clothing footwear and textile industries have been severely reduced.

Retaliation is possible

Government action to protect one industry could result in another industry being penalised. When imposing a tariff, for instance, it is not at all uncommon for the country facing the tariff to impose its own barriers on their partner's exports. In the USA/China trade dispute which began in 2018, China retaliated against America's imposition of tariffs on many Chinese manufactures by putting its own tariffs on major agricultural products, such as soya beans which it imports from the USA. Billions of dollars' worth of products have been made more expensive for consumers in each country, with trade tensions still existing between those countries in the mid-2020's.

Distribution of income may be affected

By favouring some groups over others, there can be both financial winners and losers from protection. Regarding tariffs, for instance, local import-competing industries will be advantaged, but exporters may lose out if retaliatory measures are taken against them.

Increased costs for consumers

Consumers may suffer a decrease in their standard of living if they have to pay higher prices for essential imports. It has been estimated that the USA/China trade dispute is costing consumers in the USA between $500 and $1000 per annum, on average.

Activities

2. Prepare a plan to help you analyse protection. Suggest an appropriate argument against (cost) each major benefit. An example is provided.

Benefit	Cost
Helps provide local jobs	Jobs may be lost in import-competing industries if retaliatory action is taken

3. Inquiry

   Investigate either the USA/China trade dispute that started around 2018, or the Australia/China trade tensions which emerged in 2020.

   (a) Research several key factors that prompted this trade dispute.

   (b) Collect and display statistics relating to each country that indicate impacts of the dispute.

   (c) Analyse your results – winners and losers. Consider this issue from the perspectives of individuals, firms and government.

   (d) What have been key outcomes of this dispute? Has it been resolved?

4. Prepare a 3-minute podcast providing your considered and substantiated opinion on one of the following statements relating to the Australia/China trade dispute before and after COVID-19:

   (a) 'Governments can be both a winner and a loser because of protection'

   (b) 'The trade dispute had significant impact on several key industries.'

   (c) 'China had more to lose than Australia in the trade dispute.'

   (d) 'The trade dispute was more about political differences than perceived shortcomings in the products themselves.'

   Share your podcast with class members.

Globalisation

Helpful online resources

For an introduction to this concept, watch the short video clip *Globalisation Explained*.

www.youtube.com/watch?v=JJ0nFD19eT8

Globalisation relates to the reduction or removal of barriers between countries, resulting in increasing integration. You might say that we are becoming a 'global village'. Globalisation enables improved flows in terms of trade, technology, investment, finance, and indeed, of people themselves.

Barriers that make trade more difficult and expensive might include forms of protection, such as tariffs (a tax on imports), passport controls, visa requirements and currency regulations. A move away from deglobalisation has gathered pace since COVID-19 with intense trade rivalries continuing between the USA and China, terrorism in major international shipping lanes , political unrest in Europe and concerns over climate change. Factors such as these have led many countries to turn to supporting the growth of locally produced goods and services over the benefits of free trade outlined below. In 2024, the Australian government introduced a new bill championing a 'Future Made in Australia'.

Arguments in favour of free trade

This section will explain the reasons why people or countries may support free trade.

Specialisation is encouraged

Countries who trade benefit from the principle of **comparative advantage**. In other words, countries should specialise and trade in the items for which they have the lowest **opportunity cost**. Opportunity cost is what is given up when a decision is made. Comparative advantage shows that total output increases if countries specialise and trade.

Helpful online resources

Watch this video clip – Example: comparative advantage.

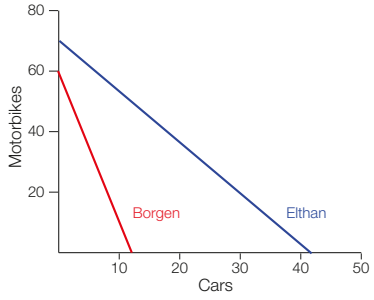
www.youtube.com/watch?v=rznDegemqGg

How does comparative advantage work?

Imagine that two countries, Borgen and Elthan, both produce motorbikes and cars.

Maximum output	Borgen	Elthan
Motorbikes	60	70
Car	12	42
Total output	72 items	112 items

We can show their potential output on the production possibility curve.



You can see that Elthan can produce more motorbikes and more cars than Borgen, so it has the absolute advantage in producing both items. Why should it specialise in just one product? We need to work out which country **loses least** in their production of these items.

What is the opportunity cost for Borgen to produce one motorbike?

If Borgen was not producing any cars it could produce 60 motorbikes. To produce 1 motorbike it has to give up 1/5 of a car (12/60). This can also be stated as 0.2 of a car or 20% of a car.

For Elthan? If it didn't produce any cars it could produce 70 motorbikes, so 1 motorbike is costing it 3/5 of a car (42/70). This can also be stated as 0.6 of a car or 60% of a car.

Borgen loses least in the production of motorbikes, as its opportunity cost is 0.2 of a car, whereas Elthan loses 0.6 of a car for each motorbike it produces. Borgen has the comparative advantage in the production of motorbikes.

Activities

5. Who has the comparative advantage in the production of cars? Show your working:

Borgen

Elthan

We have ascertained that Borgen has the comparative advantage for producing motorbikes, and Elthan has the comparative advantage for the production of cars. If neither country had a comparative advantage due to equal opportunity cost, there would be no benefit in specialising.

Access to new markets

If barriers are reduced between countries, there is increased opportunity to find new markets. This could lead to an improvement in a country's **economies of scale**, which occur as output increases until potential is maximised. In other words, it is inefficient if a production line is running for just 8 hours a day when potentially it could be running for 24 hours. Some costs will be the same, regardless of the time involved. The machinery has been bought and paid for. It is wasteful to have it lying idle for most of the day. As output increases, therefore, the cost per unit decreases, and potential profit increases. This is true up to the point when those machines are running 24 hours a day and output is being maximised.

Improvement in economic goals

If new markets can be found, jobs may be created, spending could increase, and there may be economic growth. The economic goals of full employment and economic growth could improve.

Earning of foreign exchange

Dealings with countries overseas means that payments must be made through the foreign exchange market. Earning income through exports helps cover the payments which must be made for imported goods or services. If you sold a piece of jewellery on eBay to someone in England, their British pounds would be converted into Australian dollars through the banking system to make payment to you.

Lower prices, more choice, better quality

Free trade exposes consumers to a wider range of goods. The improved economies of scale and increased competition mean that prices could fall. Quality is also likely to improve as new competitors jostle in the market place for buyers.

Innovation is encouraged

Trying to compete on the world market encourages firms to be more innovative, and to put money into research and development.

Cochlear Limited, an Australian company, is the world leader in production of implants for the hearing impaired. Its devices are sold in over 80 countries. The firm reports that it keeps ahead of its international rivals through continual investment in hearing technology.

Cochlear has sold over half a billion implants worldwide, with annual net profit in excess of $250 million. In 2024 on the Australian Stock Exchange just one share in Cochlear Ltd would cost over $280.

Improved standard of living

Being exposed to a wider range of goods, especially at cheaper prices, advantages consumers. Consumers are also more able to take advantage of technological advancements from other countries.

Goodwill, cultural and strategic links

Positive trade relationships break down barriers between countries. A way of fostering trade is to establish cultural exchanges between countries to develop trust and understanding regarding other cultures.

Australia has free trade agreements with a number of countries, including China, South Korea, Japan, Malaysia, Indonesia and Singapore. The OzAsia festival held in Adelaide each year plays a part in this positive exposure to the cultures of our near neighbours. **National security** is likely to improve through positive trade and cultural exchanges.

Activities

6. Outline the meaning of the following terms in Economics:

   (a) Economies of scale

   (b) Comparative advantage

7. Take a quick tour of your living quarters. Look at the tags on your clothes and see where your shoes were made. Poke your head into the kitchen cupboards and read the labels on tins, jars, packets and bottles. See where the crockery and cutlery came from. Check out the electrical equipment.

   List four items relating to each category and state the country of origin.

   - Clothing/footwear
   - Food/kitchen/dining
   - Electrical

   Write down the country that featured most often as a source of your clothing/footwear. If there was no specific single country that featured prominently, perhaps you can identify the area from which most items came. Were they from Asia, Europe or North America for instance?

   Suggest a major reason for the most common source of your clothing or footwear.

   Did Australia feature as a major source of your clothing or footwear? Give a possible reason for your findings.

Activities

8. Inquiry

Investigate Adelaide's sister-city relationships, which started over 50 years ago.

(a) Which cities are Adelaide's sister-cities?

(b) What are the major purposes of these relationships?

(c) Choose one of Adelaide's sister cities and explain the possible benefits to each city from this relationship.

(d) In what ways can the OzAsia Festival held each October in Adelaide be linked to the sister-city relationships?

(e) Provide a cost–benefit analysis of Adelaide's sister-city relationship with one of the participating cities. The use of data will assist in your assessment.

9. Divide into groups of four. Be prepared to debate the following topic: The proposed 'Future Made in Australia' policy of 2024 is likely to have more costs than benefits.

Arguments against free trade

While it is true to say that free trade means improved access to new markets, there is no certainty that the access will result in new contracts. Free trade has clearly benefited some countries, but the global benefits have not been uniform. Some major problems include the following:

Possible loss of competitiveness

Local firms may not be able to compete against the resources, economies of scale, cheaper costs and established reputation of international competitors.

Underemployment may rise

Workers may face structural unemployment if local uncompetitive firms close.

Disadvantages for government

The government may suffer a drop in its approval ratings if unemployment rises. It may have to divert resources towards paying for retraining schemes. Tax income could fall as unemployment rises, and social security payments could increase, too.

Industrial unrest may increase

Industrial action, through methods such as strikes or 'go-slows', could increase as workers take action to try and protect their jobs. Foreign investment could fall if a country's productivity falls due to prolonged labour militancy.

Structural changes in production may occur

Traditional agricultural communities may be decimated if a country turns significantly to the production of commercial products such as tobacco, or if the labour force is attracted away from farming into mining, for instance. Shortages of food may need to be filled by expensive imports, sometimes creating the need for foreign aid if economic growth suffers a severe downturn.

Exploitation may increase

If transnational corporations move into a country to take advantage of cheaper costs, exploitation of labour and resources can occur if the relevant local laws are weak or not enforced. Pollution, deforestation, use of child labour, loss of flora and fauna are possible costs.

Global economic and social upheaval is possible

The COVID-19 pandemic and associated global lockdowns of industries has caused massive disruption to households, firms and governments. As restrictions were eased and firms were allowed to re-open, many faced collapse as the imports they relied upon were held up in the source countries. Geo-political tensions increased as unemployment rose and many citizens protested against the loss of manufacturing in their own countries. The cry for increase self-sufficiency became louder.

Cultural changes may be significant

With increasing exposure to the clothing, food, music, media, and values of rich countries, traditional beliefs and practices can be eroded.

Helpful online resources

Watch this short video clip, *Globalisation Explained*.

www.youtube.com/watch?v=JJ0nFD19eT8

Activities

Inquiries

10. Work in pairs to consider one of the following statements. You may agree or disagree with the statements, and your argument will be considerably strengthened by evidence from your research. Remember to use such economic terms as **opportunity cost**, **specialisation**, **costs**, **benefits**, **comparative advantage**, **economies of scale**, **protection**, **exploitation** and **competitiveness**.

    (a) 'Genetically modified food may create more costs than benefits in international trade.'

    (b) 'Since the global financial crisis there has been a move away from free trade.'

    (c) 'Economic decisions regarding trade can have significant non-economic outcomes.'

    (d) 'Australia's free trade agreements prove that free trade does not mean no barriers to trade.'

    (e) 'Rich countries have benefited from globalisation more than poor countries.'

    (f) 'The future doesn't belong to globalists. The future belongs to patriots.' — Donald Trump, September 24, 2019.

    (g) 'The hundreds of thousands of tourists who go to Bali each year have created significant costs as well as benefits for the Indonesian people.'

    (h) 'Australian producers are disadvantaged by the many other countries who are slow to dismantle their trade barriers.'

    (i) 'The COVID-19 pandemic may have signalled the end to globalisation as we know it.'

Activities

11. In 2024 Australia's exports of goods and services to the USA totalled over $20 billion, whereas imports of goods and services from the USA totalled over $50 billion (Source - DFAT STARS database).. Comment on this statement: 'The Australia/USA free trade agreement has been a huge mistake.'

    Use research to help validate your view.

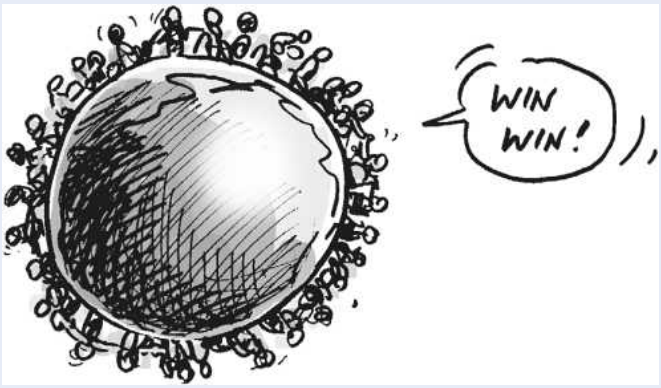
12. Some of Australia's major exports are controversial on social or environmental grounds. Find **evidence** to add credibility to your views in relation to **both** a benefit and cost in support of the following statements. Present your findings to your peers.

    (a) 'Many sheep die in terrible conditions when exported to other countries. Australia's live-sheep export market should be stopped.'

    (b) 'The burning of coal is a major contributor to climate change. Australia's export of coal should be banned.'

    (c) 'Uranium as a power source is far cleaner than coal. As a major world producer of uranium, Australia should increase its uranium exports.'

13. There are many cartoons relevant to globalisation.



    Find one that you can use to help explain your stance on free trade, whether you are in favour of it or against it. Briefly outline your opinion as you explain your view to your classmates.

Activities

14. (a) Construct a line graph to show the change over time in the value of Australia's exports to China. Investigate the most recent annual figures and include on your graph.

Value of Australia's exports to China since 2013

US$ (billions)	86	81	61	60	66	86	88	90	115	102	120			
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026

(b) Attempt to explain the trend relating to Australia's exports to China evident from 2013 to 2016. Investigate what was happening in the Chinese economy at that time. Consider indicators such as gross domestic product, the measure of economic growth.

(c) 'Australian services are also a significant earner of income from China.' What are the two main services earning export income?

(d) What are the three main exports from Australia into China?

(e) What is likely to happen to China's trade with Australia when the value of the Australian dollar increases? Explain your answer.

(f) Why might the figures in 14 (a) above be shown in US$?

Activities

(g) Australia signed a free-trade agreement with China in 2015, yet in 2020 - 22, tariffs of 80 - 200% were imposed by China on Australian barley, lobsters and wine.

Investigate the reasons for this action and the state of play regarding the tariffs on these products in the current year.

15. "Foreign students a $48 billion bonanza"

(The Australian, March 6, 2024)

A country earns income from selling services as well as goods, and in the international sector a major source of income for Australia is earned from foreign students studying in this country. In 2023 revenue earned from education reached its highest annual figure ever recorded of $48 billion. This record total was derived from tuition fees, plus living expenses such as housing, transport, food and entertainment. Over 975,000 international students were enrolled in the Australian education sector in 2023.

(a) Over half of Australia's international students came from five countries, China 20%, India 17%, Nepal 9% and Vietnam 5%.

Suggest several reasons why Australia had been chosen as a place of study by this group.

(b) Imagine that you are a young person from Asia considering tertiary study in another country. Outline a cost/benefit analysis to help in making an informed decision. Remember to consider private, external and social costs and benefits (page 25).

(c) We introduced the difficulties associated with the use of cost/benefit analysis on page 25 also. Suggest two difficulties you may have considered when doing the analysis above.

(d) Share your findings from parts (a) - (c) with your class.

16. In 2024, the government considered that the rapid rise in international students studying in Australia was unsustainable. Investigate the changes made to this industry and analyse possible outcomes from a private, external and social perspective. Share your findings with your class.

Chapter 6: Elective scenario – global poverty

The scenario is developed through a range of activities which the student addresses, through guided research.

While there have been major advancements made towards reducing global poverty, millions of the world's people are still living in extreme poverty today. Nearly 10% of the world's population are living on less than US$2 per day.

Activities

1. Consult the World Poverty Clock to see real-time evidence of this issue:

   www.worlddata.io/products/world-poverty-clock

   Compare the most recent figure with the projection for 2030.

How do we measure economic growth?

In your research on this topic you will encounter a variety of terms to do with income. It will help to have a general understanding of the meaning of these terms before you begin your research on global poverty.

Gross domestic product (GDP)

This has been referred to earlier, and you should remember that it is the value of final goods and services produced over a period of time. 'Real' or 'constant' GDP refers to the monetary, or nominal, value of GDP adjusted for the inflation rate.

Helpful online resources

Watch the useful video clip, *What is GDP?*

www.youtube.com/watch?v=iLom1WlqwS0

GDP per capita

This is the value of total gross domestic product of a country divided by the population.

This will probably be of more use to you when considering a particular country than the total economic growth figure, as it will provide you with an average figure per person, which makes comparisons between countries more useful.

After all, with its vast size, large population, technological development and natural resources such as oil, we would expect the USA to have a higher GDP than Switzerland, and it does – over US$20 trillion compared with Switzerland's GDP of over US$700 billion. But when we divide the output of the USA by its population of over 370 million people, the per capita income is around US$62,000, whereas Switzerland, with a population of only 8.5 million, records a per capita income of approximately US$80,000.

This doesn't mean that every person in that country is earning the per capita amount.

The per capita income is only an average, but it is a good starting point for comparison, and is an indicator you should be able to readily find.

Gross national income (GNI)

Basically, GNI relates to goods and services produced by a country's citizens or firms, wherever in the world they are produced.

Gross domestic product, on the other hand, just measures output in a particular country, regardless of the ownership of the firms or the nationalities of the workers.

Purchasing power parity (PPP)

Sometimes you will hear people say, 'Yes, that country is really poor, but it is very cheap to live there.' What PPP does is to adjust GDP figures to account for influences on exchange rates so that a selection of goods and services will cost the same in the PPP-adjusted countries. The figures will be recorded as $ PPP (at current international dollars rather than US dollars, for instance)

Helpful online resources

Watch the video clip *Purchasing Power Parity*

https://www.investopedia.com/articles/fundamental-analysis/ppp-big-mac.asp

The $ sign

Take a good look at that $ sign. In relation to global statistics, for instance on the World Bank's website (www.worldbank.org), economic growth is often reported in US$. This makes comparisons more meaningful than if local currencies were reported, such as New Zealand dollars, Australian dollars and Canadian dollars, all with different purchasing power in relation to the US dollar. See the point regarding purchasing power parity above, as the $ sign with PPP relates to 'international dollars'.

So you might see several different amounts for a particular country's economic growth. Is there a mistake? No. Look to see the currency in which the data is expressed, as they are likely to be different.

Activities

2. (a) Calculate the 2023 per capita income of China. Compare this with the USA**.**

Please show your calculations and comment on your result.

	China	USA
GNI (US$ billion)	18,151.28	27,124.41
Population	1,425,671,352	339,996,563
Per capita income		

(b) Find the most recent figures (consult **worldometers.info**) and update your findings. Comment on your result.

(c) In 2024 India had overtaken China as the world's most populated country. China's population fell in 2023, as did Russia's and Japan's, amongst several other countries which can be seen on worldometers.info.

Investigate one of the countries with an annual population decline and share your findings with your class, as the reasons are likely to vary considerably.

Consider also the long term economic and social ramifications if the trend of 2023 continues.

Activities

(c) (i) Use the figures below to comment on this statement:

'Türkiye has a higher gross national income than Switzerland. It must be the richer country.'

	Türkiye	Switzerland
GNI (US$ billion)	903.49	784.47
Population (2023)	85,816,199	8,796,669

(ii) What do the findings you have made regarding Türkiye and Switzerland suggest in relation to the analysis of data?

3. Go to **www.worldbank.org** to find several measures of economic growth for a country of your choice.

Country	**Year**
GNI per capita	**World ranking**
GNI per capita (PPP)	**World ranking**

Were the rankings in the able above the same when both results measure economic growth? Account for any discrepancy.

Explain which economic growth figure you think is most useful. Why do you think this?

Share your findings with your classmates.

Record the highest GNI per capita figure in the class and suggest major reasons for the economic standing of their country.

And the lowest? Suggest major reasons for that country's economic performance.

Activities

4. Suggest three weaknesses in relying on economic growth figures as the measure of the standard of living in a country.

5. From what you have learned regarding data, comment on the following statement:

   'Trends suggest that by 2030 the richest country in the world will be China, followed by the USA and then India.'

What causes poverty?

Activities

6. Inquiry

   Watch the YouTube clip *Why some countries are poor and others rich.*

   www.youtube.com/watch?v=9-4V3HR696k

   (a) It is suggested that there are three major factors determining why some countries are poor and others rich. Add relevant points under the headings provided.

   (i) Institutions

   (ii) Culture

   (iii) Geography

   (b) What arguments are presented to address the prejudice that sometimes is heard in relation to the poorest countries in the world?

   (c) What suggestions were made as to why some countries are rich?

Activities

(d) Can you suggest any other factors that may have contributed to wealth?

7. Go to Dollar Street at **www.gapminder.org**

Select a low-income country from those shown and write a brief report about life in that country from the point of view of a range of income-earners.

Use the terms **scarcity**, **choice costs and benefits** and **opportunity cost** in your response.

Share your findings with your classmates.

Can we display global income inequality?

The Lorenz Curve can be used for this purpose. Imagine if there was equal income distribution throughout the globe. The simple graph would show 50% of the population earning 50% of the income, the 45 degrees line from the origin.

In the example below, at the end of the 20th century, the poorest 20% of households earn just 5% of the wealth, while the richest 10% of households own 55%. The 'middle class', the remaining 70%, share the rest.

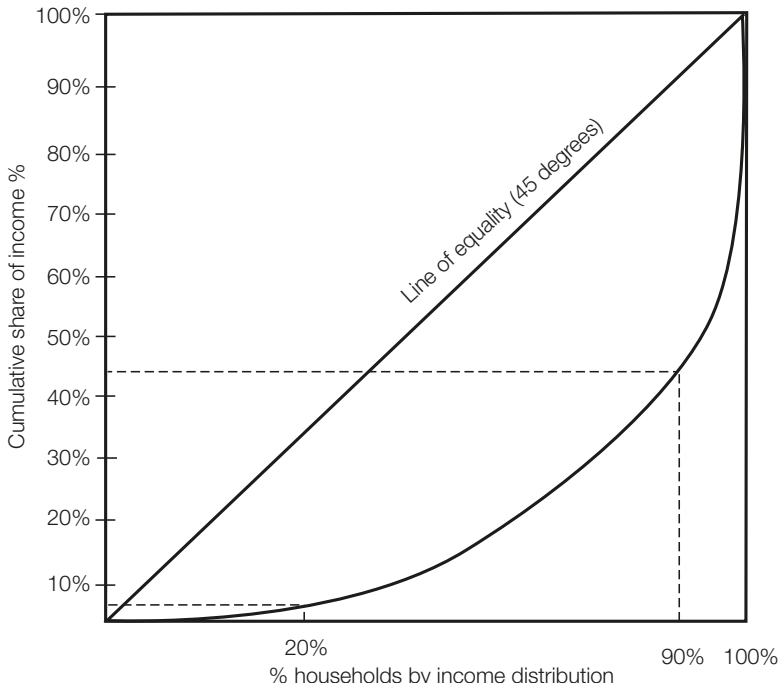


Figure 6.1: The Lorenz Curve showing global income distribution, year 2000

Activities

8. The Organisation for Economic Cooperation and Development (OECD) estimated that, in the second decade of the 21st century, the richest 10% of global households owned 85% of total income, and the poorest 50% owned around 9%.

   Show the resulting new curve on the Lorenz Curve on page 87.

9. It is interesting to note that in the 20th century when the command economic system was in more widespread use, global income distribution was less pronounced than it is today. Suggest why this might be so.

   Looking back at your notes on the chapter 'Government involvement in the economy', might help in this regard.

Is the distribution of world income becoming more unequal?

The answer to this question seems to depend on how it is measured and which report you read. Other reports say that in some countries income distribution has improved significantly, while in others it has gone backwards.

Oxfam reports that in 2018 the world's 26 richest people own as much as the poorest 3.8 billion people (nearly half the entire world's population). In 2024, 8 of the richest 10 people in the world were American.

Activities

10. Inquiry – Find a country where the gap between the rich and poor has narrowed in the last two decades. There are many useful sites for this task, including **www.ourworldindata.org**, **www.gapminder.org** and **www.worldbank.org**. These are just starting points.

    Present your findings to the class, with reasons for the closure of the income gap.

11. Inquiry – Read this article regarding income inequality.

    'World Bank's optimism about declining global poverty is missing a crucial point'
    www.qz.com/africa/1428639/world-banks-measure-of-poverty-is-flawed/

    Summarise the main points made by the author.

Activities

12. Inquiry – Investigate the theories of the economist Thomas Picketty.

    (a) Summarise his key views.

    Read this article as a starting point.

    'Thomas Piketty's "Capital", summarised in four paragraphs' **www.economist.com/the-economist-explains/2014/05/04/thomas-pikettys-capital-summarised-in-four-paragraphs**

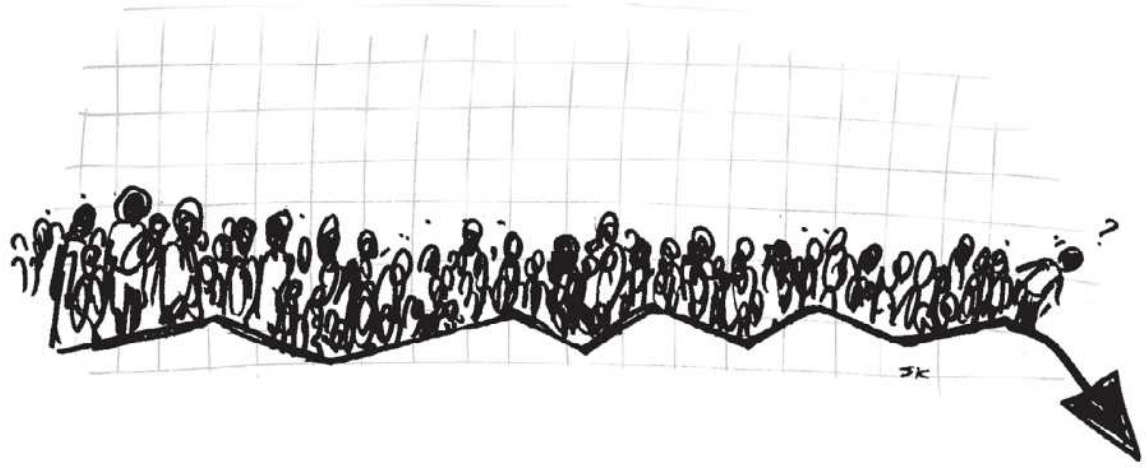
    (b) Analyse one of Picketty's major suggestions for improving world equality: imposing a global wealth tax.

What is holding back the development of the poorest countries?

In the video clip you watched earlier (*Why Some Countries Are Poor and Others Rich*: **www.youtube.com/watch?v=9-4V3HR696k**) you considered why some countries are poor and others are rich.

What continues to hold back the low-income countries? Obviously, they have no options in relation to their geography, as they cannot change their location or the climate. And, indeed, climate change itself may be making their economic situations worse.

Some factors that have been alluded to before, but which a country may have some influence over, relate to issues such as population pressures, lack of education, difficulties in relation to international trade, deficiencies in government, and lack of agricultural or industrial development.



Activities

13. Inquiry – Consider suggestions as to any other major barriers to development.

    The suggestions which follow do not make up an exhaustive list, and you may wish to investigate a different factor in the following task. Negotiate this with your teacher before starting your investigation.

    Work in groups to investigate one of these five major barriers to development. Suggest several possible private, external and social costs related to this issue.

    Use data to substantiate your opinion – this will add validity to your views. The World Factbook at **www.cia.gov/library** and **www.infoplease.com** might provide good sources as starting points. **www.worldometers.info** could be useful also.

    An example is provided.

Barriers to development

Population pressures	Country	Indicators
Economic pressure of family size	Niger	6.7 births per woman (2023)
Costs related to this barrier		
Lack of education		
Costs related to this barrier		
Difficulties in relation to trade		
Costs related to this barrier		
Deficiencies in government		
Costs related to this barrier		
Lack of agricultural or industrial development		
Costs related to this barrier		

Share your information with your group, and combine your findings in Google Docs. Prepare and present a PowerPoint for the class.

How are these barriers to development interdependent?

The connection between key indicators of poverty are readily understandable. In a simple format it can be shown like this.

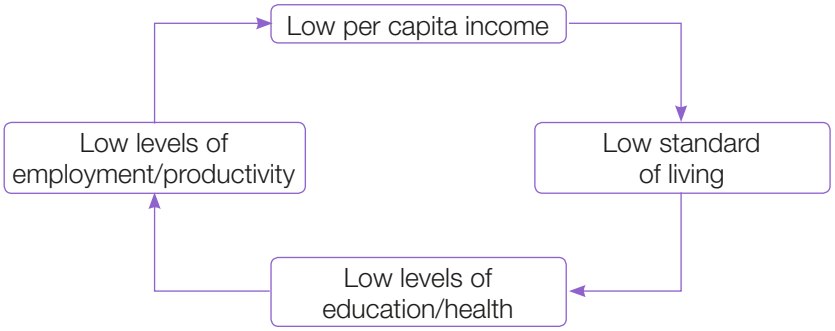


Figure 6.2: Cycle of poverty

Activities

14. Inquiry – Countries are classified by the World Bank according to high, medium and low income per capita status. In 2024, GDP per capita of under US$1,136 put a country into the category of low income. We are talking about income per person of around US$24 a week!

    (a) Find the current threshold for classification of a low-income country. Include the year to which the figures relate. Convert that figure into Australian dollars. See **www.xe.com** for a currency converter.

    Australia is a high-income country. Find the most recent GDP per capita for Australia and convert to Australian dollars to compare with your first findings. Your findings may shock you. Consider factors which have contributed to Australia's comparative wealth.

    (b) From the list of countries obtainable on the World Bank site (**www.worldbank.org**), choose one of interest to you, and research indicators that can be used to portray the cycle of poverty in that country.

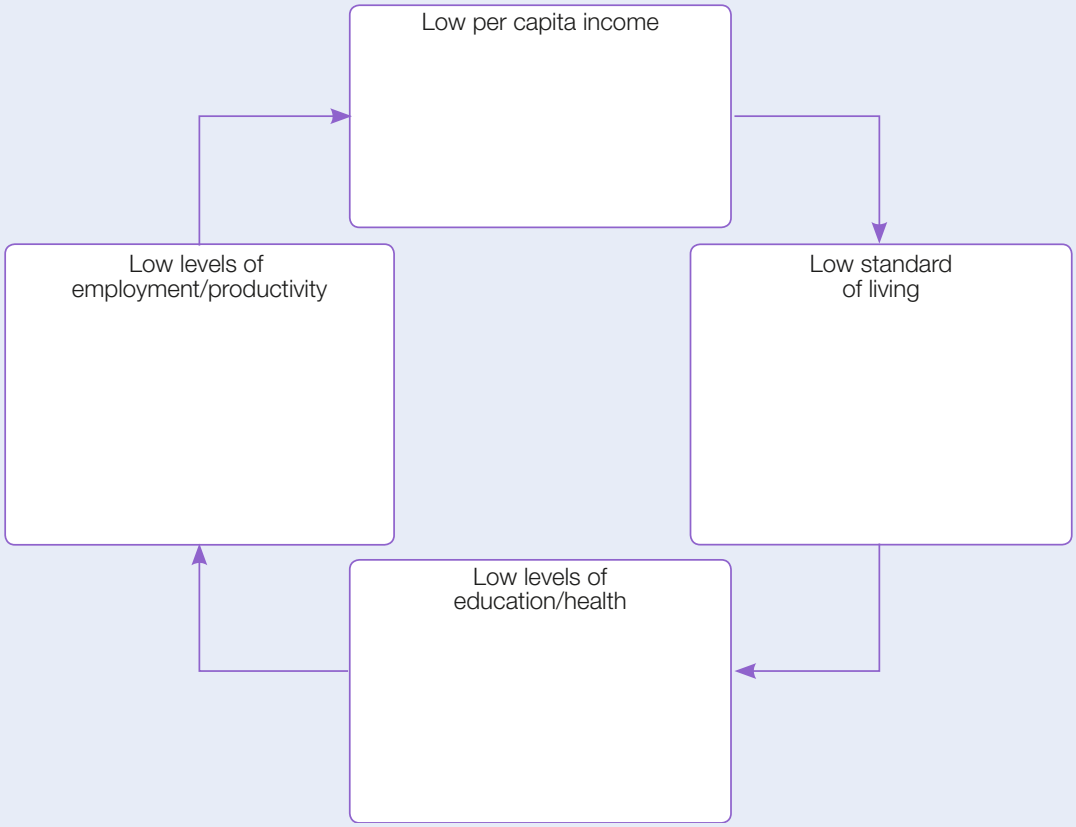
    Indicators that may help show standard of living may include the number of internet service providers, access to libraries, gender equality, crime rates, how many kilometres of paved roads there are, number of airports, access to clean water/electricity, and so on. You can add others.

    In relation to low levels of education and health, it could be useful to show literacy rates for males and females, completion rates of primary and secondary schooling, school attendance rates, or numbers of universities in that country.

    For health, a range of indicators is useful, such as life expectancy, infant mortality, access to clean water, number of births per woman, number of doctors per thousand. You are welcome to add others.

Activities

Show your findings here.



Share your findings with your classmates.

15. Inquiry – Consider the following article and consider the task which follows.

A moral conundrum – growth vs the environment

It is estimated that up to 300 million Indians live without access to electricity, which provides vital infrastructure for personal and business needs.

Access to electricity means better technology, refrigeration, communication, education and health care – overall, an improvement in the standard of living for individuals and an increase in productivity for firms. Per capita energy consumption in India is about one tenth of Australia's rate.

So what is the problem? In its push to help tackle the poverty issue, India needs to ensure reliable base-load supply capacity, the cheapest source of which, for India, is coal, a major contributor to greenhouse gas emissions. And who is India's greatest supplier of coal? Australia, which is busily closing its own coal-fired power stations as it turns to more renewable power sources.

Within Australia, climate-change activists have fought long and hard to prevent the development of the major Carmichael coal mine in Queensland. Yet, on the other hand, this mine could provide hundreds of jobs for Australians. Whether or not this mine should go ahead became a major issue in the 2019 federal election but approval was granted for this mine to go ahead. Indian politicians have revealed that if coal is not forthcoming from Australia, the country will simply import lower-quality coal from Indonesia, which will leave a larger carbon footprint.

India is also busily developing solar and wind energy sources, yet sees coal as fulfilling its need for a reliable, efficient and cheap energy source as it seeks to improve the lives of its billion-plus citizens.

Activities

(a) (i) Prepare a cost/benefit analysis relating to arguments around development of the Carmichael coal mine in Australia. Don't forget to use the categories of private, external and social costs and benefits.

Research the issue and use data projections to give your opinions more validity. Provide a brief conclusion as to whether you think the social benefits outweigh the costs, and refer to the difficulties inherent in cost–benefit analysis, considered in the scenario on Economic Decision-making.

(ii) Using the same format as asked in 15 (a) (i) above, investigate China's Belt and Road initiative, a mammoth global infrastructure project which has the potential to significantly alter the lives of citizens in over 130 countries who are signatories to this project. It has significant economic, political, social and environmental implications. Do this as a group project using GoogleDocs (or another collaborative platform) to share your findings.

16. Inquiry – Prepare a 3-minute podcast based on one of the following contentious statements. You could also come up with one of your choice in negotiation with your teacher.

(a) 'Low-income countries are justified in using non-renewable energy to help develop their economies.'

(b) 'It is quite reasonable that even though the world's wealthy countries pledged through the UN to give 0.7% of their GNI in foreign aid each year, very few do.'

(c) 'The principles of moral capitalism would help reduce global income inequity.'

(d) 'Global poverty is far too big an issue for me to do anything constructive about.'

What can be learned from countries that have made substantial economic improvement?

Activities

17. Inquiry – Investigate a country which has shown marked improvements in its citizens' quality of life in the last two decades. The World Bank database makes an excellent starting point if you are looking for GDP per capita over time (**www.worldbank.org**).

    One example is Vietnam, where the GDP per capita has increased from less than US$400 in the year 2000 to over US$4,000 by 2024.

    Another is Rwanda, which has the highest proportion of female representation in parliament in the world. Since the end of Rwanda's civil war, over 20 years ago, it has improved its infrastructure, made great strides in relation to health and education, and adapted technology to suit the requirements of its industries.

    Cambodia has increased its GDP per capita by over 500% in the past 20 years.

    This list is not exhaustive. You make like to discuss another option with your teacher before starting this task.

    (a) Summarise your main findings. How has this country been able to improve so extensively?

    (b) Show the change in GDP per capita over the last few decades, plus other indicators that demonstrate an improvement in quality of life. Examples include life expectancy, infant mortality, literacy. Summarise your findings here.

    (c) Consider now a country that has made little progress (or even gone backwards) over the past two decades or so. Examples include Burundi and Somalia.

    What has hindered their economic and social progress? Use indicators to validate your findings.

    (d) You may have noticed that some of the indicators you have found are quite outdated, or may not even be available. Suggest possible reasons for inability to find current data.

Activities

(e) Form groups and make a video recording of your findings above. It may be done using the format of a host interviewing a range of people on their views regarding how some countries have been able to assist their citizens to increase their standards of living, while others have not.

18. Inquiry – Investigate other methods of developing a low-income country's economy.

    Depending on what you have already discovered in question 17, you might also like to consider the joining of trade blocs, international trade, foreign investment, tackling corruption, or improving education.

    Provide a cost/benefit analysis of one of these strategies.

How are the United Nation's Sustainable Development goals going?

The United Nations has developed a wide range of goals for the sustainable future of our planet. These relate not only to economic factors, but also to social and environmental issues.

Activities

19. Major progress in reducing world poverty had been made prior to COVID-19. Since then economic conditions have worsened for many countries and the World Bank admits its goal of ending extreme poverty by 2030 will not be achieved.

    (a) Go to **www.un.org/sustainabledevelopment/poverty** and investigate the United Nation's Sustainable Development goals.

    Choose one goal related to economic progress, one social goal and one environmental goal. Jot down several key points relevant to each – what the goal is, how it is being addressed and what success (if any) there has been to date.

    Economic sustainability goal:

    Social sustainability goal:

Activities

Environmental sustainability goal:

(b) Choose one of these categories and provide an example of how you as a member of the human race might assist in the achievement of these goals.

(c) Research some assessments of these goals. Provide key points relating to one of the goals, considering views in favour of the programs and the views against.

(d) 'The United Nations is likely to eliminate extreme poverty by 2030.'

From the reading you have done in this scenario, comment on this statement.

How did COVID-19 impact on the world's poorest countries?

The International Monetary Fund's economic findings suggests that economic growth post-pandemic has fallen further in most low income countries than advanced economies. In 2020, schools were closed in 150 of the world's countries, government support varying from considerable to zero, and well over a billion people in the developing world have suffered major job disruption.

Activities

Oral Report

Investigate the economic, social, environmental and political response to the COVID-19 pandemic in a low or medium income country of your choice.

Refer to causes of poverty and barriers to development in this country with connection to COVID-19, evaluating the government's response. Prepare a 5-minute PowerPoint presentation for your peers.

Chapter 7: Elective scenario - Bringing it all together

Thinking like an economist

Back on page 1 we said that the focus of this course would be to enable and encourage you to 'think like an economist'.

In this elective scenario, you are encouraged to research and apply data, using the language of the subject and the skills and knowledge you have gained, to report objectively on one of the topics outlined below.

Your major focus will be to provide a cost-benefit analysis on your chosen topic and come to a reasoned conclusion.

You need to tackle this task with an open mind. You may be surprised to find that by the time you have researched and reported on this topic, your initial impressions, either 'for' or 'against' may have changed. A biased economist is not a good economist!

Potential issues topics

- The rise of artificial intelligence
- The 2024 Paris Olympics
- The growth of the gig economy
- The 'working from home' phenomena
- The online retailing juggernaut
- Australia's gender pay gap
- Power of the technology Big Seven (Nvidia, Meta, etc)
- 'Closing the Gap' for Indigenous Australians
- 'Swiftonomics' – economics and the Taylor Swift phenomena
- The nuclear energy debate in Australia
- Cryptocurrency
- Anti-competitive behaviour in Australia
- Australian economic issues post-COVID
- The decriminalisation of sex-work in Queensland
- The race to meet climate change targets in Australia
- The electrification of the global motor vehicle industry
- Different issue, negotiated with your teacher.

Plan

Your teacher will decide on the word count to be used in this task, and the presentation format they would like but a useful plan to follow regardless of which issue you discuss, could be:

(a) Background to the issue… brief history (a summary only) and current state of play or plan related to this topic.

(b) Cost-benefit analysis using a table perhaps in your planning to indicate private, external and social costs and benefits Graphical/statistical evidence will play a key role in your findings.

(c) Conclusion (brief).

Don't forget to include referencing!

Glossary terms

Some of the keywords we have used in this workbook include:

Potential, opportunity cost, land, labour, capital, enterprise, demand, supply, trade-offs, perfect competition, monopoly, monopolistic competition, oligopoly, competition, choice, efficiency, substitutes, expansion, contraction, confidence, complementary, exploitation, externalities, privatisation, resources, equity, regulation, leakage, injection, saving, investment, tariffs, embargoes, subsidies, protections, diversification, retaliation, specialisation, innovation, globalisation, gross domestic product, sustainability.

Aim not merely to 'think like an economist' but try to report like one, too! At least some of the above terms should be used appropriately in your response.

You can see from the issues suggested in this elective that Economics reaches into so many aspects of our lives and interests. Hopefully this introductory course has just whetted your appetite to learn more!

Guideline answers

Occasionally your responses may differ from those provided below. Check with your teacher. In Economics it is sometimes the case that alternative suggestions are possible. Your own idea may be quite acceptable, or at least worthy of discussion. You will sometimes be asked to think broadly outside the course, drawing on your common sense or life experiences. Have a try!

Using and analysing data

1. (a) Check graph with your teacher.

   (b) (i) Female part-time employment is significantly greater than that for males, maybe due to combining child-care and work for women, with males preferring full-time work and often in trades or the construction industry where full-time employment is more common.

   (ii) If economic growth slowed over this period, firms may have cut workers hours, or new employees may have been taken on in part-time positions until conditions improved. Other reasons are possible. Discuss with your teacher.

   (iii) People of working age who are not working at all may be studying, or have given up the search for work (e.g. those over 50 finding it hard to get back into the workforce if they have been made redundant). Others may be at home bringing up children or unable to work through health reasons. Some may have taken early retirement.

   (iv) Male full-time employment may have fallen due to the loss of jobs in traditional male areas (e.g. agriculture and manufacturing) which have accompanied technological change. Demand in other areas has risen, e.g. in retail, hospitality and health care, some of which may be favoured by females (e.g. child care and elder care).

   (c) Discuss with your teacher.

2. (a) Economic growth peaked most recently in Westeros in 2021.

   (b) The most recent prolonged period of economic weakness was 2016–19 when economic growth fell from approximately 5% to 1%. Weak growth continued through the COVID-19 pandemic.

   (c) e.g., maybe a loss in confidence affecting spending, maybe unemployment rising, perhaps widespread profit downgrades, maybe global uncertainty/conflicts.

   (d) Tax cuts could give consumers more disposable income, leading to increased spending and economic growth.

3. (a) Maybe the visitors economies are doing well, with wages increasing, perhaps the exchange rate of Essos is depreciating (falling), making it cheaper to visit, perhaps there has been a successful advertising campaign attracting more tourists in to Essos.

   (b) Advantage (or 'benefit'): greater income flowing into Essos leading to more jobs, increased tax revenue for the government, and increase in the economic growth of Essos

   Disadvantage (or 'cost'): greater strain on existing resources (e.g. water, infrastructure), maybe environmental destruction.

4. (a) It is an indirect, or inverse relationship. That is, as the economy grows, with greater production of goods and services, it can be seen that unemployment falls. As sales increase stocks run down. and more labour may be needed to satisfy the increase in demand. You can see the reverse taking place, too.

   (b) The downward trend in 2023 was due to a range of factors, particularly the interest rate increases which occurred in Australia in the previous year. Rents, mortgages and the cost of living rose during this period, reducing household disposable income and spending on non-essentials.

   (c) Individual: e.g. less hours at work, less jobs, drop in personal disposable income, costs more to borrow for the house or car etc, less confidence about the economic future, possible decrease in consumption, decrease in standard of living.

   Firms: less spending by consumers and taking on less workers or decreasing hours of existing workers as stocks build up. Less confidence over future profit likelihood thus less likely to take on new loans for expansion.

   Government: worsening in economic goals as unemployment starts to rise and the economy contracts. Decreased tax revenue from GST on purchases and income tax from jobs to enable less fulfilment of collective wants, like better infrastructure, unless the government runs a budget deficit.

5. (a) Rents still rose between 2008 and 2010. The **growth** in rental increases fell.

   (b) Discuss with your teacher. Hint: the global COVID-19 pandemic took hold during this period.

6. (a) Economic activity declined through the COVID-19 pandemic, as jobs were lost and consumer confidence declined. After the pandemic, many costs rose due to global supply issues and rising interest rates, which slowed consumer spending.

   (b) The Christmas holiday period each year shows a marked increase in retail spending.

   (c) In the first quarter of 2024, online retail sales totalled approximately $4,000 million, a doubling of the total from February, 2020. A 'winner' of this increase is consumers exposed to more choice and possible lower prices from online purchases. A 'loser' could be the 'bricks-and-mortar' retail shops who are suffering from this new competition.

7. (a) Check graph with your teacher.

   (b) (i) On $50,000 your income tax liability is $5,788

   (ii) On $100,000 your income tax liability is $20,788

   (iii) On $200,000, your income tax liability is $56,138

   At each level it would actually be more because an extra payment for Medicare is levied on all residents with a taxable income over above $26,000 p.a.

   (c) A progressive income tax system is designed so that the wealthy pay proportionally more than the poor. This is considered a fair system as a flat rate of 20%, for instance, would hurt the poor more than the rich. It could be argued that the wealthy are likely to be consuming more government services than the poor, and should be liable for more tax. On the other hand, it could also be argued that such a system discourages people from working hard as they could lose proportionally more than previously if they move into a higher tax bracket. Many ideas are possible here – check with your teacher.

   (d) This may or may not be true. A number of factors should be considered including the ages distribution of the citizens, whether they are supported by the incomes of others (as in the case of the young), and the government assistance offered to low income earners in Australia (e.g. the JobSeeker allowance for the unemployed, Family tax benefits, and the aged pension for the elderly). Don't be too quick to jump to conclusions!

8. You can see that the dates are not in sequential order. They have been shifted to provide the trend the producer of this material wanted.

Economic decision-making

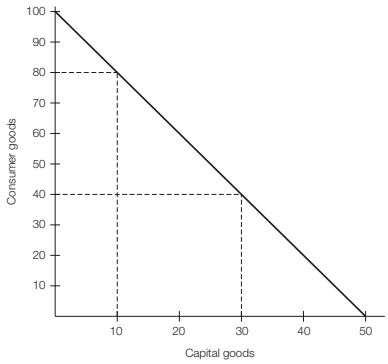
1. (a) Opportunity cost relates to the alternatives foregone – what is given up when a choice is made.

   The production possibility frontier shows the maximum which potentially could be produced from various combinations of two goods or services.

   (b) The assumptions are that resources and technology are fixed, and that only two combinations can be produced.

   (c) Your own graph may look different, depending on the scales you used. Check with your teacher.

   Production possibility model



   (i) As can be seen from the graph above, increasing consumer goods from 40 to 80 will mean the loss of 20 capital goods (30 – 10).

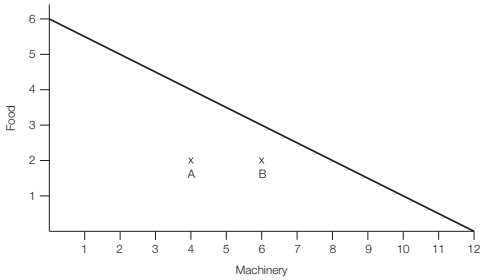
   (d) (i) Neither A nor B is necessarily better, as in both situations potential is being maximised.

A

(ii) Resources are being wasted at point C, as more of both apples and oranges could be produced without any opportunity cost.

(iii) It is impossible to be at point D, as it is beyond the maximum resource combination possible with existing resources and technology.

(e) Production possibility model



(i) See the graph above for the position of point A. At this point resources are not being fully utilised in relation to either food or machinery.

(ii) Point B can also be seen above. No opportunity cost was involved in the increase of machinery from 4 units to 6, as resources were previously not fully utilised. This still remains the case.

(f) Answer is M.

(g) (i) The opportunity cost is all of the other things you could have been doing with your time instead of going to the movies.

(ii) This could change over time as your preferences – and the cost of the movie tickets – changes.

(iii) Your friend will have different preferences and possibilities with her time.

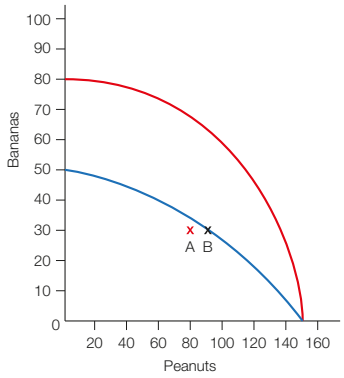
(h) Answer is J, 20 oranges.

2. (a) Answer is K.

(b) Answer is J.

(c) Answer is M.

(d) (i) Production Possibility Curve for Bananas and Peanuts



(ii) See graph above for the new curve.

(iii) Potential output for peanuts is unchanged.

(iv) The potential for bananas could improve if resources or technology increase, e.g. a new, longer-living variety of bananas is discovered, or pesticides are invented which kill the insects who destroy the banana crops.

(v) The frontier could shift to the left, e.g. if resources or technology are lost, e.g. through a flood, drought or cyclone.

(vi) See point A on the graph above.

(vii) There is still the potential to produce more peanuts and/or bananas. Efficiency is not being maximised.

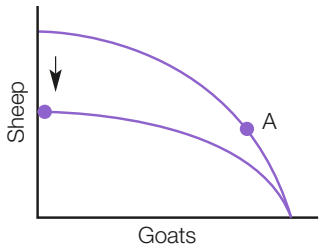
(viii) No, news such as this will change demand. It does not change potential, therefore the frontier will not shift.

(ix) Farmer Finnegan could increase production of peanuts from 80 to 150 units, but he will lose the possibility of producing bananas, as can be seen on the graph.

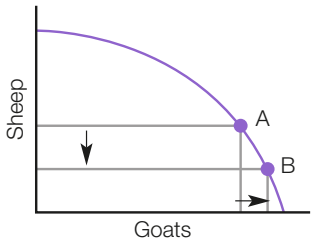
(x) See point B on the graph above.

(xi) There is no opportunity cost.

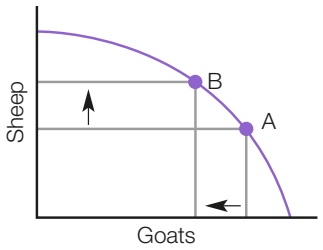
(e) (i)



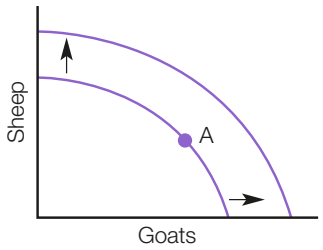
(ii)



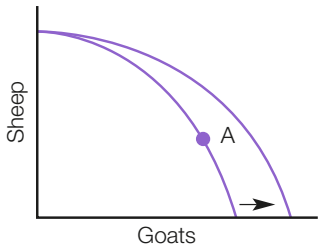
(iii)



(iv)



(v)



3. (a) Create your meme.

(b) Class discussion on trade-offs.

4. Individual research. Discuss with your teacher.

5. Economic terminology:

(a) A private cost or benefit is experienced by the decision-maker, e.g. the government in the case of spending decisions announced relating to road-rule changes, lowering speed limits.

(b) External costs and benefits are experienced by those other than the decision-maker, e.g. drivers, in relation to the example in part (a).

(c) Social costs and benefits include both private and external costs and benefits and affect society as a whole. In our example above, maybe setting speed limits lower would mean less accidents and road-related deaths, leading to significant social and economic benefits.

6. (a) Many state governments have made this decision. With sales totalling over $27 billion annually, the governments could gain tax revenue from this new source if they have a goods and services tax. On the other hand, a private cost could relate to the increase in hospital presentations due to overdoses, thus the state government may experience a drop in popularity amongst the population unless they incur a financial cost in increasing the staff/resources required in public hospitals to deal with the influx of new patients. The government may also incur a private cost at the ballot box if votes try to overturn this legislation.

(b) Groups who may incur external costs include emergency hospital staff, and perhaps households affected by the increase in crime as a result of the relaxation of the laws. On the other hand, producers of cannabis and retail shops selling the product will experience financial benefits. Individuals who smoke marijuana for social or medical purposes will be able to do so without breaking the state laws.

(c) Responses will both be in favour and against. Either justified viewpoint is acceptable.

(d) Difficulties in the use of cost–benefit analysis include identification, measurement, time and distribution. A number of possibilities include the difficulty in measuring the costs of the legalisation as few surveys have been undertaken to identify and then measure if there is a correlation between the increase in violent crime and the relaxation of the cannabis laws. There is also the issue of time to consider, as it is not yet proven if the legal change has led to an increase in addictions and possible future cost increases in public health.

7. Check your response with the theory in the section on trade-offs.

8. Inquiry – individual report. Consult your teacher.

Markets in action

1. (a) Economic terminology:

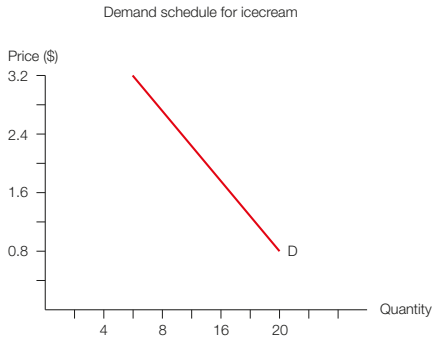
   (i) A market is an exchange between buyers and sellers.

   (ii) Demand refers to being willing and able to make a purchase of a good or service

   (b) As prices of a particular good or service rises, consumers are likely to be less willing to make that purchase, holding other factors constant (ceteris paribus).

   (c) Items increasingly demanded over the last few years include batteries, solar panels, chargers, smartwatches, and subscriptions to streaming services. Many other suggestions are possible.

   (d)



   (e) Demand fell through reasons such as employee loss of income as businesses were locked down, a fall in confidence, business failure and uncertainty by banks to lend in unstable times. Other suggestions are possible.

2. Economic terminology:

   (a) A contraction in demand occurs when there is an increase in price of the item being plotted. There is a decrease in the quantity demanded of that item.

   (b) An expansion in demand occurs as a result of a fall in price of the item being plotted. There is an increase in the quantity demanded of that item.

3. The higher the price the **less** will be the quantity demanded.

   Demand means being will and **able** to make a purchase of goods or services.

   A general rise in incomes would probably lead to **increase** in demand.

   An expansion in demand occurs when there has been a **decrease** in price of the item being plotted.

   A rise in price of the item being plotted brings about a **contraction** in demand. Remember: not decrease.

   If the price of lamb halves, there will possibly be a **decrease** in demand for beef, as consumers are likely to be attracted to the cheaper alternative.

4. (a) Check your graph with your teacher.

   (b) When reading from D_1, at $1.75, 80 cartons are demanded. When reading from D_1, for a producer to sell 60 cartons of milk, the price needs to be $2.

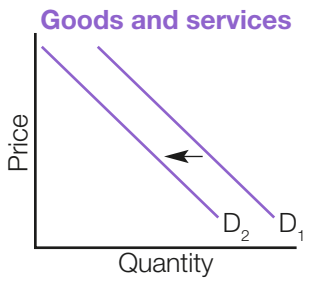
   (c) You have shown this on your curve.

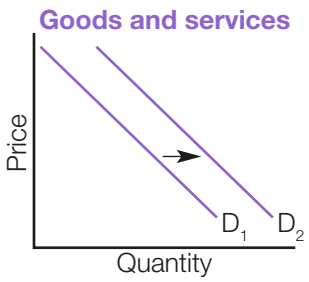
   (d) At D_1, at a price of $1.25, 120 cartons were demanded. At D_2, 40 cartons are demanded.

   To sell 60 cartons, the price now needs to be $1.00.

   (e) An increase in demand for milk could come from factors such as a successful advertising campaign by producers, an increase in the number of young children, schools deciding to provide milk at recess times, a positive media release regarding milk… there are many suggestions possible.

5. Changes to the demand curve:

(a) 

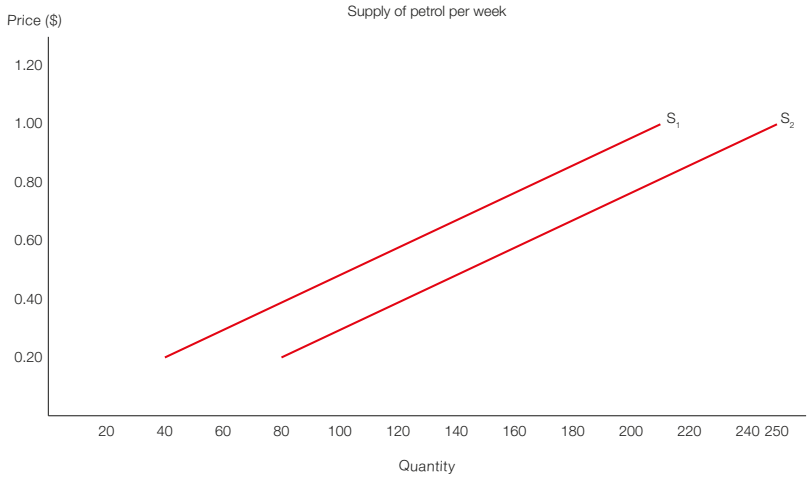
(b) 

(c) 

6. Answers will vary. Many suggestions possible, e.g. relating to pants legs width, dress lengths, sports shoes, jackets. Items becoming more or less popular vary from year to year and thus are not mentioned here.

7. Answers will vary. Complementary goods relating to fashion items may include belts with pants or dresses, socks with sports shoes, dry-cleaners with Formal outfits.

8. (a) Supply of petrol per week



(b) This is shown on your graph – the new curve.

(c) Because of the decrease in the cost of crude oil there is an increase in supply. Suppliers will theoretically be willing to supply more petrol than previously at the same price

(d) Many answers possible. A decrease in the supply of bread could be caused by increased wages for bakery staff, an increase in the cost of raw materials such as flour and electricity, an increase in the rent of bakery premises, and an increase a goods and services tax on bread.

9. (a) K

(b) L

10. (a) At $20, 10-11 helmets would be the quantity supplied.

(b) If the price rose to $30, 15-16 helmets would be supplied.

(c) There has been an expansion in supply of helmets.

(d) Many answers possible. A fall in the cost of any of the factors of production (land, labour, capital, enterprise), could mean that a producer would be willing to supply more of bicycle helmets at the existing final price.

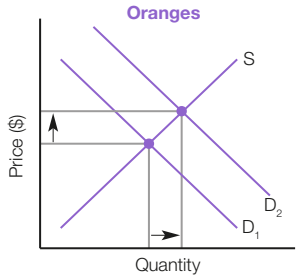
11. (a) Economic terminology:

(i) At the equilibrium price and quantity, quantity demanded and quantity supplied are equal. The desire of consumers are producers are both being met. There is no tendency for price to change.

(ii) A shortage occurs when demand exceeds supply. Price will increase to a new equilibrium position.

(iii) A surplus occurs when supply exceeds demand, causing a new, lower equilibrium price to be attained

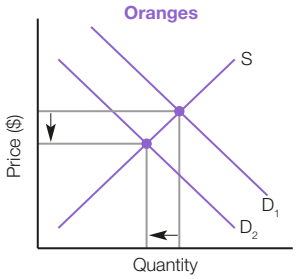
12. (a)



The price will **rise.**

The quantity will **increase**

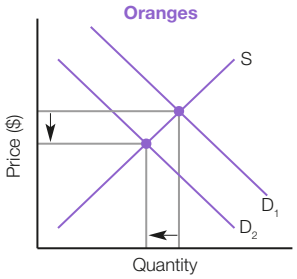
(b)



The price will **fall.**

The quantity will **decrease**

(c)



The price will **fall.**

The quantity will **decrease**

13. (a) At point A, the equilibrium price is $1.50, and the equilibrium quantity is 400.

(b) They are willing to supply another 200 (600 minus 400).

(c) There are 400 packets of brekkybix demanded by consumers.

(d) A surplus of 200 exists.

(e) The price will fall as producers try to clear their stock and improve their cash flow.

(f) The equilibrium price is now $1.00, and quantity demanded and supplied is 500. This is the point at which S_2 and D intersect.

(g) Many answers possible, linked to a decrease in costs relating to the factors of production, land, labour capital or enterprise.

14. (a) At point A, the equilibrium price is $1.50 and quantity is 400.

(b) Supply would now be 200.

(c) Demand remains at 400.

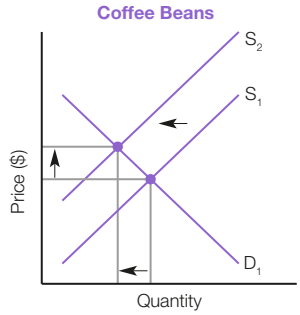
(d) A shortage of 200 has been created (400-200).

(e) The price will rise.

(f) Demand will contract by 100 to the new equilibrium position.

(g) The new equilibrium price is $2.00, and quantity demanded and supplied is 300.

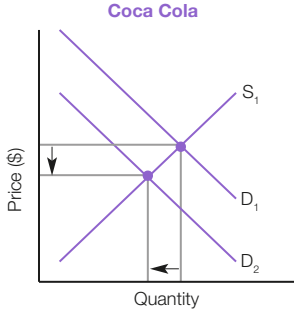
15.



The price will **rise** The quantity will **decrease**

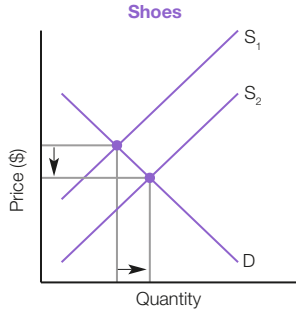
16. (a) Graph and explanation provided in text.

(b) Pepsi runs a highly successful advertising campaign (Pepsi is a substitute for Coca Cola)



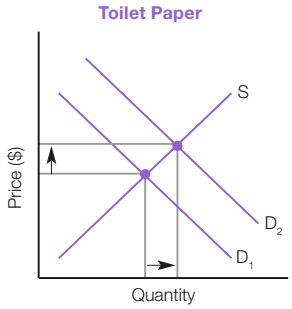
The price will **fall** The quantity will **decrease**

(c) The price of leather falls – leather is a raw material for the making of shoes



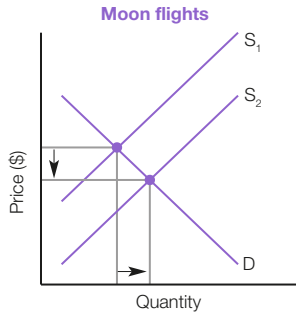
The price will **fall** The quantity will **increase**

(d) Consumer feared further restrictions on shopping, and stockpiled basic common goods including toilet paper.



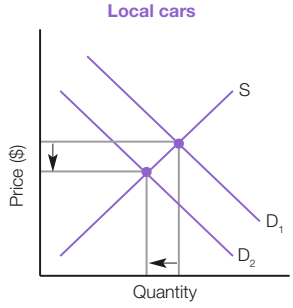
The price will **rise** The quantity will **increase** (though, notice short term shortages at the original equilibrium position evident until supply can, and did expand).

(e) Technological advance – the cost of supply will decrease.



The price will **fall** The quantity will **increase**

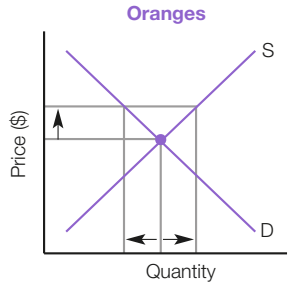
(f) Tariffs done away with on imported cars – imported cars will be cheaper. Demand for the substitute, locally made cars, may decrease.



The price will **fall** The quantity will **decrease**

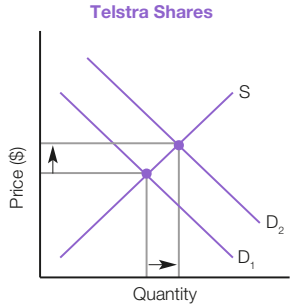
A

(g) The price of oranges doubles



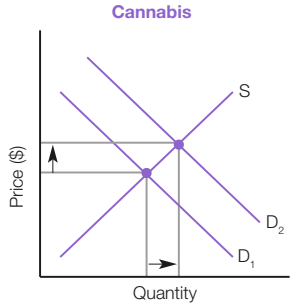
The price will **rise** The quantity demanded will contract and supply will expand – A surplus will be created. Remember that a change in the price of the item being plotted does not result in a new curve.

(h) Rumours spread that Telstra is about to announce a record profit – a higher dividend may be paid to its shareholders. The company becomes more attractive to potential investors.



The price will **rise** The quantity will **increase**

17. (a) Relaxation of cannabis laws



The price will **rise** The quantity will **increase**

(b) There has been an **expansion** in supply. As the increase in demand has driven the equilibrium price higher, suppliers are willing to supply more to meet the increased demand and increase their likelihood of profits. There is **not** a new supply curve.

Government involvement in the economy

1. Discuss with your teacher.
2. Discuss parts (a) and (b) with your teacher after watching the YouTube clip.
3. (a) Economic terminology:

   Consumer sovereignty relates to the power of consumers in the market place; they exhibit this power regarding what producers provide by voting with their dollars in displaying their purchasing preferences.

   Capitalism relates to the market economy, where consumer preferences determine the 'What' to produce question, where producers choose the most cost-effective methods on production ('How' to produce), and where the 'For Whom' question is answered by those with the greatest incomes earning the largest share of goods and services.

4. (a) L

   (b) K

   (c) K

   (d) J

5. (a) and (b) Your own experiences to be shared.
   (c) In a command economy the state is the major producer. Since the government determines what will be produced, sets prices and earns the income from sales, there is nothing to be gained from using questionable tactics to encourage a consumer to stick with a particular brand.
   (d) A range of answers are possible. Discuss with your teacher.
6. Inquiry – share your findings with your teacher.
7. Students to calculate % of total and construct two pie charts of anticipated revenue.
   (a) (i) A pie chart readily shows the importance of each category in relation to the total, 100%. A bar graph of raw figures shows differences, certainly, but there is not the same connection regarding the share of the total. Using percentages enables ease of comparison between periods.
   (ii) Suggestions could include stronger economic growth than anticipated or greater tax revenue from exports (e.g. iron ore).
   (iii) The lockdowns associated with the COVID-19 pandemic meant less imports were able to be shipped to Australia and transported between the states.
   (b) Discuss your findings with your teacher.
   (c) Discuss each component with your teacher.
8. Students to calculate % of total and construct two pie charts of anticipated expenditure.
   (a)-(d) Discuss your findings with your teacher.
9. Media search – discuss your findings with your teacher.
10. People save to spend at a later date. We call this 'deferred consumption'.
11. L
12. Check with your notes on consumption and savings – the points provided are relevant to both.
13. (a) Consumption (the purchase of the land)
   (b) Savings
   (c) Investment (building up of stock to sell at a later date)
   (d) Investment (Briony buys new premises to increase profit capital expenditure)
   (e) Consumption
   (f) Investment (capital expenditure to increase potential customers and help increase profit)
   (g) Consumption
14. (a) False, (b) False, (c) True, (d) False, (e) False, (f) True, (g) False, (h) False, (i) True, (j) True
15. (a) and (b) Discuss your findings with your teacher.
16. (a) exports, (b) taxation, (c) households, (d) savings, (e) injections, (f) investment, (g) consumption, (h) government, (i) financial, (j) imports, (k) resources, (l) firms
17. (a) Exports of wool may fall – more expensive with an appreciating AUD
   (b) Our demand for imports may rise with consumers having increased personal disposable income
   (c) Exports may fall – China needs need less of our commodity raw materials
   (d) Our demand for Porsche or BMW imports may rise, but overall this will not change total import spending on cars as they are no longer produced in Australia.
   (e) Demand for our exports may fall – our output may become more expensive with increased inflation
   (f) Demand for our exports may fall with increased global uncertainty and asset prices falling. Australians also may demand less imports if consumer and business confidence falls in relation to future spending decisions.
   (g) Demand for our wine exports is likely to increase as Australian wine will be cheaper for Chinese buyers.
18. Check with the flowchart Figure 4.5 on page 65.
19. Household consumption is just one component of economic growth, even though it is the major component in Australia. The other sectors of the economy are firms, the government and the overseas sector. The statement 'Economy goes backwards' is incorrect.

Trade in a global economy

1. (a)

Term	Description
Taxation concession	Financial benefit derived by primary producers for environmental land-care projects
Local design rules	All new passenger vehicles sold in Australia must be fitted with air bags
Quota	In the Australia/USA free trade agreement, limits have been imposed on the export of Australian beef until 2023.
Quarantine restrictions	Prohibition on any flyer bringing plant or food matter into Adelaide airport.
Local content specification	The tender to provide South Australia's $300 million bus project requires 15% Australian provision of parts
Tariff	The import of a car with a value of approximately $70,000 or more attracts a 33% tax in Australia
Embargo	The USA's ban on trade with Cuba
Subsidy	A maximum of $6.50 which concession-card holders pay on approved Public Benefit Scheme medicinal drugs.

   (b) and (c) Discus your findings with your teacher.

2. Discuss your findings with your teacher.
3. Discuss your findings with your teacher.
4. Discuss your findings with your teacher.
5. Borgen: if it didn't produce motorbikes it could produce 12 cars. To produce 1 car costs it 60/12, that is 5 motorbikes.

   Elthan could produce 42 cars if it didn't produce any motorbikes. The production of one car is costing Elthan 1.67 (70/42) motorbikes. Elthan has the lowest opportunity cost in the production of cars as it gives up just 1.67 motorbikes to produce cars, whereas Borgen gives up 5 motorbikes.
6. Economic terminology:
   (a) Economies of scale refers to the fact that firms have some fixed costs (like rent or machinery), hence the greater the production (output), the lower the cost it is to produce each unit. This is true up to the point where production is being maximised (machines running 3, 8 hour shifts a day, for instance).
   (b) Comparative advantage refers to the benefits to be gained by specialising in producing an item which involves losing least alternatives by making that decision. In other words, specialising in whatever involves the lowest opportunity cost. By specialising and trading, and importing an item which has a higher opportunity cost, both parties gain.

7–16. Discuss your findings with your teacher.

Elective scenario – Global poverty

1. World Poverty Clock – check your findings with your teacher.
2. (a) (b) and (c) Check your findings with your teacher.

   (c) (i) It is important to check the details – the year, the currency, the rounding up, whether the results are current or adjusted for inflation ('constant' or 'real'). You can see that what may be apparent at first impression (the higher GNI in Türkiye), may not prove that it is a wealthier country once the population is considered. It must also be remembered that per capita GNI doesn't mean that everyone in the country is receiving that monetary value of goods and services, plus taxes, cost of living, plus social welfare need to be considered.

   (iii) Care is needed in analysing results. Raw data may give misleading interpretations.
3. Individual inquiry – share your findings with your teacher.
4. Economic growth figures are useful as a guide only. They don't take into account the taxation structure of that country or what the GNI/GDP is used for, as it may be used largely for military purposes, for instance, and little provided in collective wants for the population. As well, countries governments have vastly differing policies towards health and education, which may mean significant costs for citizens. Other factors like gender equality and job opportunities affect standard of living. Check with your teacher if you have made other suggestions.
5. Check your viewpoint with your teacher.
6. YouTube clip – share findings with class.
7. Individual inquiry – share your findings with your teacher.
8. Check with your teacher the inclusion of data you have found onto the graph in this workbook (page 87).
9. Under the command system the state owned most of the resources – businesses and land amongst them. The state could therefore control the wages which were received by workers. Skills were valued more equally than in our society, based on the maxim of Karl Marx 'from each according to his ability, to each according to his needs'.
10. Individual inquiry – share your findings with your teacher.
11. Discuss your summary with your teacher.
12. Share your viewpoint with your teacher.
13. Group presentation.
14. (a) Most recent figure for low-income country status – check with your teacher.

    (b) Cycle of poverty – share with your peers.
15. Cost/benefit analysis – check with your teacher.
16. Podcast.
17. Individual inquiry – share your findings with your teacher.
18. Individual inquiry – share your findings with your teacher.
19. Individual reflection – share your thoughts with your peers.

Effective scenario – Bringing it all together

Responses in this elective will be considered in conjunction with your teacher.