

**Year 12**



**Economics**

# ECONOMICS

Year 12



GOVERNMENT OF SĀMOA  
MINISTRY OF EDUCATION, SPORTS AND CULTURE

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# Introduction

This book has been written for students who are studying Economics at Year 12 in Sāmoa. It will cover all the achievement objectives as set out in the Economics Year 12 curriculum statement.

The book is structured so that it is easy for students and teachers to follow. Each unit will commence with the aims of what the student should be able to do on completing the unit, followed by an overview or introduction to the key ideas in the unit. The information on the topics covered in each unit will include different texts, such as graphs, diagrams and case studies to explain the economic concepts and illustrate economic ideas more clearly. Each unit will also include activities to help students to understand concepts and ideas in more depth.

This book revises some topics covered in previous years. Therefore students who are studying economics for the first time may need help with some economic concepts and ideas, which they are assumed to already understand.

*Economics Year 12* should not be used in isolation but rather together with other textbooks, classroom notes and assignments. Economics is an academic subject and students need to be familiar with the economic ideas and language or the skills learned in other subjects such as Business Studies.



# Economics - The Basics

## Aims

On completion of this unit you should be able to:

- ☐ Understand that economics is the study of how people satisfy their unlimited wants using limited resources;
- ☐ Explain how scarcity results in people having to make choices to satisfy their needs;
- ☐ Explain the relationship between choices and opportunity cost;
- ☐ Distinguish between free and economic goods.

**Economics** is the study of how people and organisations use their limited resources to satisfy their unlimited wants. The situation that is created when this occurs is called **scarcity**. Therefore, **economics is the study of scarcity**. 'Resources' is the general term which describes what people use to satisfy wants. For example, resources can be inputs used in the production process, such as raw materials, labour and capital. A full description of different types of resources such as **factors of production** was discussed thoroughly in previous years.

As people cannot satisfy their wants with the limited amount of resources available to them, they must choose which wants to satisfy. As people make a choice, the next best alternative is not chosen. In economics, the best alternative not chosen, is called the **opportunity cost** of the decision.

## UNLIMITED WANTS – LIMITED RESOURCES

**Scarcity:** When there are not enough resources to satisfy the desire or want for it. People must choose which wants they will satisfy. Thus scarcity leads to:

**Choice:** A decision between all the alternatives available. When a choice is made, the second choice is known as the opportunity cost. All choices result in an . . .

**Opportunity cost:** The next best alternative that is not chosen.



## Free Goods And Economic Goods

An **economic good** is scarce and thus it will have an opportunity cost. Most goods are economic goods.

A **free good** is not scarce and therefore it will not have an opportunity cost. There are very few free goods. Fresh air in Sāmoa is an example of a free good.

The person who stays in the public hospital when he or she is sick does not pay for the stay but the taxpayer pays for the doctor's services and the doctor's services are an economic good.

### Activities

Copy and complete the following activities in your book:

- 1 Explain the link between scarcity, choice and opportunity cost.
- 2 Identify a possible opportunity cost for each of the following:
  - a choosing to play rugby
  - b going to a movie on Saturday night
  - c choosing to study for four years at a university in New Zealand
  - d buying a car
  - e joining a volunteer group.
- 3 Identify which of the following are free goods and which are economic goods:
  - a seawater at the beach
  - b sand at the builder's site
  - c water in taps
  - d fresh air in Sāmoa
  - e bottled oxygen for asthma patients
  - f sand at the beach.

# Business Structure

## Aims

On completion of this unit you should be able to:

- ☐ Distinguish between ownership and management;
- ☐ List the features of a sole trader, partnership and company as they relate to the ownership and financial structure of a business;
- ☐ Describe the features of centralised and decentralised management structures and prepare and interpret an organisation chart for each;
- ☐ Describe the types of financial arrangements appropriate to the establishment of a business and its expansion.

## Overview

Businesses come in all shapes and sizes. They are organised in many different ways according to the needs of the particular business and the way it has developed since it was established. The ownership and **financial structure** of a business are closely linked. As businesses expand, the need for finance often increases, and as a result the **ownership structure** may change to increase the number of people with a financial interest in the business. The **management structure** often reflects the style and philosophy of the business owners. Some owners like a team approach, where a group of people, each with a particular skill, work together to run the business. Other businesses have just one person who manages everything.

## Ownership And Management

### Ownership

The ownership of a business determines who receives the profit, who has the authority to make management decisions, and who is responsible for any debts the business may incur. The owners of a business contribute their own money and expect a share of profit in return for the risk they take. They are not necessarily involved in management decision-making but may have delegated this responsibility to others who are accountable back to them for those decisions.

## Management

Managers are involved in the day-to-day running of the business and have four basic responsibilities: planning for the future; organising all the necessary resources; directing – putting plans into action and controlling the business's performance; making corrections where necessary.

## Ownership Structures

### Sole trader

A **sole trader** is the simplest form of business organisation. It allows one person to run a business as they see fit and to enjoy the benefits in terms of flexibility and profits. People who set up business as a sole trader must have the necessary motivation and skills to carry out a wide range of tasks.

A sole trader has the risk of **unlimited liability**. This means that the owner may need to sell his or her own assets (house, car, etc.) to pay back the debts of the business if the business fails.

### Partnership

A **partnership** is a business organisation with two or more people who share the responsibilities, risks and rewards of business. In Sāmoa there is legislation covering such agreements (the Partnership Act 1908) which is the same legislation used in New Zealand. An advantage of a partnership is that it allows people to specialise in the area of business activity where they have experience, an interest or expertise. Combining the skills of several people often makes the business more successful and outweighs the disadvantage of having to share business profits with other people.

Partners also have **unlimited liability**.

### Company

In Sāmoa, as in other countries, a **company** is a separate legal entity. Unlike a sole trader or partnership a company can owe money, be sued and have an identity of its own. For example, if the advertising done by Pay Less Gumboots (a business owned by sole trader Iole Wilson) was seen to be misleading and unfair this business may be taken to court. The case would be known as 'The People vs. Iole Wilson', not 'The People vs. Pay Less Gumboots'. It is the owner not the business that is taken to court. However, if a company gets involved in unlawful activity the company not the owners will be prosecuted. This is an important difference between a company and a sole trader or partnership.

A company is a business operation that is registered with the Registrar of Companies under the Companies Act 1993. A company must have at least one director, one shareholder and one share. If the company needs funds for business development and expansion, it can list with the stock exchange and sell shares to the public. The owners of a company, the shareholders, vote at the Annual General Meeting and appoint the Board of Directors. The directors are responsible for the smooth and wise operation of the business. Unlike a sole trader or partnership a company has **limited liability**.

A company is a more complex and expensive structure to establish.

## Limited liability

**Limited liability** provides financial protection for the shareholders (owners) of a company. If the business fails, the owners of the company can only lose the money they have contributed to the company in payment for shares. This means that the private assets of shareholders cannot be sold to cover the debts of the company if it fails.

Some people think that limited liability would encourage companies to take bad risks because of the financial protection available. Partly for this reason, the Companies Act puts more responsibility on the directors to be wise in the decisions they make.

## The share market

The shares of publicly listed companies can be bought and sold at the share market or stock exchange. When first established, a stock exchange was an opportunity for individuals to become a part owner of a company in the hope of receiving a share of the profits, known as a **dividend**. While this is still true, the stock exchange has also become a place to speculate on the value of company shares.

## Management structure

The **management structure** often reflects the style and philosophy of the business owners, as well as the expertise necessary to manage a business of that size and type. The two recognised types of management control are shown in the organisational chart below and on the following page.

The organisational chart of a business shows lines of responsibility in two ways. When working from the top to the bottom, the chart shows who is responsible for each different area or group of people. When looking from the bottom up, we learn to whom each employee must report (who they are accountable to).

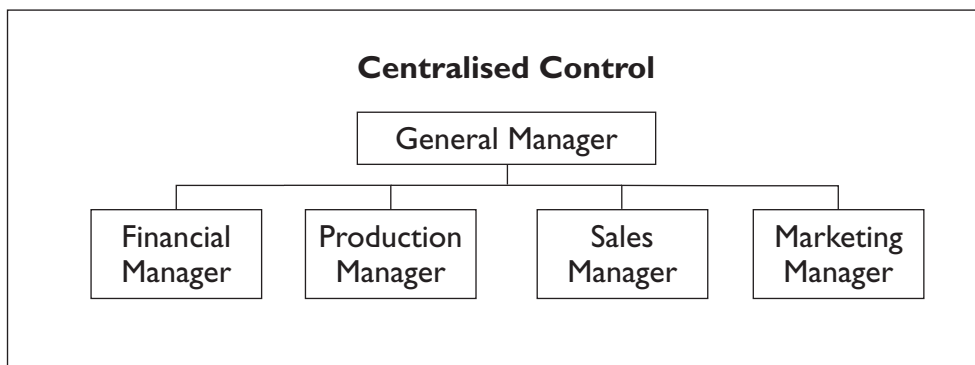


Figure 2.1 Centralised control structure

The flatter the structure, the more control the General Manager has over decision-making in a **centralised control structure**.

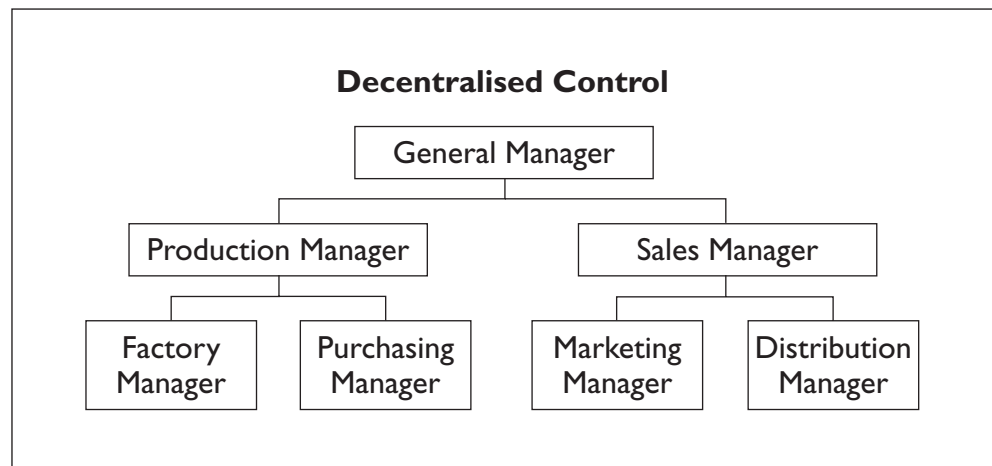


Figure 2.2 Decentralised control structure

In a **decentralised control structure**, the decision-making is delegated to (spread over) other managers.



Figure 2.3 ANZ Bank

## Business Finance

When a business is about to commence or needs additional funds for expansion, it can obtain funds from two places – internal (within the business) or external (outside the business).

An internal source of finance means the existing owners contribute their own money. A sole trader may consider forming a partnership or company. A partnership may consider taking on a new partner, combining with another business or forming a company and selling shares. A company may sell more shares.

An external source of finance is any funds which banks or finance companies provide. These institutions may be approached for an overdraft, loan, mortgage, or hire purchase and in return will demand payment of interest, and security over the assets of the business. If the business can't repay the amount borrowed, the financial institution can sell the particular asset(s) over which the borrowings are secured, and recover the amount they have loaned to the business.

It is important to match the type of funding with the purpose for which it is required. To do this, the business must consider how long the finance is needed for, the interest rate, and what type of security the financial institution requires. For example:

Table 2.1	
Purpose	Type of Funding
Purchase of a building	Mortgage
Holiday pay for employees	Bank Overdraft
Buy a delivery van	Term Loan/Hire Purchase
Buy a competitor's business	Issue shares, take on a partner

When a lender judges a venture to be a higher risk, a higher rate of interest will be charged and/or a greater amount of security over the assets of the business will be required.

## Activities

1 Match the terms in the box below with the phrases that follow.

ownership structure	management structure
financial structure	centralised management structure
sole trader	partnership
company	limited liability
dividend	decentralised management structure

- a A very flexible ownership structure where one person has control of the business and receives all of the profits – and takes all of the risks.
- b A management structure where one person makes all of the final decisions in a firm.
- c The relationship between finance received from owners and finance gained from outside of the firm.
- d An ownership structure which allows more than one person to contribute finance and skills to the firm, and profits (and losses) are shared.
- e The way in which a firm is organised in order to ensure smooth running of the business.
- f A management structure where decision-making is passed on to others.
- g In the event of business failure the owners will not have to use personal assets to repay business debts – they are only liable up to the full value of their shares.
- h At least one person and one share is involved in this type of ownership structure. The owners are protected from losing their personal possessions if the business fails.
- i The share of the profits received by shareholders.
- j Whether the firm is a sole trader, or is a partnership or a company.

2 **True or false?** State whether the following are true or false. If they are false, rewrite the sentences to make true statements. (Do not just change a negative sentence to a positive one or vice versa, but rewrite them.)

- a The ownership structure of a firm will determine where the finance for the firm comes from.
- b A business with one owner must be a sole trader.
- c Because of limited liability, the directors of a company are not personally responsible for the running of the firm.
- d In a business where the general manager is responsible for all of the final decision-making, a centralised management system is in place.
- e A company is a separate legal entity – it has responsibility in law and can owe money, be sued and has a character or identity of its own.
- f A company has unlimited liability – if the business fails, the owners are only liable up to the full value of their shares.



### 3 Ownership and management

- a Explain the difference between ownership structure and management structure.
- b Copy and complete the following chart in your book.

Number of owners	Advantages of this structure	Disadvantages of this structure
Sole trader		
Partnership		
Company		

- c Explain what is meant by 'a company being a separate legal entity'. Use an example in your answer.
  - d Describe the features of a centralised management system.
- 4 Read the text below and answer the questions that follow.

Eva Pereira Limited is a company which manufactures bowling balls. It is a family business and all the shares are owned by family members. Eva Pereira is the General Manager and she likes to have control over all the activities that are happening in the firm. There is an Accounts Manager, Sales Manager and Production Manager. These managers must check with Eva before they make any major decisions.

- a What type of management structure is in place at Eva Pereira Ltd?
  - b Draw up an organisation chart for Eva Pereira Ltd.
- 5
- a Explain why a firm may prefer a decentralised management structure rather than a centralised one.
  - b Explain why a firm may prefer a centralised management structure rather than a decentralised one.
- 6 Read the following text and identify one suitable way in which Aaron and Phillip could raise the finance in order to expand their business.

Aaron and Phillip Maka formed a partnership three years ago to open a toy shop. The business has grown and they have recently had the opportunity to purchase the building next door in order to expand their premises. However to do this they need to raise more funds.

- 7 Rewrite the paragraph below, filling in the gaps.

A business run from the top is said to have a \_\_\_\_\_ management structure. To remember this – c for centralised; c for \_\_\_\_\_. The decision-making is shared around in a \_\_\_\_\_ management structure. D for decentralised; d for \_\_\_\_\_. One reason people may change from a sole trader to a partnership or a partnership to a \_\_\_\_\_ is because of increased opportunities to raise (or obtain) \_\_\_\_\_.

- 8 Study the newspaper advertisement below before answering the questions which follow.

### ***For Sale***

*7-day owner-operated dairy*

*\$62 000 per week T/O, excluding VAGST*

- a Which phrase in the advertisement refers to the most suitable type of business unit for this dairy?
  - b Name the type of business unit.
  - c Explain the main disadvantage of this type of business unit.
- 9 Read the text below and answer the questions that follow.

Simi Ltd, in the centre of town, was opened 60 years ago this June. It is the only hardware store in the area and it is still owned and controlled by descendants of the founder. The grandsons of the founder are still active in the business. As directors they still promote the personal approach on which the success of the business was built.

- a What is the most likely form of business unit described in the extract?
- b Give the phrase that best describes your choice above.
- c State TWO advantages of Simi Ltd staying as a family concern rather than becoming a listed company.
- d State the most likely valid social, environmental and financial goals that Simi Ltd could have.
  - ☐ social goal
  - ☐ environmental goal
  - ☐ financial goal.

- 10 Study the diagram below before answering the questions that follow.

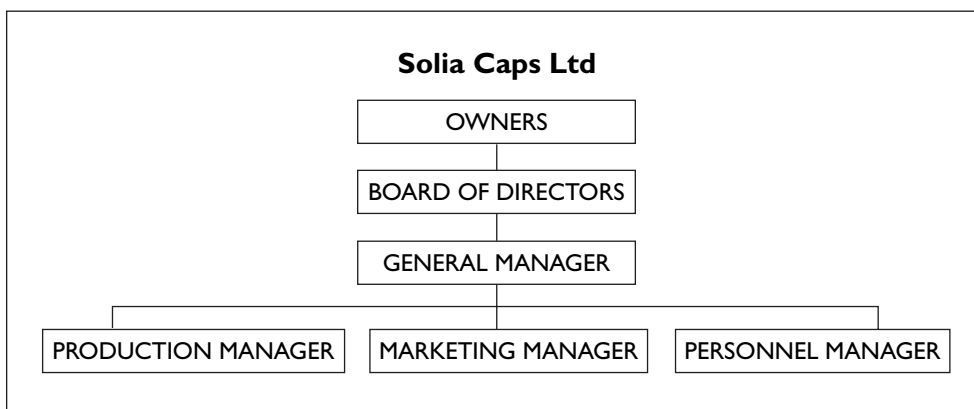


Figure 2.4 Management structure of Solia Caps Ltd

- a What type of business ownership does Solia Caps Ltd have?
- b What are the owners of Solia Caps Ltd called?
- c Name ONE position in the diagram which is an elected position.





- d Who would make decisions about buying a competitor's firm?
  - e Name the person responsible for the day-to-day running of the business.
  - f Write TWO or THREE sentences to explain why this business would need to keep accounting records.
  - g Name THREE different types of service that marketing firms would offer to Solia Caps Ltd.
  - h Work out the mean value of the sales of cap accessories when in one year it was \$160 000, the next year \$100 000, and \$30 000 in the following year.
- 11** Ana and Sara own and operate a small flower shop that sells flowers in a busy shopping mall. They employ three workers who report directly to them.
- a What type of ownership will their business have?
  - b To which sector of the economy does their business belong?
  - c Explain the two-way relationship between the owners and workers in this business.
  - d Draw the organisational chart for this firm.
- 12** Study the table below and answer the questions which follow.

<i>Table 2.2</i>	
<i>'Jane's Boats'</i>	<i>Jane's Personal Assets</i>
\$100 000 invested by Jane	\$400 000 house (fully owned by Jane)
\$200 000 borrowed from bank	\$100 000 invested in Jane's boats
\$100 000 invested by co-worker	\$10 000 car
	\$10 000 other assets
<b>Total value of assets: \$400 000</b>	<b>Total value of assets: \$520 000</b>

- a Which of the following is 'Jane's Boats' least likely to be?
  - ☐ Sole trader
  - ☐ Partnership
  - ☐ Company.
- b Unfortunately, after a year's trading, 'Jane's Boats' failed and went into liquidation. It was found that it owed \$200 000 to external creditors (non-owners) such as the bank, and the businesses who had supplied the boats on credit. What will the total value of Jane's personal assets be after the liquidation is complete, assuming she had limited liability?

## Service Industries

### Aims

On completion of this unit you should be able to:

- ❑ Describe the features of the transport, marketing, finance accounting and communications industries;
- ❑ Use the concept of interdependence to explain the relationship between individual firms and service industries;
- ❑ Identify the ways in which firms compete through price and non-price competition;
- ❑ Explain the advantages and disadvantages of non-price competition to both consumers and producers.

### Overview

**Interdependence**, two-way reliance, exists between firms and what we call **service industries**. These are also businesses and include firms in the transport, finance, accounting, communications and marketing industries. **Marketing firms** are involved in giving advice on the best way to compete.

Firms selling similar products in the same market will compete for customers using price or non-price competition. Price competition strategies involve reducing the price below your competitors so consumers will buy your product. Non-price competition involves strategies other than price to persuade customers to buy your product.

### Interdependence, Dependence And Independence

The concept of interdependence is central to our study of Economics. Interdependence occurs whenever there is a situation of two-way reliance. For example, an actor needs a camera operator so a movie can be made and the camera operator needs the actor for something to film. Interdependence means a 'need each other' situation.



Figure 3.1 Film set

When one person or group needs another (a 'one-way' situation) it is called **dependence**. Where there are two or more people or groups and none of them need each other, we have a situation of **independence**.

Businesses at all levels of the production process, (primary, secondary and tertiary) rely on service industries to maintain their day-to-day operations. It may be that a farmer needs a transport operator to take produce to the markets, or a bookcase manufacturer needs financial assistance to expand a factory, or a new hair salon needs expert help to set up a telephone, fax and email system. In the above examples, the farmer, bookcase manufacturer, and hair salon are the business enterprises – while the transport operator, financial assistance firm and communications consultant are the service industries. They need each other.

The service industries of transport, accounting, finance, communications and marketing offer expertise and support to firms involved in the production process. The business firms provide income to the service industries in return for their help. We will see again and again that individual firms and the service industries are interdependent.



Figure 3.2 Cargo trains

## Transport

The transport industry involves firms offering passenger or freight transport using one or more of the following: road, rail, sea, air.

Historically, water-based transport has been very important. Settlements were established on riverbanks and near harbours. Consider the position in New Zealand of Lyttelton, Wanganui, Russell and Huntly. They are towns near waterways. Because New Zealand exports primary produce (especially wool, meat, and dairy products) it has found sea transport very important. Sea transport is slow, relatively inexpensive, and requires harbour facilities. It is ideal for heavy and/or bulky non-perishable items.

Road transport has developed greatly since World War II. Although cars and trucks were used earlier in the 20th Century, the standard of roads was often poor and the supply of fuel often uncertain. Road transport offers door-to-door, personal service.

About 200 years ago there was a period of huge industrial development in Europe. A major change during this 'Industrial Revolution' was the introduction of the railway network. Rail transport became the main form of transport for people and freight in many parts of the world. Today, rail is still widely used for heavy and bulky non-perishable products travelling a reasonably long distance especially from or to inland centres.



Figure 3.3 Air transport

Air transport has made the world even smaller! Many producers of small perishable products, for example flowers and some fruit, depend on air transport to deliver their produce to international markets. The key advantage of air transport is the speed at which goods are delivered.

When deciding on the most appropriate type of transport to use a producer should consider speed, cost, reliability, safety and convenience.

### Case Study – Transport

Timu's Plantation grows cacao beans at Lotofaga. It relies on road transport provided by Simi Truck Ltd to deliver all it produces to the port of Apia where it is shipped to Japan. Simi Truck Ltd relies on Timu's Plantation to pay for the use of its road services, and thus receives income. Timu's Plantation relies on Simi Truck Ltd to deliver the cacao beans to the port.



Figure 3.4 A courier van

## Accounting

Accountants help businesses to identify and collect appropriate accounting and economic information. This information will need to be processed, analysed and interpreted so that the business can make informed decisions. In a practical sense this means accountants:

- ❑ Help firms set up appropriate systems to collect data;
- ❑ Prepare financial reports;
- ❑ Give advice based on accounting information for improving performance.

### Case Study – Accounting

Lesina is the owner of the local florist shop – Flash Fleurs. At the end of every financial year, she collects all the relevant information together – bank statements, cheque butts, bank deposit slips, etc, and goes to visit her accountant – Latimer Cranmer and Partners. She relies upon the accountant to prepare the annual accounts, tax return, and to give her financial advice for the next year for the business. Latimer Cranmer and Partners rely upon Flash Fleurs to use their accounting services so they can charge fees which is their source of income.

## Finance

The finance sector provides a range of services that include the following – day-to-day banking, overseas transactions, term deposit options, venture finance, overdraft and mortgage facilities and EFTPOS facilities.

### Case Study – Finance

Wheeler Dealer Car Sales are expanding their business by importing quality used cars from Japan. The owners are unable to contribute more capital so the business has approached several finance companies and banks to negotiate sufficient funds to buy their next shipment. Wheeler Dealer rely upon the finance industry to supply funds for the expansion of the business, and the finance industry relies on Wheeler Dealer to pay the interest on the money they borrow.



## Communications

The communications industry has seen huge growth during the ‘information revolution’. Telephone and fax services continue to be popular and Internet and email facilities are now commonplace.

### *Case Study – Communications*

Zap Electrical is a wholesale electrical business. When the staff arrive at work in the morning they answer the phone, open the mail, read the faxes and clear the answerphone and email messages. They rely on each type of communication to help run the day-to-day operations of the business to bring in the customer orders and inquiries. SamoaTel relies upon Zap Electrical to use their telephone ‘call minder’ answerphone service, fax and phone lines, and cellphone. The rental they charge is their income. Sāmoa Post relies on Zap Electrical to use their post office box and pay the annual fee. They also receive revenue from the sale of stamps for every letter that Zap sends out. Zap relies on Sāmoa Post to deliver the mail they send.

## Marketing

Marketing is not the same as selling. Selling is a small part of marketing. Marketing firstly identifies and then satisfies consumer needs and wants. In other words, marketing is finding out what consumers want and getting it to them.

The four Ps of marketing are:

- |   |  |
|---|--|
| <input type="checkbox"/> <b>Product</b>   | What will we make or provide?                  |
| <input type="checkbox"/> <b>Price</b>     | How much will we charge for it?                |
| <input type="checkbox"/> <b>Place</b>     | How will we get it to the people?              |
| <input type="checkbox"/> <b>Promotion</b> | How will we tell the people what is available? |

Most businesses try to do their own marketing but some use specialist marketing firms. This gives access to the expertise they do not have themselves. A marketing firm will conduct market research to find out what good or service consumers want, what they are prepared to pay for it, where it should be sold and what benefits the consumers expect from the product. The marketing firm will also give advice on the selling price, packaging, distribution channels, promotions, advertising, sponsorship opportunities and public relations.

Consumers will buy a product for a variety of reasons including: price, quality, features, service, branding and packaging. A business will use two broad types of marketing strategies to be competitive in the marketplace – price and non-price competition.

## Case Study – Marketing

Sounds-R-Us is a nationwide chain of music stores selling CDs, cassettes and musical instruments. To maintain their market share, they like to advertise regularly in newspapers, magazines and on radio. Occasionally they provide prizes for music competitions or sponsor local events so the community knows about them. Sounds-R-Us relies on Smartspeak, an advertising agency to provide them with the best value for money their advertising dollar can buy. Smartspeak also conduct market research and advise Sounds-R-Us on what prices it should charge. Smartspeak rely on Sounds-R-Us to pay the fees they charge to provide them with a source of income.

## Price Competition

Price competition occurs when firms reduce their prices to attract more customers. This will increase the firm's market share, although the amount of profit per item will be reduced. We know that when price decreases, the quantity consumers demand increases, so the producer sells more.

The problem in price cutting, is that it may start a price war with other producers in the same industry until the profit margin has been reduced so far, that it is not economically possible for a producer to remain in business. In extreme cases this leads to the 'death' of one competitor – the producer who cannot slash their price any further. The 'winner' then has more control over price in the market because there are fewer competitors and less choice for consumers. A good example of a price war in recent times, was the introduction of a new brand of petrol, Challenge, into the New Zealand market. Where Challenge opened new petrol stations, existing competitors had to lower their prices to match the prices of the newcomer to the market, in order to maintain market share.

A business can use many price competition strategies to attract customers – each strategy means a reduction in price. These include: discounts, sales, buy-one-get-one-free promotions, interest free terms and 'loss-leaders'.

Retailers are the biggest users of 'loss-leaders' where they heavily promote some products which they sell at a loss (that is with no profit) in order to attract more people into the store in the hope they will buy something else as well.

In the short term the consumer is always the winner in price competition. It pays if you check first before you buy what different sellers offer. Newspaper and junk-mail advertisements regularly announce end-of-season-sales, stocktaking sales, birthday sales, etc.

## Non-Price Competition

Because of the danger of price wars, most businesses prefer to use non-price competition strategies to attract consumers to buy their products. They recognise that buyers are looking for more than a product at the lowest price. For example, buyers often want a good quality product. You might want an expensive stove that can do many cooking tasks, like baking and roasting, rather than a cheaper small stove that can do only one task and might soon break down. With this type of strategy there is no change to the selling price, but it costs the producer more for the additional advertising, service, branding or other strategies used.



Figure 3.5 A Challenge petrol station



Non-price competition has two major forms:

- ❑ **Product differentiation** which promotes *apparent* differences from competitors' products;
- ❑ **Product variation** which promotes the *real* differences from competitors' products.

Businesses use non-price competition because it allows them to increase the demand for their good or service. If a firm uses advertising to emphasise non-price factors such as product quality, after-sales service, the image of the brand, then it could increase demand and shift its demand curve (mentioned in Year 11) to the right. This results in increased sales revenue and increased profits once the costs of the promotion have been recovered.

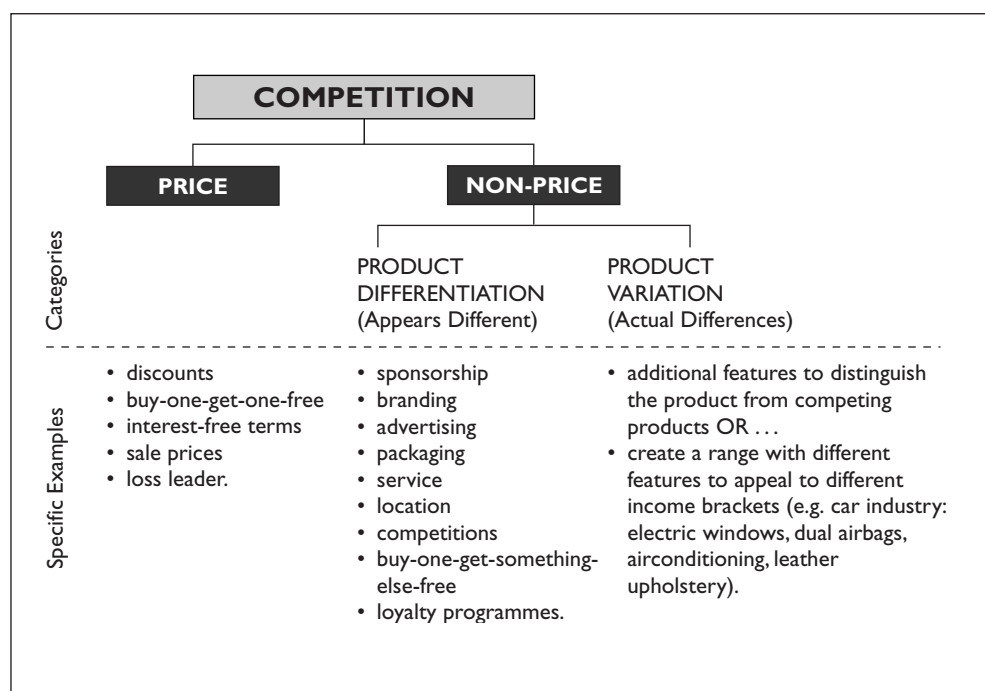


Figure 3.6 Competition components

## Product differentiation

Product differentiation includes anything that makes the product appear different in the eyes of the consumer from a similar product offered by other businesses. A business will consider its target market – the group of consumers its product is aimed at – before deciding which is the best type of competition to use.

**Sponsorship** might be undertaken at a local or national level – of schools, clubs, sports teams, cultural groups, etc. Sponsorship is designed to target the potential customers who are watching or involved with these events. At a national and international level, sponsorship gives the brand or product name exposure through the media – television coverage for example – which would otherwise have cost prime time advertising rates.

**Branding** includes the colour and/or logo which identifies the product. It allows customers to easily recognise any product originating from that producer (for example, the Nike swoosh). The logo or colour may be all that is needed to promote the product – the name of the producer may not even appear on the product. Some producers vigorously defend their colours – in recent times Telecom New Zealand has won the sole right to use the colour yellow for its printed business directories, *The Yellow Pages*, and will prosecute anyone who infringes this right.

**Advertising** is used for both price and non-price competition. A variety of media can be used to communicate the message to consumers. The business will use the media that best reach their target audience. Usually one type of medium is not enough to cover the target market. That is why you will notice a product advertised in more than one place – television, radio, direct mail and daily newspaper. Not all advertising mentions the price – some will be reinforcing the brand (making sure people remember the brand) or creating an interest in the product which might make the potential consumer buy it.

**Packaging** is another way firms use non-price competition. Packaging allows a firm to reinforce their brand by the use of colour and/or a logo. Cadbury uses the colour purple as a wrapper for their block chocolate and has applied to the patent office in New Zealand and Australia to register this colour for their sole use for all chocolate products. They believe most consumers associate this colour with their products and have used the colour purple in their packaging since the 1920s. They have already registered the colour in Britain. Attractive or more convenient packaging can also tempt a consumer into purchasing a product.

**Location, location, location!** This is another way that a business can distinguish itself from competitors. Some businesses are better located near other businesses of the same type for example: fast food outlets, second hand car dealers, antique shops, cafés and factory outlets. This allows potential customers to compare what is on offer and make a faster decision. Other businesses can increase demand just by their choice of location – for example, locating in a shopping mall instead of in the main street of town can provide benefits to customers such as car parking and convenience. This will increase foot traffic for the business and therefore provide increased sales.

**Competitions** are a way for a business to increase its market share in the short to medium term. The chance of winning something persuades customers to try a product, brand or just make a purchase. Prizes vary from small instant rewards (often of the edible kind) to major prizes such as a vehicle or overseas travel.

**Quality service** at the time of sale, or guaranteed service after the sale, can also distinguish one firm's product from its competitors'.

To receive a **gift with purchase** is another non-price competition strategy. It provides consumers with a bonus product or service for purchasing the product – it does not reduce the price. Chan Mows use this strategy with their promotion for special events during the year, e.g. White Sunday, Christmas and their birthday, whereby any sale made above a certain amount is rewarded with a gift, such as a tee shirt or a box of canned fish.

**Loyalty programmes** are a form of non-price competition. This is one way a business can reward loyal customers by offering points which accumulate as the customer continues to purchase their products.

## Product variation

Product variation includes anything which has an actual difference from competitors' products. For example, new features are added to distinguish a product from (to make it different from) what the competitors are offering. New car dealers offer more and more features as standard (such as electric windows and dual airbags) instead of options with an extra price tag.



This also occurs when a producer makes a range of models of the same product to appeal to different markets. Fridges are a good example. Fisher and Paykel, a New Zealand whiteware company, make a range that appeals to a large number of people – there are different sizes and features but they are all refrigerators.

Firms in the marketing industry will give advice on the best way in which businesses can compete and promote their products.

## Activities

- 1** Match the terms in the box below with the phrases that follow.

dependent	independent	interdependent service
financial services	transport	communications
accounting services	marketing	price competition
non-price competition	price war	product differentiation
product variation		

- a** This industry is used to move goods or people from one destination to another.
- b** A business will compete with competitors by reducing price through sales and discounts.
- c** A business will make a product appear different to a competitor's by the use of packaging, service, advertising or location.
- d** To be self-sufficient.
- e** An industry which facilitates the sharing or exchanging of information.
- f** To rely on someone else.
- g** Businesses compete by repeatedly undercutting each other's price.
- h** The service industry that identifies and helps a firm satisfy consumer needs and wants including advice on price, market research and advertising.
- i** To rely on each other.
- j** Firms involved in this service arrange capital or funds in order for businesses to continue or expand.
- k** Real product differences – additional features that appeal to different income brackets and distinguish the product from competitors' products.
- l** The gathering, processing, interpreting and communicating of financial data.
- m** When something is done for you.
- n** A business will use product variation and product differentiation to persuade customers to buy their products rather than reduce the price.

- 2 True or false?** State whether the following are true or false. If they are false, rewrite the sentences to make statements. (Do not just change a negative sentence to a positive one or vice versa, but rewrite them.)
- a** Accountants work in the finance industry.
  - b** Marketing means the job of getting goods or services from the producer to the consumer.
  - c** Air travel must always be the best form of transport if it is available.
  - d** The communications industry is vital in the business world.  
Communication may be verbal, written or electronic.
  - e** Accounting services include preparing financial reports, processing accounting data, giving financial or business advice.
  - f** Sāmoan Broadcasting Department and Televisiō Sāmoa are two organisations involved in the communications industry.
  - g** When a business runs a ‘gift-with-purchase’ promotion, they are using a price competition marketing strategy.

**3 Explanations**

- a** Explain what is meant by interdependence.
- b** A farmer is interdependent with a range of service industries. A finance firm, an accounting firm and a transport firm could be examples of such service industries. For each of these services, explain ways in which the service firm and the farmer are interdependent.

**4 Copy and complete** the following chart in your book:

<i>Methods of Transport</i>		
	<b>Advantages</b>	<b>Disadvantages</b>
<b>Road</b>		
<b>Rail</b>		
<b>Sea</b>		
<b>Air</b>		

- 5** Marketing firms offer many services to other businesses. List and explain **FOUR** different types of services that a marketing firm may offer.
- 6** Suggest **THREE** ways a new competitor to the market may increase their market share.
- 7** List **THREE** promotions or competitions that have taken place in the last 12 months. Name the product/company involved, and the ‘grand prize’ or ‘instant reward’.
- 8** Identify the national/international businesses that sponsor the following sports:  

Cricket

Rugby

Netball

Yachting

Rowing

Golf



9 Copy and complete the following chart in your book.

<i>Media Types used for Advertising</i>		
Advantages		Disadvantages
Television		
Radio		
Newspapers		
Magazines		
Direct Mail		
Billboards		
Website		

# Productivity

## Aims

On completion of this unit you should be able to:

- ☐ Define and explain the concept of productivity;
- ☐ Calculate productivity using a formula and statistics;
- ☐ Define the following and explain how each affects productivity: specialisation, division of labour, technology, investment, economies of scale, diseconomies of scale.

## Overview

As an economy it is important that we make the best use of our scarce resources. We need to make sure that we get maximum output for every unit of input – whether inputs are human resources, natural resources or capital resources. This idea of output per unit of input is called **productivity**.

Workers can increase their skills by focusing on producing one main commodity, that is **specialising**, or by focusing on one part of the production process (**division of labour**). Both specialising and division of labour increase productivity. Improvement in **technology** and greater **investment** can also increase productivity.

Increasing the scale of operations will have an impact on the output per unit of input. This can result in **economies** or **diseconomies of scale**.

## Productivity

**Production** is the making of goods and services. It is measured in terms of output or the quantity produced.

**Productivity** shows the relationship between outputs and inputs. It is the rate of output. This provides a better measure of a firm's performance than production.

The formula for calculating productivity is:

$$\frac{\text{output}}{\text{input}}$$

This formula can be used to calculate productivity of labour (output per worker), productivity of capital (output per machine or unit of capital), and productivity of land (output per hectare). Unless otherwise stated, productivity refers, in this course, to the productivity of labour.

An increase in productivity is considered positive. It can mean that as a result of increased production with current resources, sales can increase without incurring any extra costs and therefore there is the potential for the firm to earn more profit. For the worker this can result in increased income, time to complete other tasks and perhaps increased job satisfaction.

Productivity is said to increase if the percentage change in inputs leads to a greater percentage change in output: for example, if a 10% increase in inputs leads to a 20% increase in outputs.

### *Case Study – A chocolate factory*

There are currently 10 workers employed in the factory which produces 500 kilograms of chocolate per day. The manager, Sione Fale, hires five new staff to try to keep up with increased demand for the product. After the manager hires new staff, the factory's production is up to 650 kilograms of chocolate per day.

Using the formula on the previous page to calculate productivity we can see:

Original productivity:

$$\frac{500 \text{ kgs of chocolate}}{10 \text{ workers}} = 50 \text{ kgs per worker}$$

Productivity with extra workers:

$$\frac{650 \text{ kgs of chocolate}}{15 \text{ workers}} = 43.3 \text{ kgs per worker}$$

While total production has increased, the output per worker (productivity) has actually fallen.

## Specialisation

Specialisation occurs when a worker, firm, region or country concentrates on producing one main commodity (article of trade or commerce) rather than producing a variety of products or services. By focusing on one main good or service, they become better at it and can produce more output in a given time – that is, there is an increase in productivity. A specialist may be a doctor, a teacher, a plumber. Within organisations there can also be specialists; for example, specialist managers like purchasing managers, advertising managers, factory managers. These managers develop expertise in particular areas.

## Division Of Labour

When a specific task is separated into smaller tasks, carried out by different workers or groups, (different people do different parts of a job), it is called division of labour. For example, the housework in a student flat could be done by one person – or the job could be divided into different parts and each flatmate could concentrate on doing one job. In a car assembly plant, one person could assemble a whole car – or each worker could assemble one part of the car and concentrate on performing only that task (division of labour).

Division of labour involves specialisation within a specific task, so productivity may increase because people's skills can be matched with jobs. Workers only have to learn a small task so training time is reduced. They become quick and capable at their task. Machinery and automation can be used for monotonous or dangerous jobs.

There are disadvantages of division of labour. Jobs can become boring because the workers do the same task every day and this can make them dissatisfied with their job. One person being away can result in delays if each worker is depending on another. A loss of craft skills can result – we lose the skill of producing the whole product by one person or group.

Productivity is improved by specialisation and division of labour but as more workers are used the extra number of units produced or the rate of production will decrease. The table below gives an example of this situation for the production of meat pies.

Table 4.1		
Number of workers	Meat pies made	
	Total number	Extra number
1	20	20
2	45	25
3	65	20
4	80	15
5	90	10

- ❑ As more workers are added, the total output rises at an increasing rate.
- ❑ The number of extra pies made increases when a new worker arrives. This is called **increasing returns**.
- ❑ The number of extra pies made with the arrival of a new worker can start to fall, for various reasons – the space is too small, there is not enough equipment. This is called **diminishing returns**.

## Technology

Technology in Economics refers to the capital goods, processes and methods of production that a firm has. If workers use new machinery or the factory begins better methods of production, then the same number of workers can produce more in the same amount of time. Thus productivity of labour increases. An improvement in existing technology, for example upgrading a computer, may also mean that one piece of capital can produce more and so productivity of capital increases.



## Investment

Investment means increasing the stock of capital goods, for example if you buy new machinery or purchase a new computer. You need new technology so that you can improve productivity. Most firms borrow in order to be able to afford to invest. Interest rates (the cost of borrowing) will therefore influence the level of investment a firm will make.

## Economies And Diseconomies Of Scale

**Economies of scale** means that as the size of business operations increases (i.e. more labour, capital and natural resources are used) then average costs of production will fall. The firm benefits from being larger. Average cost means cost per unit of output.

$$\text{Average Cost} = \frac{\text{Total Cost}}{\text{Output}}$$

As a firm gets larger its total costs will increase. The firm has to buy more inventory (stock of goods), more capital (resources), pay more wages and salaries. With economies of scale, this increase in total costs is **not as great as** the increase in output so total costs can be 'spread over' a faster growing quantity of output. As a result, the cost of each unit of output (i.e. average cost) decreases. If a 10% increase in all inputs leads to a more than 10% increase in output, we have economies of scale.

Here are some reasons why **increasing** the size of operations **can lead to falling** average costs:

### 1 Technical economies

- ❑ Larger organisations have greater opportunities to use division of labour and specialisation.
- ❑ Some production processes require the same large machinery whether the output is small or large. Smaller versions of the equipment cannot be made. So small firms with small outputs cannot make the best use of this type of large equipment. Therefore the cost of using such equipment would be very high.
- ❑ Large firms can afford to carry out their own research and development. Smaller firms often do not have staff to do research and development or the finance to employ other people to do it for them.

### 2 Marketing economies

- ❑ Large firms can buy in bulk – that is, they can buy large quantities of an input, and can negotiate lower per unit costs.
- ❑ Large firms can afford to employ specialist buyers who are experts in buying the best goods at the best price.
- ❑ Selling costs (such as advertising) should be lower per unit for a large firm. The firm's total selling expenses will be much more than a small firm, but as it is spread over a larger quantity, the average cost of selling will fall.

### 3 Financial economies

- ❑ Large and well-known firms usually can borrow more easily and more cheaply (with lower interest rates) than smaller firms because they can provide greater security and pose less risk to the lender.



- ❑ Larger firms can raise funds more easily because more people will be willing to contribute finance to a large, established business than to a smaller one.

Economies of scale can increase productivity because resources are combined more efficiently – all of the resources are increased in appropriate proportions so that the rate of output can be maximised.

**Diseconomies of scale** is when average costs of production start to increase as the size of operations increases. A firm may become too large and with poor management start to run inefficiently. This can cause a decrease in productivity as workers may not have the same motivation to work hard, due to management inefficiencies, difficulties with communication and production line hold-ups.

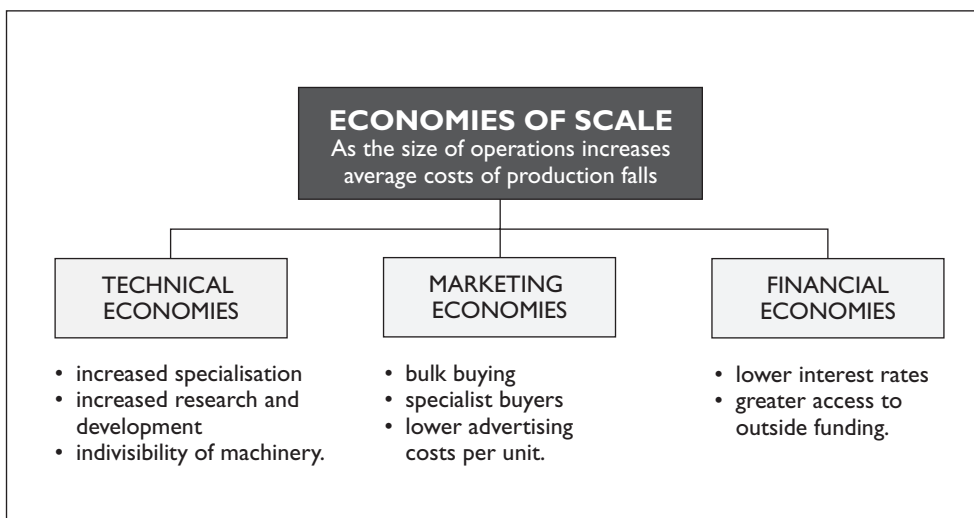


Figure 4.1 Economies of scale

## Activities

- 1 Match the terms in the box below with the phrases that follow.

production	productivity	specialisation
division of labour	technology	diseconomies of scale
economies of scale	investment	

- a When a job is divided up into separate tasks carried out by different people or groups.
- b When a person or group concentrates on producing one main good or service.
- c When the scale of production increases, output increases and costs per unit of production fall.
- d Using funds (saved or borrowed) to buy capital goods.
- e The stock of capital goods and the way in which goods and services are produced.
- f Output per unit of input.
- g When the scale of production becomes larger and average costs of production increase.
- h The amount of goods and services produced.





- 2 True or false?** State whether the following are true or false. If they are false, rewrite the sentences to make true statements. (Do not just change a negative sentence to a positive one or vice versa, but rewrite them.)
- a** Production is the making of goods and services measured in terms of how much is produced.
  - b** Productivity is the input per unit of output.
  - c** Output divided by input is the formula for calculating productivity.
  - d** Increased specialisation can result in an increase in output in relation to the inputs used.
  - e** Technology refers to the buying of capital goods.
  - f** Division of labour occurs when an aspect of a production process is split into separate tasks for different people to perform.
  - g** If a 50% increase in the amount of inputs used in a production process leads to output rising from 200 000 kg to 300 000 kg, there has been an increase in productivity.
  - h** As the size of the firm increases the costs start to fall.
- 3** Read the text and study the table below to answer the questions that follow.

Lopeti Smith and Tili Brown have just started a business which produces photo albums. They are the only two workers who make the photo albums. Their output of photo albums over their first four-weeks period is shown in the following table:

*Table 4.2*

<i>Output of Photo Albums</i>	
<b>Week</b>	<b>Output per week</b>
1	40
2	48
3	52
4	68

- a** Use the definitions of production and productivity to explain the difference between production and productivity.
  - b** Calculate the percentage change in production by Lopeti and Tili's business over the four-weeks. Show your working.
  - c** Calculate the productivity of labour of the photo album firm for each week. Show your working.
  - d** Give two possible reasons why the productivity of Lopeti and Tili's firm increased.
- 4 a** Explain what specialisation is.
- b** Explain how specialisation leads to interdependence and exchange.



5 a **Copy and complete** the following chart in your book.

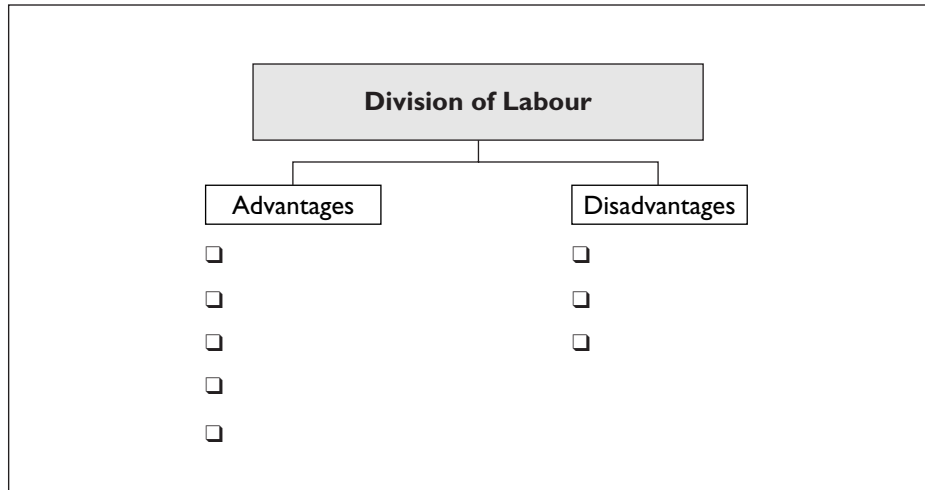


Figure 4.2 Advantages and disadvantages of division of labour

b Explain how division of labour can lead to increased productivity.

6 Read the text below and answer the question that follows.

Siaki and Sione run their own small lawn mowing business. Siaki mows the lawns and Sione follows behind trimming the edges with hand clippers. They have been asked to mow more lawns but have had to turn the jobs down as they do not have enough time.

Explain how Siaki and Sione could use investment and technology to increase the productivity of their lawnmowing business and hence take on more jobs and increase the revenue of their firm.

# Unit

## 5

## Non-Price Factors Affecting Supply

### *Aims*

On completion of this unit you should be able to:

- ☐ Identify the non-price factors that affect **supply**;
- ☐ Explain and illustrate how producers will react when there is a change in these non-price factors;
- ☐ Describe other factors that affect supply decisions including environmental, legal, trade and political influences;
- ☐ Evaluate the possible implications of a shift of a market supply curve;
- ☐ Define market supply and construct a market supply curve.

### Overview

We have seen that if you are a producer you must make many decisions before you even start to produce a good or service. Before you produce anything you should have decided that you want to be in business, the commodity you intend producing; the ownership, management and financial structure; the resources you will need; and how to organise the production process.

Then you will decide the initial output.

In Year 11 we looked at the main factor that affects supply – price. In this unit we will consider the non-price factors that influence our output decisions. We will firstly explain what are called the ‘non-price’ influences on output decisions: costs of production, price of related products, our goals and the state of our technology.

A change in non-price factors will cause either an increase or decrease in supply. Then we will examine other important factors such as environmental, legal, trade and political influences. These other influences will have an impact on the non-price factors, which results in a shift in supply, that is, the movement of the curve.

## Supply

Let's look again at the term supply we discussed in Year 11. Supply is the amount of a good or service a producer is willing to produce at various prices at a certain time.

A supply schedule can show this information on a table, for example:

Table 5.1	
<i>Kerehama's Electrical Store Supply Schedule for Fan Heaters each Month</i>	
Price (\$)	Quantity (fan heaters)
20	6
30	8
49	16
50	30

The supply schedule above shows that *as long as all other things remain the same*, at these various prices, the quantity (number) of fan heaters that Kerehama's Electrical Store will supply, is shown in the right hand column.

The information on the supply, schedule can be shown graphically on the supply curve, below.

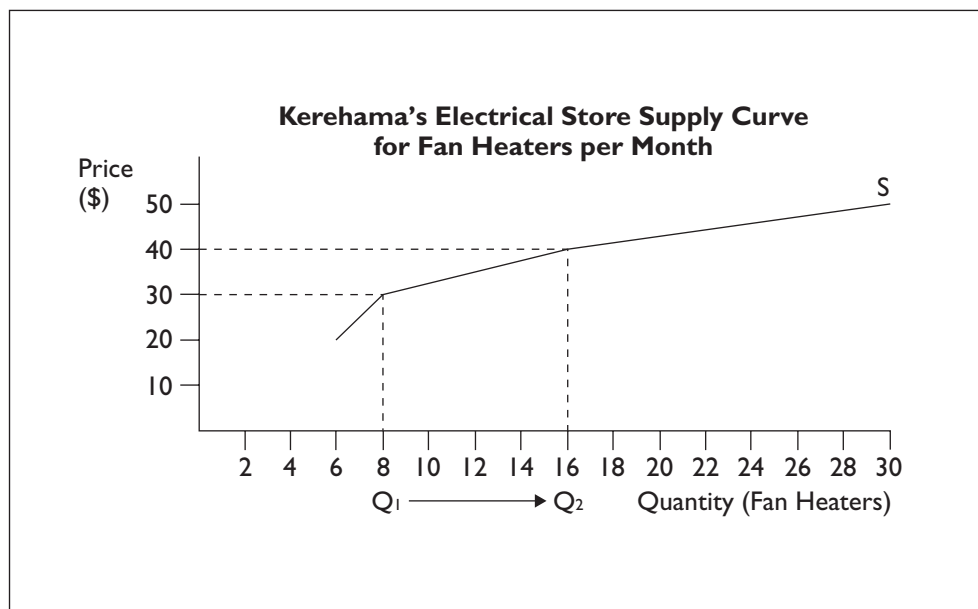


Figure 5.1 Supply curve

A change in price (*ceteris paribus*) results in a **change in quantity supplied** and a movement to another point on the supply curve. (Remember *ceteris paribus* is a Latin term which means 'when all other things remain the same'.)



## Change in supply

If we take away the *ceteris paribus* assumption, that is, if all other things do not remain the same, then factors other than price may change. For example, if oil heaters can be sold for a much higher price than fan heaters, then Kerehama may decide not to sell fan heaters but to sell oil heaters, as they would be more profitable. He now wants to supply fewer fan heaters so the first supply schedule is no longer correct and a new supply schedule and curve needs to be drawn.

When there is a change in a factor other than price (a non-price factor change) we call this a **change in supply** and the whole supply curve shifts to the left or right.

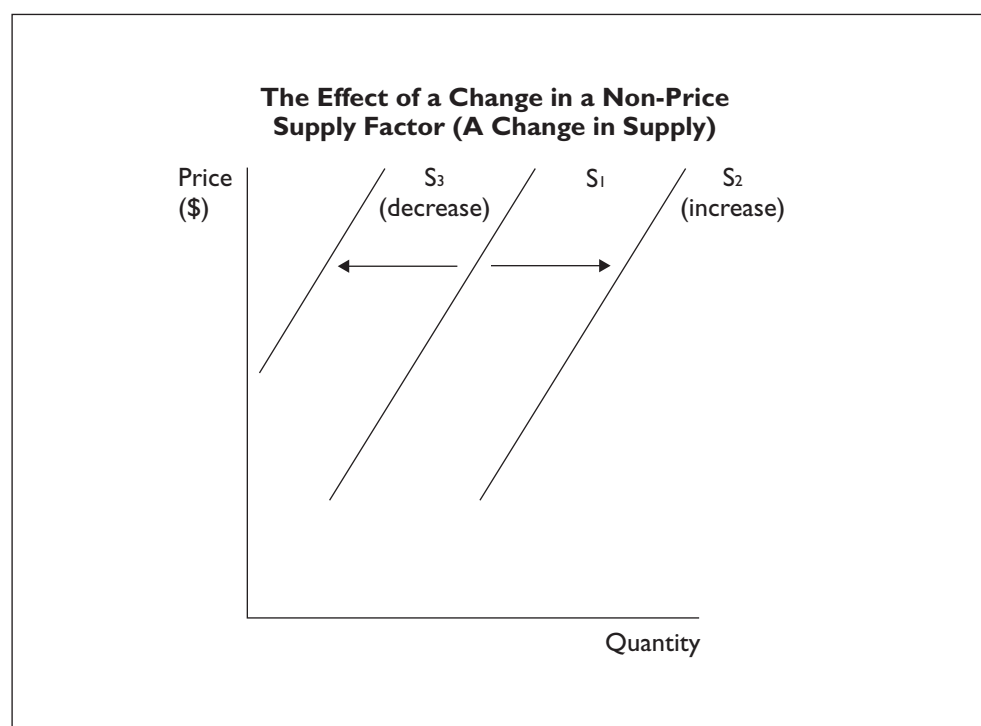


Figure 5.2 A supply curve showing a change in supply

## Non-Price Factors Affecting Supply

Often factors other than price will affect a producer's supply of a good or service. Most of these situations come under one or more of the main non-price factor headings described below.

### Costs of production

If the **costs of production** increase you need to cut back your output levels (unless you can obtain cash or credit and can pay the increased costs). For example, if you produce shoes and the price of leather increases, you may have to buy less leather and as a result you will produce fewer shoes.

An increase in the costs of production means that at the same price, the producer will supply less. The original supply schedule is no longer correct and the producer needs a new one. At various prices the producer will supply less.

The supply curve will shift to the left.

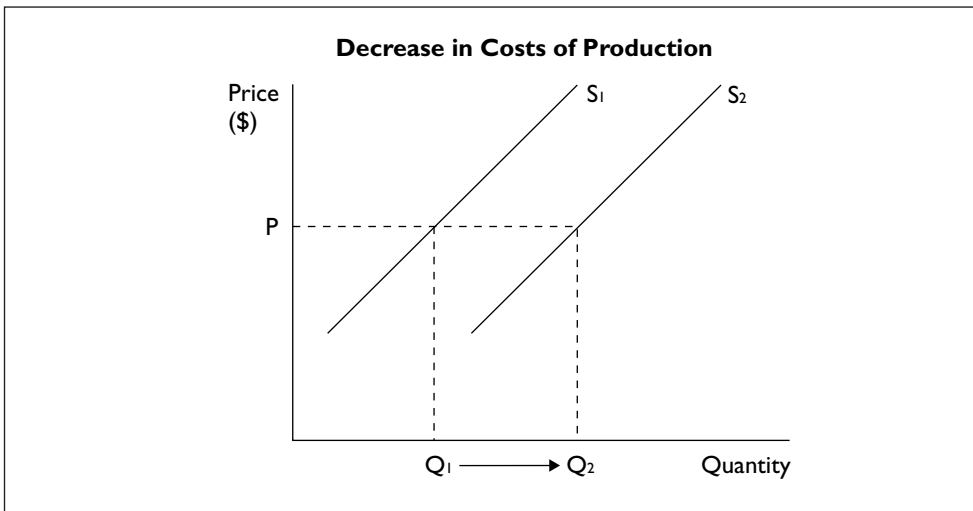


Figure 5.3 A supply curve showing a decrease in costs of production

This is called a **decrease in supply**.

If, however, there is a decrease in the costs of production then at the same price the producer might want to supply more. The producer would draw a new supply schedule and the supply curve would shift to the right. This is called an **increase in supply**.

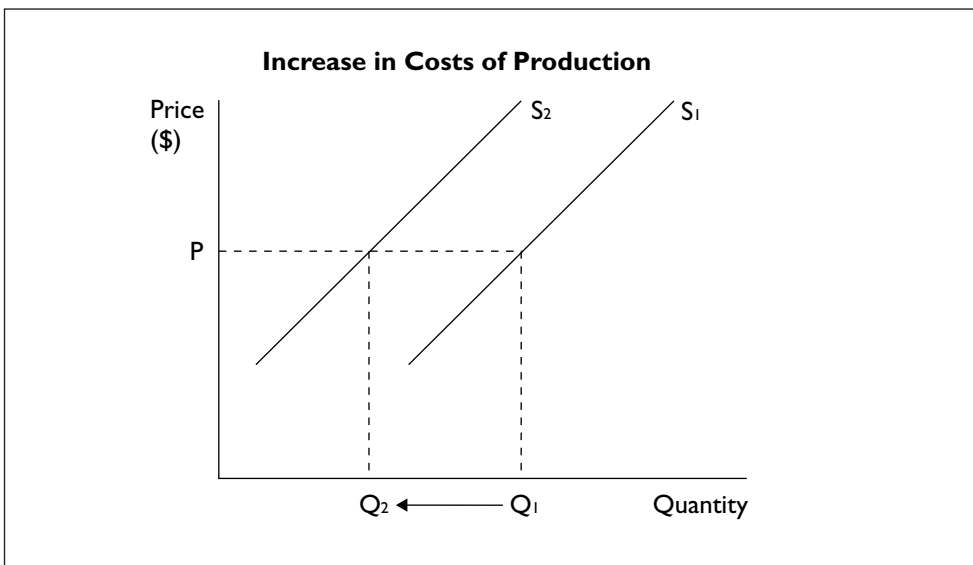


Figure 5.4 A supply curve showing an increase in costs of production

## Price of related products

Related products are any other goods and services that we can make if we use the same resources that we use in our existing production process. If we can continue using our present resources and shift production to a new product, we call the new product a **related product**. The price of related products affects our output decisions as follows. If we currently make leather shoes and the price of leather bags increases, we would be encouraged to shift from shoes to bags. The supply curve for shoes would shift to the left – a decrease in supply.

## Goals of producers

The goals of producers will affect output decisions. For example, if the owners of a store who were more interested in offering a service than making a profit, they might keep the store open for longer trading hours (i.e. increase supply) and suffer a loss for those uneconomic hours when they did not have many customers. This would shift the supply curve to the right.

## State of technology

**Technology** in Economics refers to the capital goods that a firm has and the processes and methods of production that the firm uses.

A firm can increase production levels if it improves its technology, even if it uses only the same amount of all other resources. All things being equal – supply will increase as the firm uses better technology. Clearly, supply will decrease if a producer has to use inferior technology. For example, a farmer whose seed drill has broken down will plant far less if he scatters seed by hand.

## Environmental factors

The extent to which a producer is concerned about the environment will be reflected in the decisions the producer makes.

A builder may decide not to use particle board flooring (because of the toxic glues and chemicals used when it is manufactured). Other non-toxic flooring materials are more expensive and take more time to install. Therefore, the number of new homes this builder can build each year will be reduced, i.e. costs of production will increase and supply is decreased.

On the other hand, a printer may decide to dump all paper off-cuts (instead of trying to recycle them) because dumping is cheaper and less time-consuming. This means less time and money is spent in disposing of waste, so more can be spent on other resources. Therefore as costs of production decrease supply will increase.

## Legal factors

A producer like everyone else must follow the laws of the land. Some laws will affect supply decisions. For example, the Shop Trading Hours Act prohibits certain stores from opening at certain times, such as Sundays and some public holidays like Easter and Christmas. This clearly restricts supply!

Packaging and labelling requirements, safety standards, and pollution controls are all legal requirements that can be expensive. They will increase the costs of production and therefore decrease supply.

In some cases, legal aspects of business may require producers to increase supply. For example, some bars are only licensed to serve alcohol if they serve a 'meal'. As a result, the supply of food increases to meet the requirements of the law.

## Trade factors

Sāmoa is a trading nation and so trade factors will affect its supply decisions. Importers and exporters must be aware of a range of these influences.

**Tariffs** are a tax on import. For example, the government may place a 20% tariff on imported running shoes. This means that if you import the shoes, paying \$100 to the overseas producer, you must pay a further \$20 as a tariff. This increases your costs and the price of imported goods on the Sāmoa market.

**Quotas** limit the amount we can export. For example, the New Zealand Meat Board can only export 50 000 tonnes of beef to the USA each year.

The **exchange rate** tells us the value of the SAT\$ against other currencies. As the exchange rate changes we will get more or less foreign currency for our SAT\$. This affects the price we pay or receive as well as our output decisions.

The **prevailing price** for a commodity which is sold on the world market (world price) affects market conditions on the domestic market that is, the market conditions in Sāmoa.

## Political factors

Political factors will affect supply in a number of ways. The government may declare a trade embargo: that is it may forbid business relations with another country. An example was before 1993 when the New Zealand government would not allow New Zealand businesses to trade with South African businesses because of the New Zealand government's opposition to South Africa's apartheid policies.

**Wars and involvement in wars** influence supply options. For example, selling products to the USA was impossible immediately after the terrorist attacks on New York and Washington on 11 September 2001.

**Regulations** require standards of hygiene in food preparation, and **restrictions** on some imports are set in place to help Sāmoan business and agriculture, to allow Sāmoans to get the benefit from what they grow and manufacture.

**Trade agreements** are negotiated by governments to promote and free up trade between nations.

**Sales taxes** In an attempt to discourage the consumption of certain products, such as alcohol and cigarettes because they are bad for health, the government may place a sales tax on the product. This increases the costs of production and decreases the supply (moves the supply curve to the left).



Figure 5.5 Sales taxes discourage smoking

## Market Supply

**Market supply** is the total supply that all individual firms in that market are willing to produce at a range of prices at a particular point in time. It is how much the whole market wants to produce.

You can work out market supply schedules and curves by adding up horizontally all the individual producers' supply schedules or curves. For example, there are four stores in Apia that supply fresh milk.

The supply schedule over the page sets out this information:



Table 5.2

### Weekly Supply Schedule for Fresh Milk in Apia

Price (\$) per 750 ml bottle	Store A Quantity (bottles)	Store B Quantity (bottles)	Store C Quantity (bottles)	Store D Quantity (bottles)	Market Supply Quantity (bottles)
2.00	15	25	8	10	58
3.00	30	34	16	18	98
5.00	38	36	23	23	120
7.00	45	38	30	34	147

### Weekly Supply of Fresh Milk in Apia

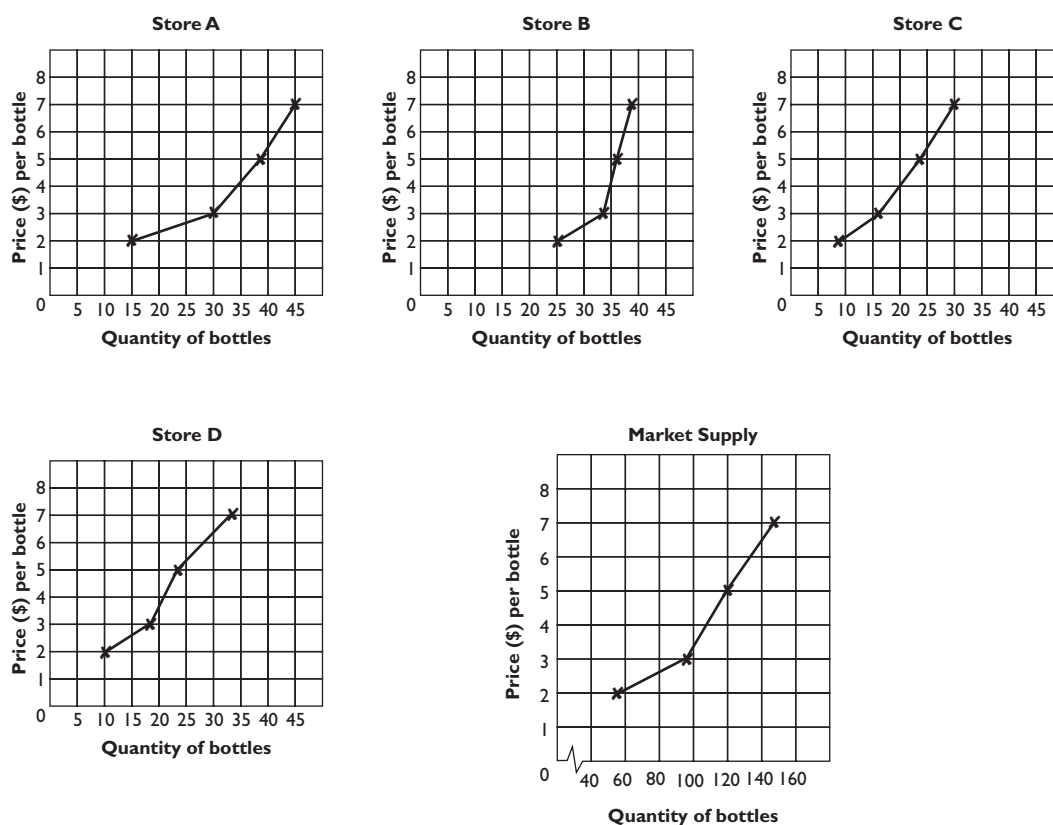


Figure 5.6 Fresh milk supply curves

## Implications of a shift of a supply curve

If supply of milk in Apia were to increase (shift to the right) or decrease (shift to the left) this will have an impact on each firm in several ways.

If there is a decrease in supply each firm may need to find alternative products to produce. It may have to deal with redundant resources such as staff and machinery – laying off staff, selling machinery or moving to alternative premises.

If there is an increase in supply, firms may need to hire and train new staff, find larger premises, buy new machinery.

Remember, *changes in all the non-price factors mentioned in this unit will cause either an **increase in supply** (shift to the right) or a **decrease in supply** (shift to the left).*

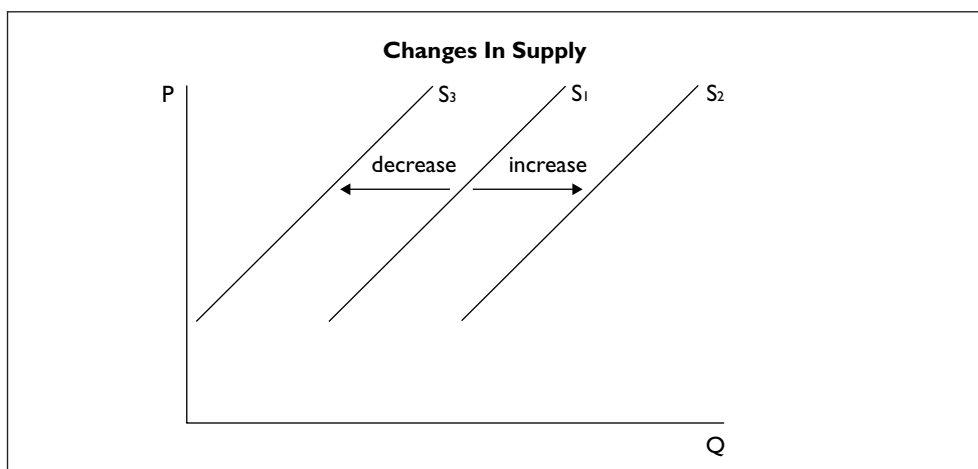


Figure 5.7 Change in supply

## Activities

- 1 Match the terms in the box below with the phrases that follow.

legal factors	change in supply	costs of production
implications	technology	goals of the firm
environmental factors	political factors	trade factors
related products	change in quantity supplied	

- a When governments' economic policies influence the output decisions of firms.
- b The capital a firm uses and the methods of production.
- c Possible aims of a producer.
- d The producer could shift to producing these products with relative ease as the resources used to produce them are similar to what the producer currently owns.
- e The term used to describe the result of a change in price causing a movement to another point on the supply curve.
- f The term used to describe the result of a change in a non-price factor causing a shift of the supply curve.
- g Issues related to pollution or the depletion of resources.
- h The amount paid by a producer to produce a commodity.
- i Influences on production as a result of goods being bought and sold overseas.
- j Influences on production because of rules set by local or central government.
- k Something that could happen as a result of a decision.



- 2 True or false?** State whether the following are true or false. If they are false, rewrite these sentences to make true statements. (Do not just change a negative sentence to a positive one or vice versa, but rewrite them.)
- a** Some non-price factors affecting supply are: costs of production, price of related products, goals of producers and state of technology.
  - b** Supply is the amount of a good or service a consumer is willing to produce at various prices at a certain time.
  - c** An increase in the costs of production for a firm will result in a decrease in supply – the supply curve will shift to the left.
  - d** Assume that wooden dining tables and wooden bookshelves are related products. If the price of wooden dining tables increased, then the supply of wooden bookshelves is likely to decrease.
  - e** If new and better methods of production are found for producing sun hats, then the supply curve for sun hats will shift to the left.
  - f** A change in the goals of the firm can cause either an increase or decrease in supply depending on what the change in goals is.
- 3** In your book draw eight sets of axes, labelled *price* and *quantity* and sketch on each graph a supply curve labelled  $S_1$ . Label each set of axes (a) through to (h). Show the following changes on the corresponding graph.
- a** Supply of hairdressing services at Ioane's Hair Studio. The hairstylists at Ioane's Hair Studio all get a pay rise.
  - b** Supply of 'Red Mud' body care products. The owners of the Red Mud chain of shops decide to change their focus to producing cosmetics rather than body care products.
  - c** Supply of bicycles. New technology is introduced which allows bicycles to be produced more quickly and at a cheaper cost.
  - d** Supply of Levi's. Law changes allow the importing of Levi's from the United States by non-registered importers.
  - e** Supply of tissues by Tissues Direct. New government policy means that 'Tissues Direct', a producer, has to find a method of producing tissues that will decay more easily in rubbish tips. This is expected to be expensive.
  - f** Supply of tissues. The price of toilet tissue (an input) increases.
  - g** Supply of pou muli souvenir items. A new law is passed which forbids pou muli from being made into craft supply items.
  - h** Supply of bicycles. Tariffs on imported bikes are reduced.



4 Processing

- a Draw a supply curve based on the information from the following supply schedule.

Table 5.3	
Lei's Crafts Supply Schedule for Shell Jewellery Boxes per Month	
Price (\$)	Quantity (shell jewellery boxes)
8	25
10	30
12	35
15	45
20	60
25	75

- b Create another possible supply schedule for jewellery boxes if Lei found a more efficient way to produce jewellery boxes.
  - c Draw this new supply curve on your original graph and label it  $S_2$ .
  - d On the same graph, show the effect on supply if shell earrings were able to be sold for a higher price. Label the curve  $S_3$ .
- 5 Manasi is the owner of a Market Garden – called Manasi's Market Garden. The following is the supply curve for lettuces from Manasi's Market Garden:

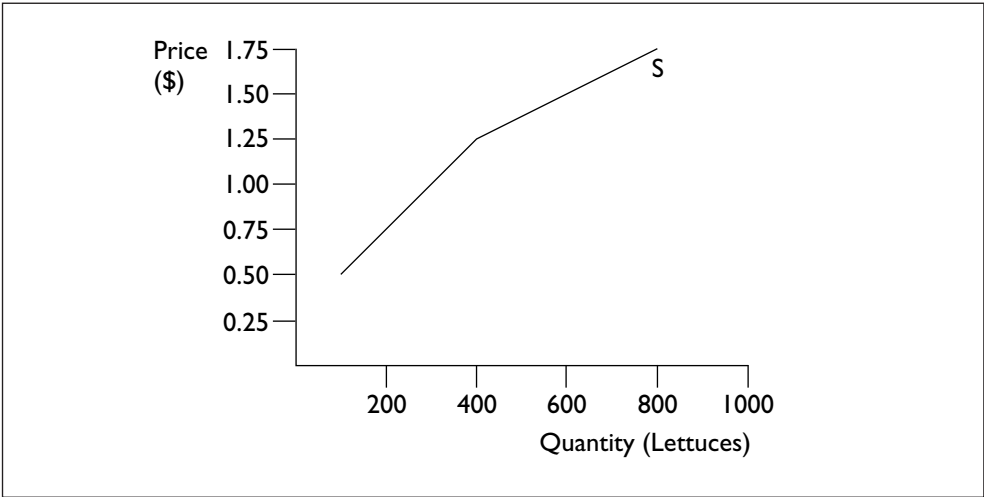


Figure 5.8 Supply curve for lettuces from Manasi's Market Garden

- a Copy the supply curve above and create a supply schedule for lettuces from Manasi's Market Garden.
- b Show on your graph the effect of a price change for lettuces from 90 cents to \$1.50.
- c Make a new supply schedule to show what might happen if poor weather conditions ruined part of Manasi's crop.
- d Show the effect of the new supply schedule on your graph.



- 6 Read this news article about a wine company in New Zealand and answer the questions that follow.

### *Wine press squeezes out extra cash*

This country's wine production could be increased by 6% a year without a single new vine being planted, thanks to a small Hawke's Bay company. ATI Engineering, a privately run company working mainly in the food processing industry, has developed a prototype wine press for New Zealand conditions.

Soil conditions in New Zealand vary greatly compared with overseas, meaning a New Zealand press is likely to have to cope with a much greater variety and quality of grapes.

This presents problems because overseas presses are designed to cope with big production runs of grapes of the same standard, which reduces their efficiency and the quality of the juice. The new press, designed to be adjusted to suit widely variable loads, has already produced surprising results.

Hawke's Bay winemaker John Hancock agreed to trial the prototype press at his Trinity Hill winery, a move which has brought him an unexpected windfall from this year's vintage.

"We were getting around 680 litres of juice per tonne (of grapes) from our conventional press. With this new press we're getting another 40 litres per tonne, and the juice is better quality.

"For us that's about an extra 1500 cases of quality wine, which is worth an extra \$200 000," said Hancock.

If that was applied across the wine industry it would increase production by 6%. That's 3.6 million litres, or 4.8 million extra bottles a year.

The challenge for ATI now was to boost production. The presses were so large the factory could make only three at a time, and they each took eight weeks. Planned expansion of the factory would lift production to five at a time.

Greg Ninness, *Sunday Star Times*, 4 July 1999

- a What does a wine press do?
- b Explain how 'this country's (New Zealand's) wine production could be increased by 6%'.
  - c What are the advantages of the new wine press for Trinity Hill winery?
  - d Using the information in the article:
    - ☐ Draw a possible supply curve for Trinity Hill winery;
    - ☐ As accurately as possible, show the effect of the new wine press on the original supply curve.
  - e What are the likely consequences for ATI Engineering?

# Non-Price Factors Affecting Demand

## Aims

On completion of this unit you should be able to:

- ☐ Identify the non-price factors that affect **demand**;
- ☐ Explain how consumers will react when there is a change in these non-price factors;
- ☐ Illustrate how consumers will react to a change in these non-price factors;
- ☐ Evaluate the implications of a shift of a market demand curve;
- ☐ Define market demand and construct a market demand curve.

## Overview

In Year 11, Book One, *Business Studies*, you were introduced to the idea of demand. The main factor that affects a consumer's demand is price. The law of demand states that *an increase in price will decrease the quantity demanded* and vice versa, *ceteris paribus*. So, as long as your tastes don't change, your income doesn't change, the prices of substitute goods don't change and the prices of complementary goods don't change, then your demand will be the same for each of the different price levels. However, in this unit we are going to see what happens when the *ceteris paribus* assumption no longer applies when all the factors are not the same. Non-price factors affecting demand include **preferences, income, price of substitute goods and price of complementary goods**.

## Demand

Remember, demand is the amount of a good or service a consumer is willing and able to purchase at various prices at a certain time.

A demand schedule shows this information on a table, for example Lara Foster's demand for cupcakes.

Table 6.1

**Lara's Demand Schedule for Cupcakes per Day**

Price (\$)	Quantity of Cupcakes
0.60	7
0.85	6
1.00	4
1.20	2

Lara's demand schedule shows that as long as all other things remain the same, at these various prices, these will be the quantities of cupcakes that Lara will be willing and able to purchase.

We can show the information in the demand schedule by a demand curve on a graph.

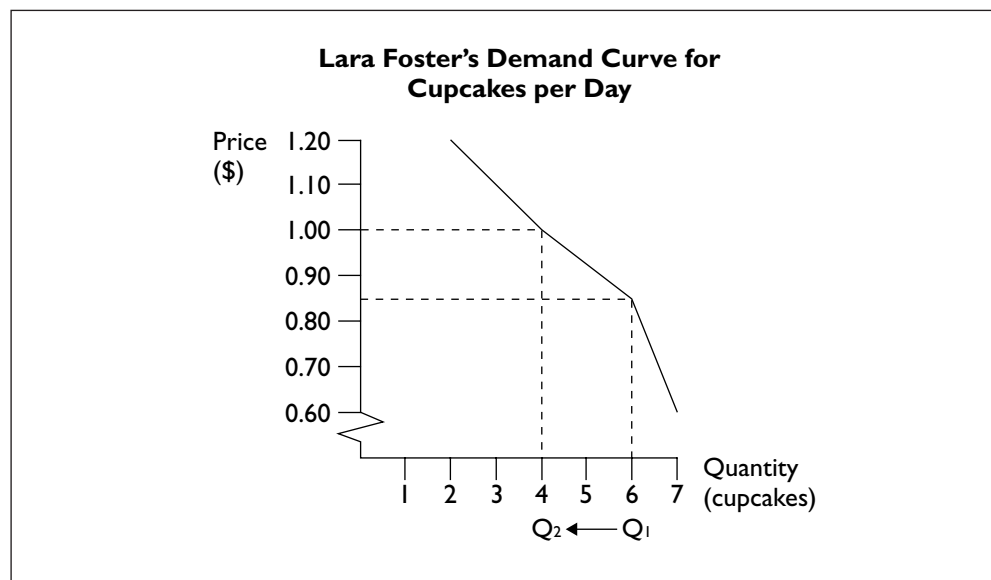


Figure 6.1 Lara Foster's demand curve for cupcakes per day

A change in price brings a change in the demand quantity which results in a movement to another point on the demand curve.

## Market Demand

Market demand is the total demand of what all the individual consumers in a particular market can and want to buy at various prices at a particular time. It is how much the whole market will buy.

You can work out market demand schedules and curves by adding horizontally all the individual consumers' demand schedules and curves. For example, imagine that the market for 5 kg bags of rice is just four families, Timu, Laga, Sione and Risati. The individual demand schedules are brought together on one schedule.

Table 6.2

### Monthly Demand Schedule for 5 kg Bags of Rice

Price (\$)	Timu family Quantity	Laga family Quantity	Sione family Quantity	Risati family Quantity	Market Demand quantity
20	5	3	8	12	28
25	3	2	5	10	20
30	1	1	3	7	12

### Monthly Demand for 5 kg Bags of Rice

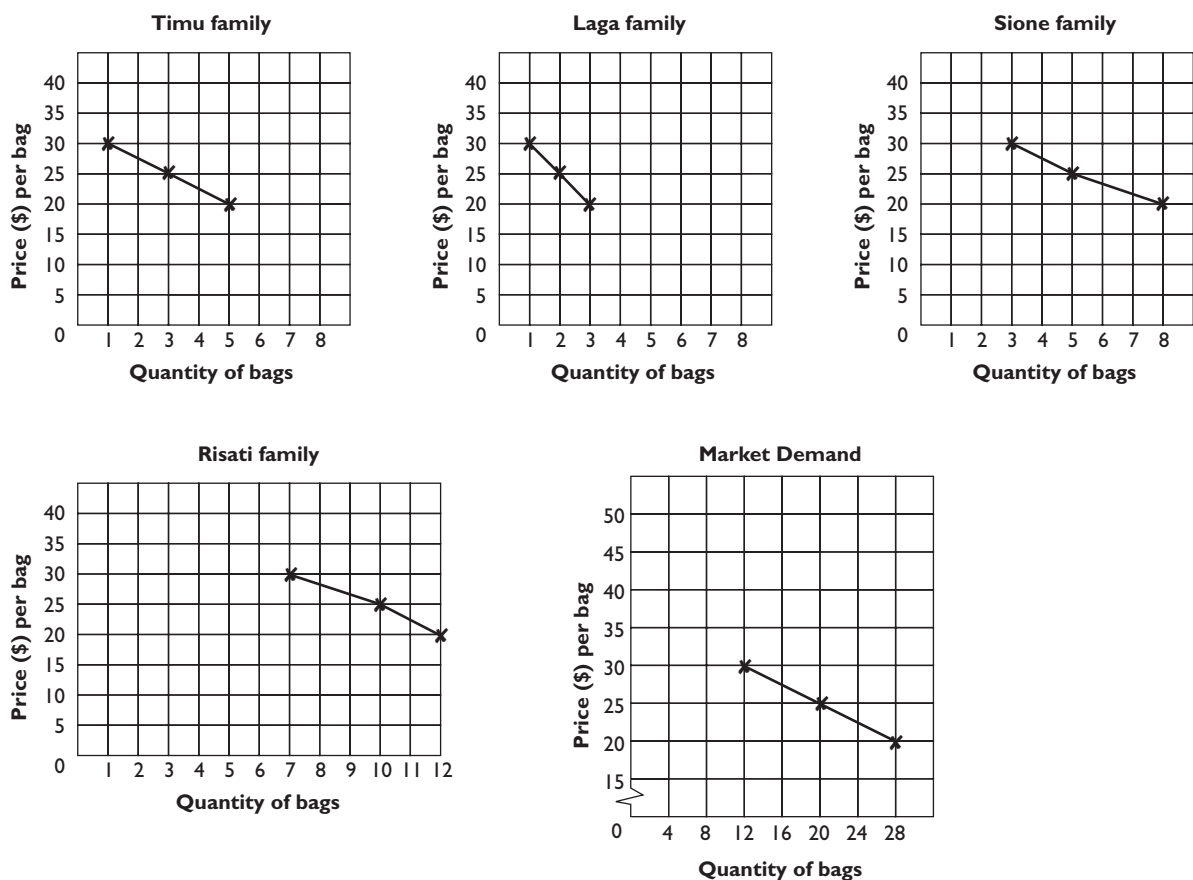


Figure 6.2 Monthly demand curves for 5kg bags of rice

## Change In Demand

If we remove the *ceteris paribus* assumption (if all factors are not the same), then factors other than price may change. For example, if it were discovered that bran cupcakes were healthy then at \$1.00 Lara may be willing to buy six cupcakes. She is now willing and able to buy more cupcakes, so the earlier demand schedule is no longer correct and Lara would need a new demand schedule and curve.





It is similar if Lara receives more income. She may now be willing and able to purchase more bran cupcakes at each price because she can afford more. Once again, the original schedule is no longer correct and a new schedule and curve needs to be drawn.

When there is a change in a factor other than price (a non-price factor) we call it a **change in demand** and the whole demand curve on the diagram shifts to the left or the right.

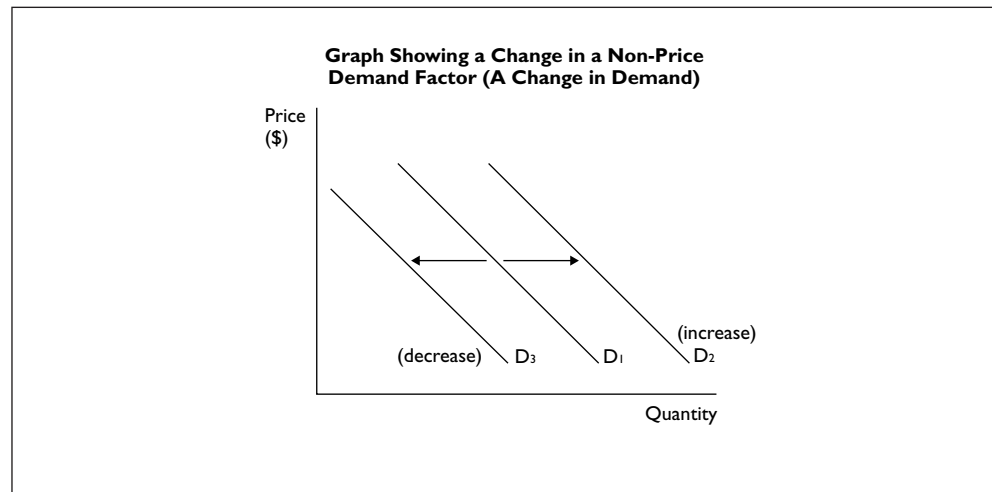


Figure 6.3 A change in demand

## Non-Price Factors Affecting Demand

Many times something other than price will affect a consumer's demand for a good or service. Most of these situations come under one of the main non-price factor headings that follow.

### Preferences

**Preferences** are when people like one thing more than another.

As people's preferences change their demand for a product changes. As a consumer's preferences move towards a product, the consumer's demand for that good increases and the demand curve shifts to the right. Remember, price hasn't changed – it is a non-price factor that has changed.

The graph on the following page shows Lara Foster's demand for cupcakes per day as she gets a craving for them.

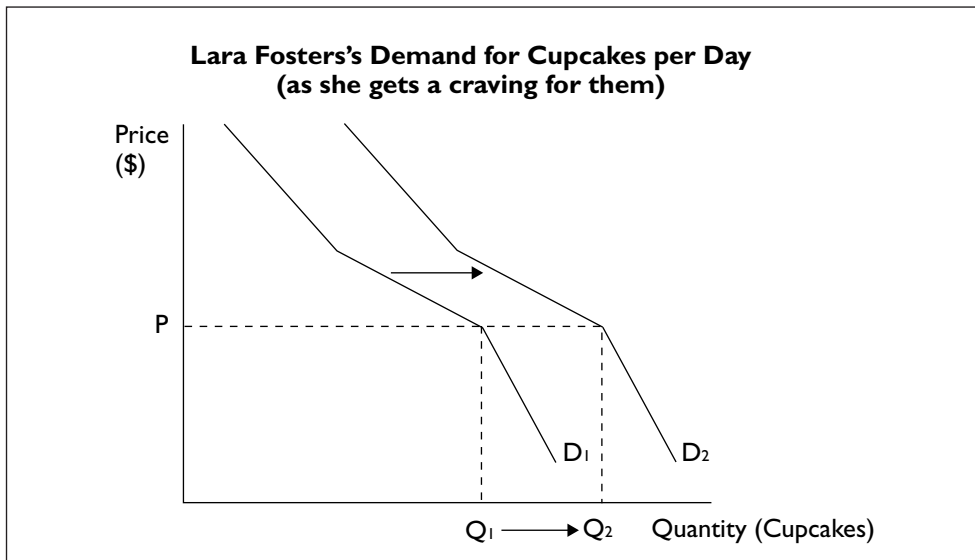


Figure 6.4 Lara Foster's demand for cupcakes per day – with a craving for them

Suppose Lara doesn't want to eat as many cupcakes because they don't taste as good as they used to. If a consumer's preference moves away from a product the demand curve shifts to the left. Again, price hasn't changed – it is the non-price factor that has changed.

The following graph shows Lara Foster's demand for cupcakes per day as they don't seem to taste as good as they used to and her demand is less.

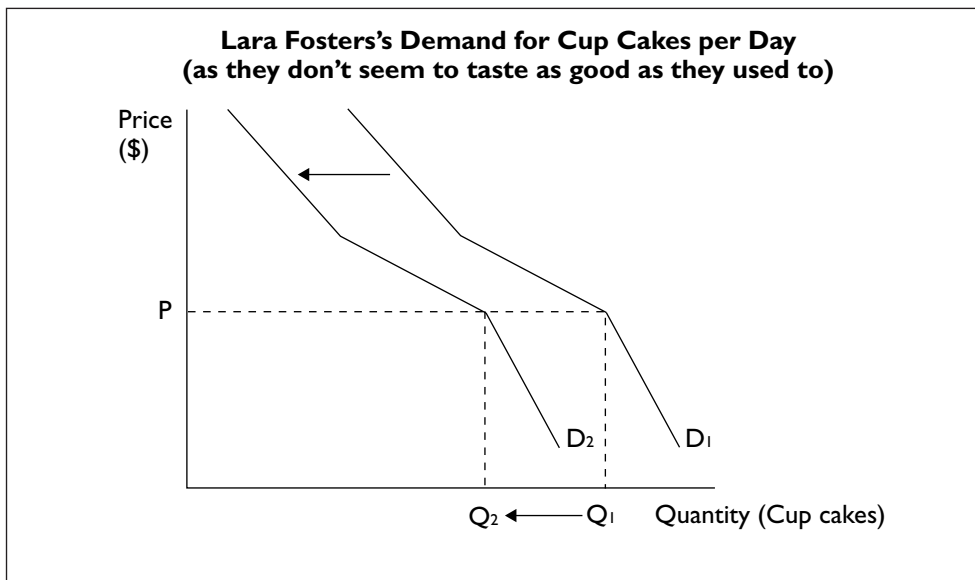


Figure 6.5 Lara Foster's demand for cupcakes per day – not craving them

A consumer's preferences can be influenced by a number of factors. Perhaps that a good becomes less fashionable, so our preferences move away from that good. Perhaps that a good or service becomes more popular with a consumer's peer group, therefore increasing demand. (Your peer group is people who are about the same age as you and who have a similar job or belief or background to you.)

For example, Bill is a working parent and finds that his friends are hiring people to clean their houses. Bill would never have considered this as an option in the past, but as it becomes a more acceptable practice amongst his peer group, his demand for a house cleaner increases.

A person's values will certainly influence their preferences and hence their demand. *Values* are your core beliefs, the things you think are important when you decide how to behave and what to think. Your upbringing, culture and religion, peer pressure and media influence your values.

Preferences may also be influenced by changing weather and seasons. As more rain falls, the demand for umbrellas will increase – even though nothing has happened to the price. During the winter, the demand for ice creams is likely to be lower than in the summer when it is hot. The demand for hot pies may increase in the cold winter months.

## Income

If people receive a higher **income**, their demand for a product will increase as long as the good is what we call a **normal good**. A normal good is one where your demand for the good increases as your income increases. An **inferior good** is a lower quality good and your demand for it decreases as your income increases.

For example, when Leilani is on a lower income, she may buy mince for meals, because it is affordable. If Leilani has an increase in income, she may decide that she will no longer buy mince, because she can now afford to eat steak. So, as her income increases Leilani's demand for the inferior good (mince) falls, and her demand for the normal good (steak) will increase.

The graph of Leilani's demand for steak shows the effect of increase in her income on a normal good.

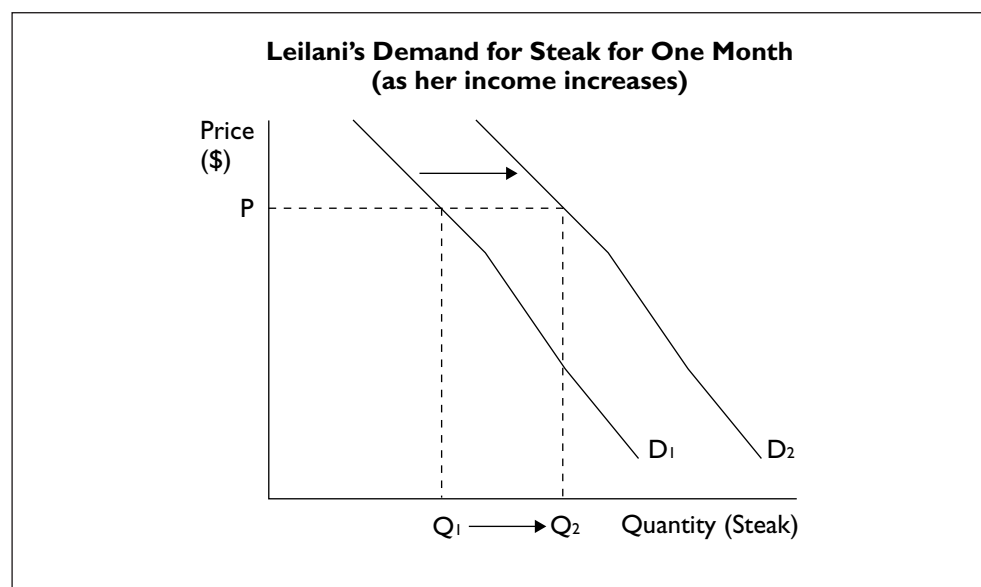


Figure 6.6 Leilani's demand for steak for one month

Income is affected by **income tax rates**. If your income tax rates fall, then your disposable income (take-home pay) will increase. Therefore your purchasing power increases and your demand for normal goods will increase.

## Price of substitute goods

**Substitute goods** are goods which can be used in place of each other. For example Coke and Pepsi are similar drinks. If the price of Pepsi falls then the quantity demanded will increase. But this will also have an impact on Coke, even if the price of Coke has remained the same. The demand for Coke will fall as Pepsi becomes relatively cheaper. This can be shown in the graphs on the following page.

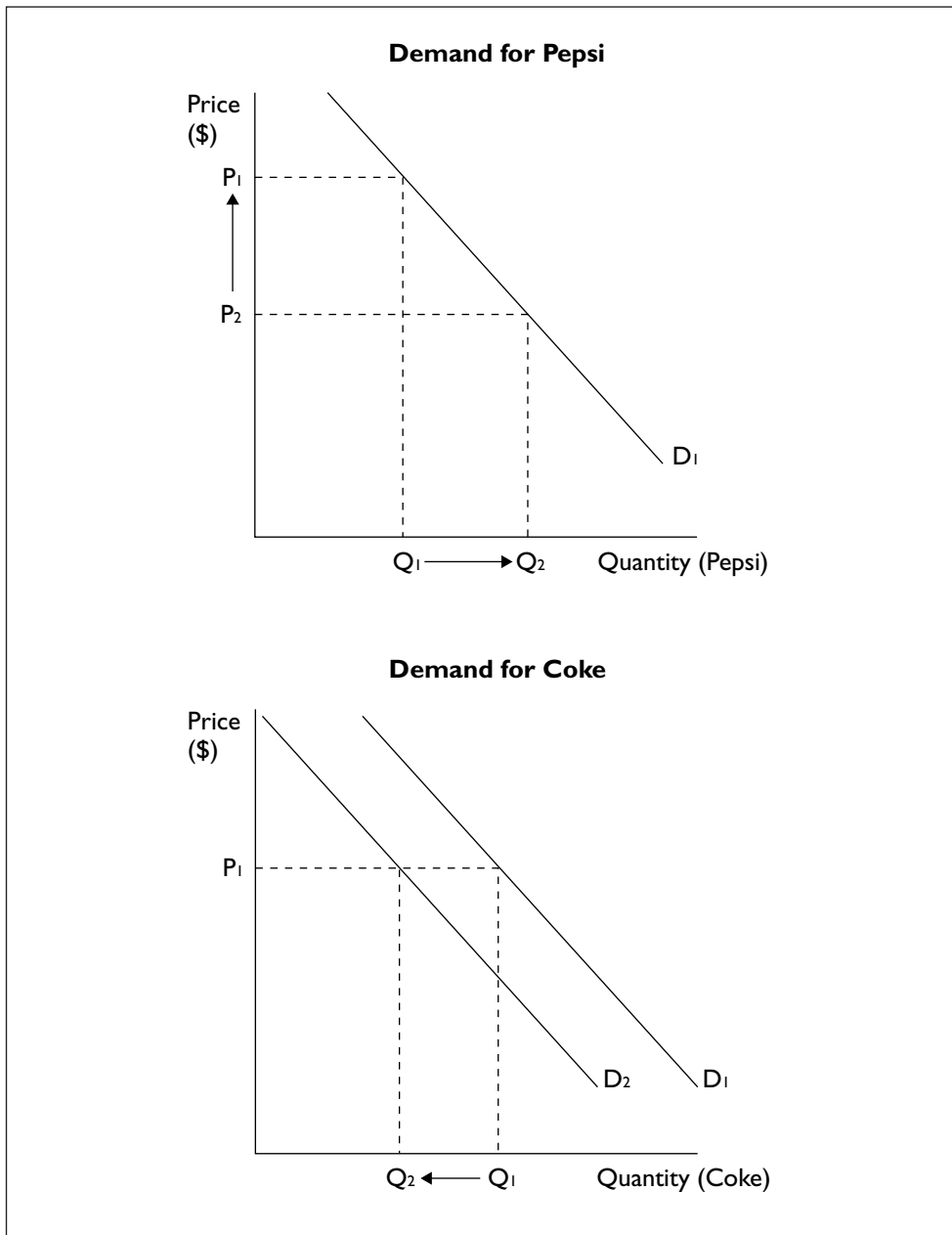


Figure 6.7 Demand curves for Pepsi and Coke

## Price of complementary goods

**Complementary goods** are goods which are traditionally used together, such as bread and butter or cars and petrol.

A change in the price of a complementary good will have an effect on the demand for the original good. For example, we will assume that when people buy cooked fish they buy it with chips. If the price of cooked fish goes up, resulting in a decrease in the quantity of fish demanded, then people will buy fewer chips. In Economic shorthand we write:

$$\uparrow P_{\text{Fish}} \rightarrow \downarrow Q_{\text{Fish}}^D \rightarrow \downarrow D_{\text{Chips}}$$

Remember, this occurs even though the price of chips has not changed. This situation can be shown with the following two graphs.

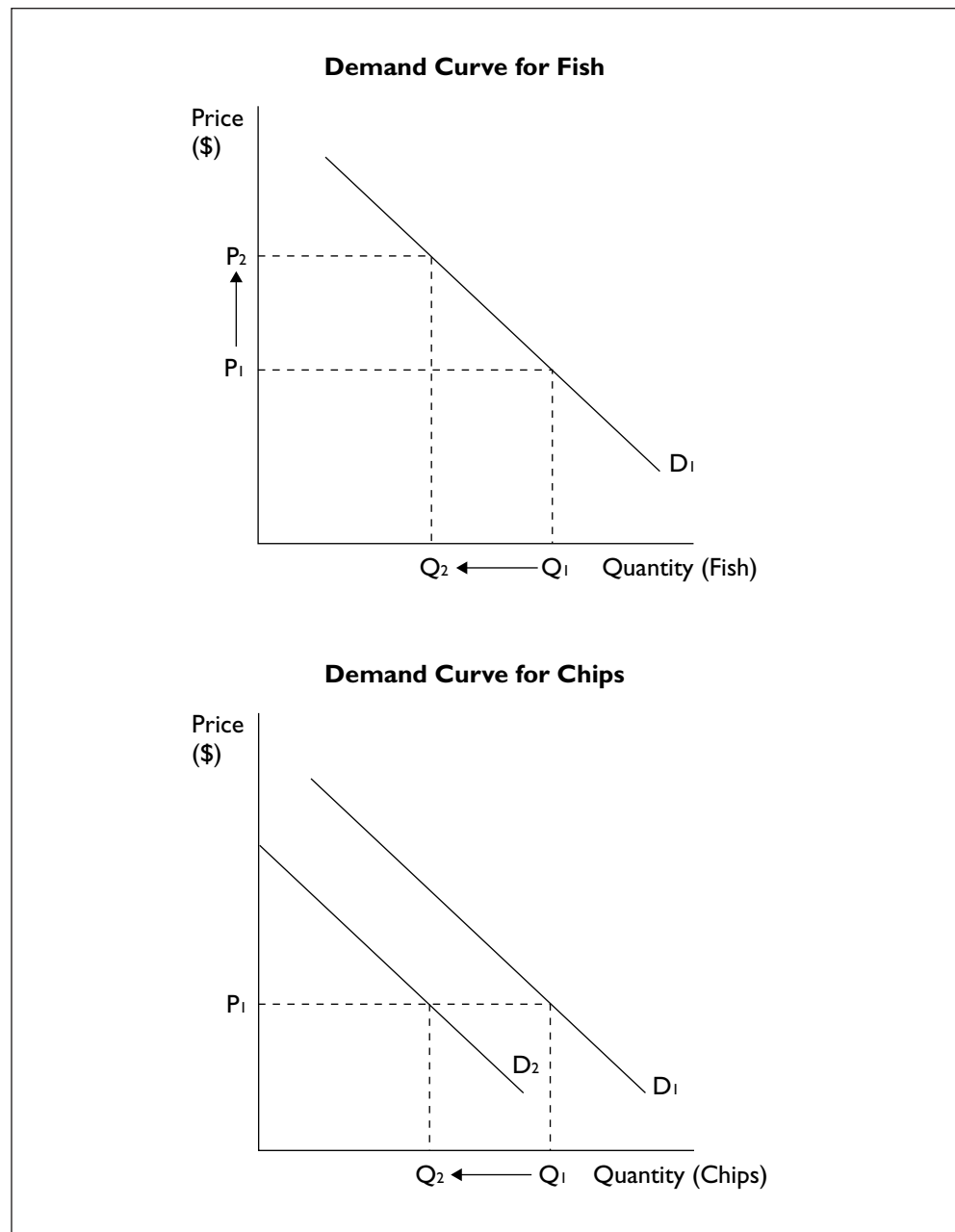


Figure 6.8 Demand curves for fish and chips

## Activities

1 Match the terms in the box below with the phrases that follow.

change in demand	preferences	substitute goods
complementary goods	income	inferior good
normal good	income tax	

- a When your income increases your demand for this type of good also increases.
- b What you value highly and what your tastes are like.
- c The result of a change in a non-price factor affecting demand.
- d Goods which can be used in place of each other.
- e The amount of money, earned or unearned, that a person generates over time.
- f A proportion of your income which has to be paid to the government.
- g When your income increases your demand for this type of good decreases.
- h Goods which are usually consumed together.

2 **True or false?** State whether the following are true or false. If they are false, rewrite the sentences to make true statements. (Do not just change a negative sentence to a positive one or vice versa, but rewrite them.)

- a An increase in price results in a decrease in demand.
- b An increase in income results in a decrease in demand, for a normal good.
- c An increase in the price of Tim-Tam biscuits results in an increase in the demand for Chit-Chat biscuits (if you assume they are substitutes).
- d As your income tax rates increase, your demand for an inferior good may increase.
- e As the price of basketballs falls, the demand for basketball hoops will probably increase (if you assume they are complementary goods).

3 In your book draw eight sets of axes, labelled *price* and *quantity* and sketch on each graph a demand curve labelled  $D_1$ . Label each set of axes (a) through to (h). On the graphs, show the effects of the following changes on the corresponding graph:

- a Demand for dresses at Malu's Dress Shop. The clothes designer at Malu's Dress Shop has won an award at the annual South Pacific Fashion Competition in Auckland, New Zealand.
- b Demand for food at the school vending machine. School students are given a student allowance by their form teacher if they attend.
- c Demand for Nike sports shoes. The price of Adidas sports shoes falls.
- d Demand for cans of Coke. Temperatures in Sāmoa reach an all-time high.
- e Demand for 'AA' size batteries. The price of alarm clocks (which use 'AA' size batteries) falls.
- f Demand for 'Body Store' cosmetics. 'Red Mud' has a sale of their cosmetics.



- g** Demand for Playstation consoles. The price of Nintendo consoles drops by \$70.
- h** Demand for Playstation games. The price of Playstation consoles drops by \$70.
- 4 a** In your book draw a demand curve based on the information from the following demand schedule. Tama buys track suits to sell to rugby teams.

Table 6.3

*Tama's Demand Schedule for Track Suits per Year*

Price (\$)	Quantity (Track Suits)
25	7
35	6
45	5
55	4
65	2
75	0

- b** Create another possible demand schedule of track suits for Tama if the temperatures during winter were very mild (quite warm!).
- c** Draw this new demand curve on your original graph and label it  $D_2$ .
- d** On the same graph, show the effect on demand if the track suits being sold were all colours that Tama didn't like.
- 5 a** In your own words explain what complementary goods are.
- b** Give TEN examples of sets of complementary goods.
- c** In your own words explain what substitute goods are.
- d** Give TEN examples of sets of substitute goods.



6 Read the text below and do the activities that follow.

Maria Kelly manages a shop for its owner and she is the mother of two children. She is busy in the shop and would like to pay someone to do her housework. After she checked her budget and thought about how important this service was to her, she made the following demand curve:

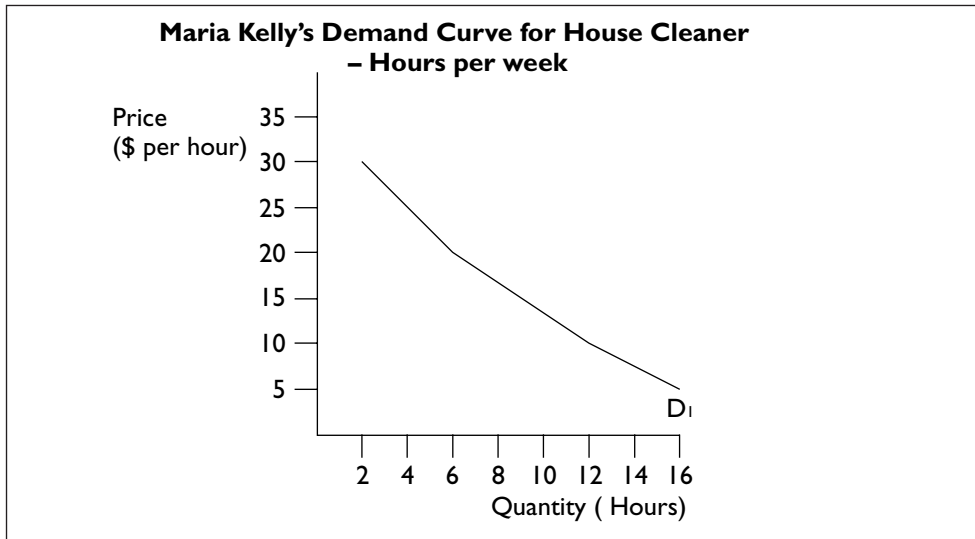


Figure 6.9 Maria Kelly's demand for a house cleaner

- a Copy the demand curve above and make a demand schedule for Maria Kelly for hours of house cleaning per week.
- b Show on your graph the effect of a price change from \$15 per hour to \$25 per hour.
- c Make a new demand schedule to show what might happen if the shop's owner gave Maria a pay rise.
- d Show the effect of the demand schedule on the graph.
- e Make a new demand schedule to show what might happen if Maria's friends thought it was a bad thing to have another person do your housework.



# Unit

# 7

## Market Equilibrium

### *Aims*

On completion of this unit you should be able to:

- ☐ Use a supply and demand model to illustrate the market;
- ☐ Understand and show that the equilibrium price is the only stable price;
- ☐ Use supply and demand analysis to illustrate the effects of changes in supply and demand on equilibrium price and equilibrium quantity.

### Overview

In the previous units we reviewed supply and demand tools which show how consumers and producers interact in the market and we looked at the non-price factors that affect demand and supply. Market diagrams were developed for both supply and demand to show how prices are determined in the market. In this unit we will use what we learned and the skills we practised in the earlier units to identify what happens to **market equilibrium** when any of those non-price factors change.

## The Market Supply And Demand

The demand curve (D) represents the quantity of a good or service a consumer is willing and able to buy at a series of prices. The **market demand curve** represents the behaviour of consumers for a specific good or service.

The supply curve (S) represents the quantity of a good or service an individual firm is willing to supply at a series of prices. The **market supply curve** represents the behaviour of producers for a specific good or service.

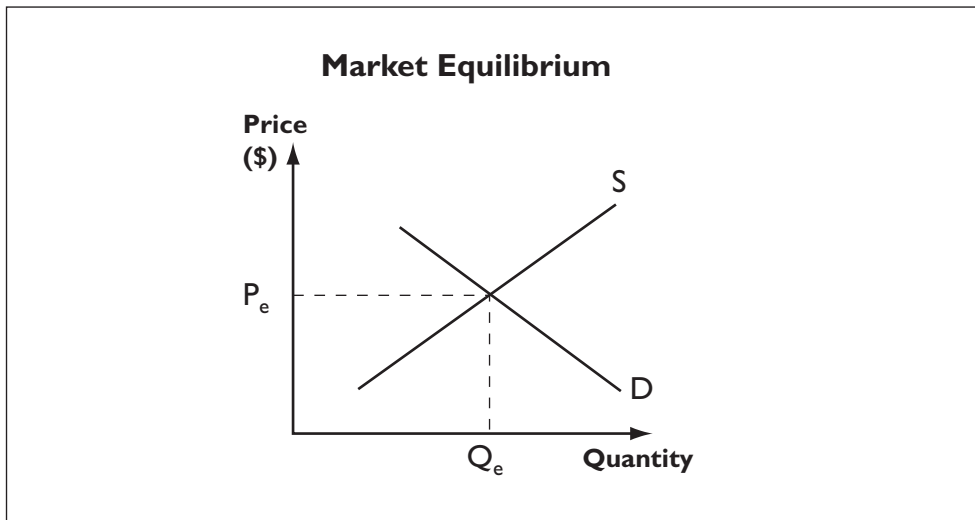


Figure 7.1 Market equilibrium

The demand curve maps out the price and quantity combinations that suit consumers.

The supply curve maps out the price and quantity combinations that suit producers.

There is only one price and quantity combination that suits both consumers and producers. This combination is known as the **equilibrium point**.

From the equilibrium point, the equilibrium price ( $P_e$ ) and equilibrium quantity ( $Q_e$ ) can be determined.

The **equilibrium price** is the market price. This is the price the good or service will sell for. The **equilibrium quantity** is the quantity of the good or service that will be bought and sold.

## Prices above equilibrium

There is a **surplus** of goods available when the quantity supplied is greater than the quantity demanded. In the diagram below, at  $P_1$ , the quantity supplied ( $Q_s$ ) is greater than the quantity demanded ( $Q_d$ ).

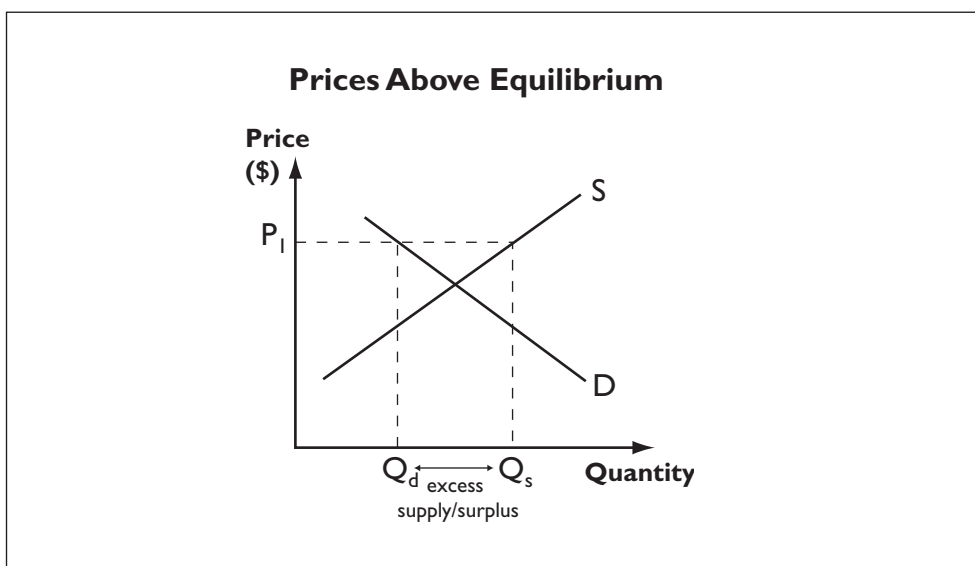


Figure 7.2 Prices above equilibrium

In this situation, there is a surplus of goods available in the market. Producers will have unsold stock and to clear their surplus, producers must lower prices. If this happens most sellers of the product reduce prices. Usually they will hold sales to get rid of excess stock, then consumers will increase their quantity demanded and producers increase the quantity supplied until the equilibrium price and quantity is reached.

## Prices below equilibrium

There is a **shortage** of goods available when the quantity demanded is greater than the quantity supplied. In Figure 7.3 below, at  $P_2$ , the quantity demanded ( $Q_d$ ) is greater than the quantity supplied ( $Q_s$ ).

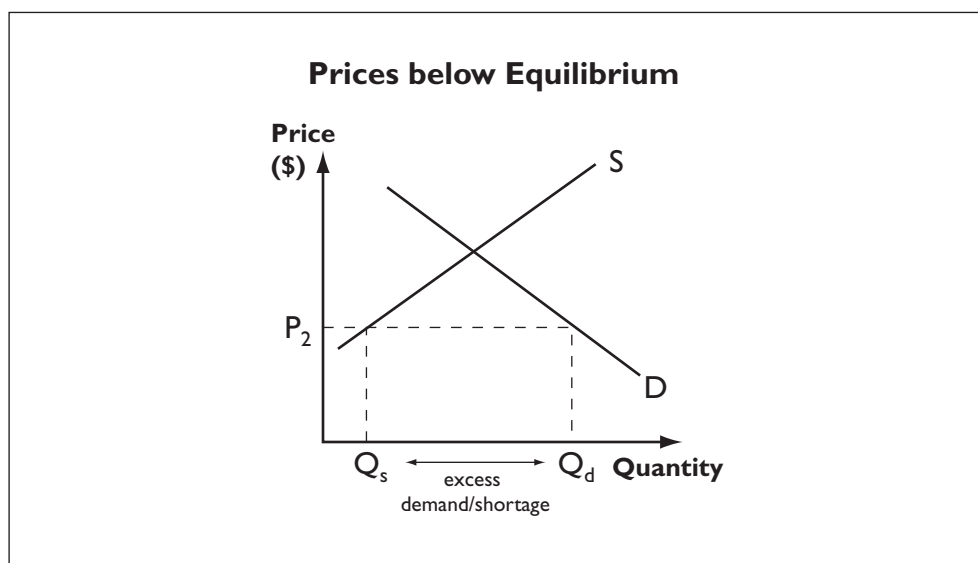


Figure 7.3 Prices below equilibrium

In this situation, there is a shortage of goods in the market. Consumers can't obtain enough of the goods and so **drive the prices up**. Sellers of the product react to this situation by increasing prices. This encourages producers to increase the quantity of the product and because of the higher price, consumers will decrease their quantity demanded until the equilibrium price and quantity is reached.

## Change In Supply

In Unit 5 we learned that the main non-price factors that affect supply are cost of production, price of related products, goals of the producer and the state of technology. If one or more of these factors change then supply changes. We know that producers are not alone. They depend upon a market situation with consumers who demand their products. So what effect does a change in supply have on the market? Consider the following examples:

### A decrease in supply

With an increase in the costs of production the supply curve shifts to the left ( $S_1$  to  $S_2$ ), a **decrease in supply**. At the old equilibrium price ( $P_1$ ) there is too little product available ( $Q_s$ ) to satisfy consumer demand ( $Q_d$ ), that is, there is a **shortage** (see Figure 7.4a on the next page).

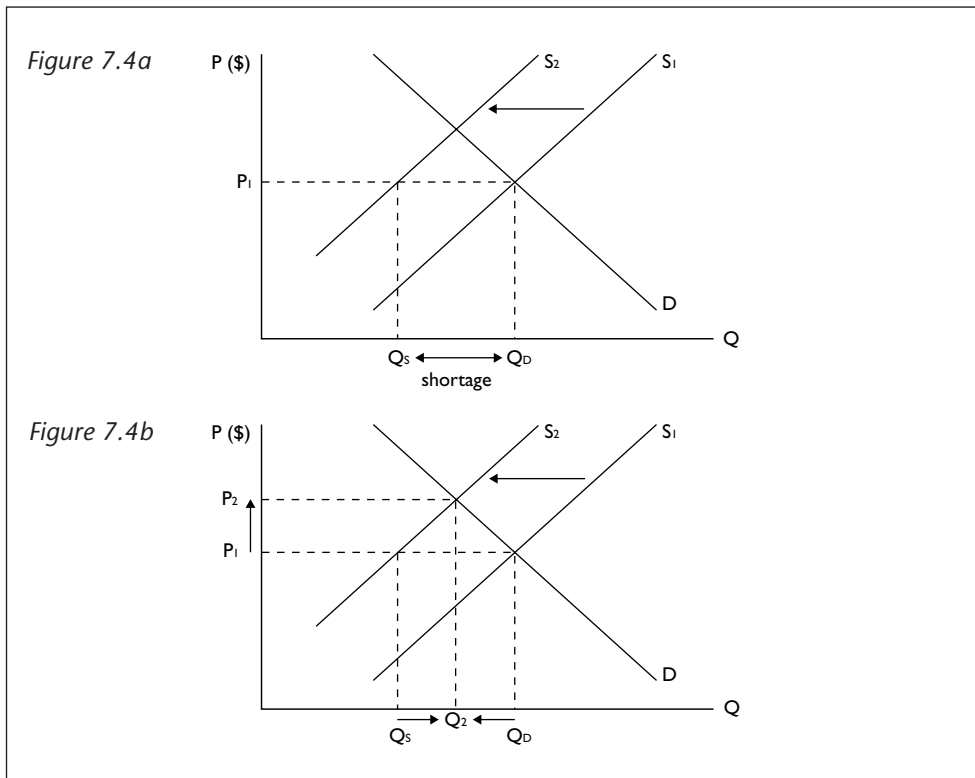


Figure 7.4a Shortage and Figure 7.4b A new equilibrium

Therefore the price will rise, increasing the quantity supplied and decreasing the quantity demanded, until the new equilibrium price and quantity are reached ( $P_2$ ,  $Q_2$ ) – see Figure 7.4b above.

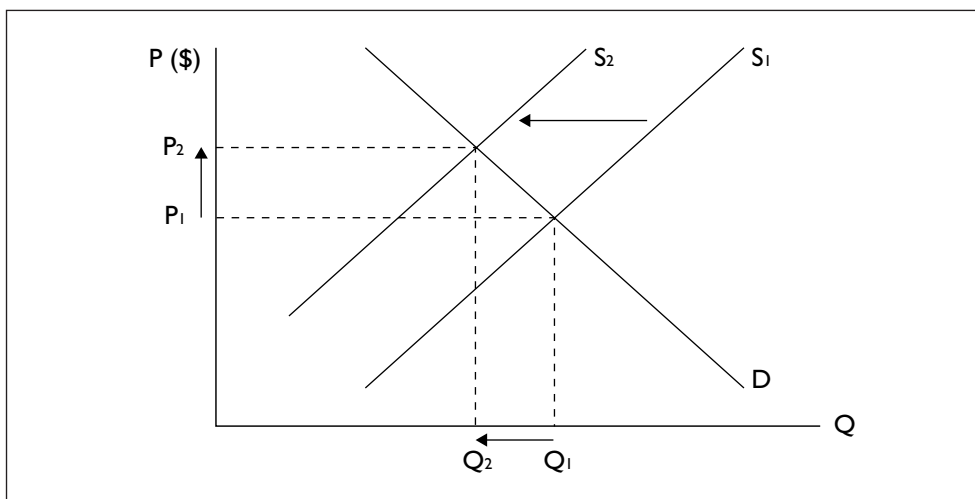


Figure 7.5 Market equilibrium changes

Note the effect on market equilibrium; there has been an increase in price and a decrease in the equilibrium quantity (see Figure 7.5 above).

## Change In Demand

As we saw in Unit 6 the main non-price factors that affect demand are: preferences, income, price of substitute goods and price of complementary goods. A change in one or more of these factors brings in a change in demand. What effect does a change in demand have on the market? Consider the following examples:

## A decrease in demand

When an item goes out of fashion, consumers no longer want to buy it (even if they still can afford to buy it). This results in a **decrease in demand**. At the old equilibrium price ( $P_1$ ), there is too much product available ( $Q_s$ ) compared to what consumers want ( $Q_d$ ), that is, there is a **surplus** (see Figure 7.6a below).

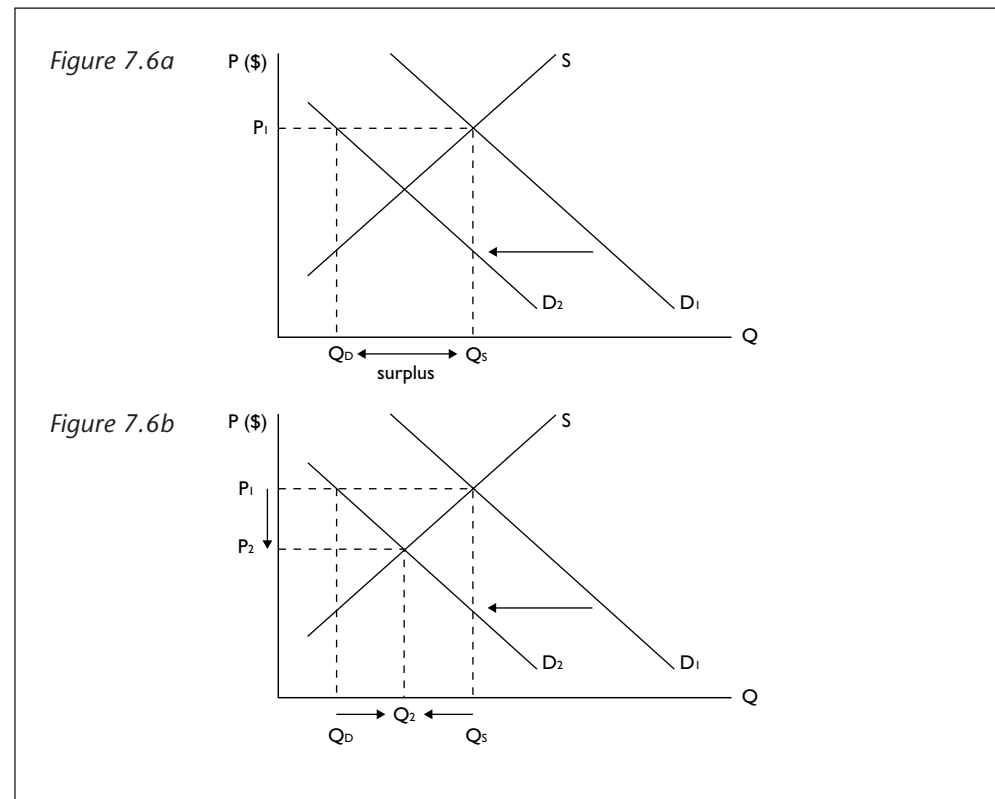


Figure 7.6a Surplus and Figure 7.6b A new equilibrium

Therefore the price will fall, increasing the quantity demanded, decreasing the quantity supplied until the equilibrium price and quantity is reached ( $P_2$ ,  $Q_2$ ) – see Figure 7.6b above.

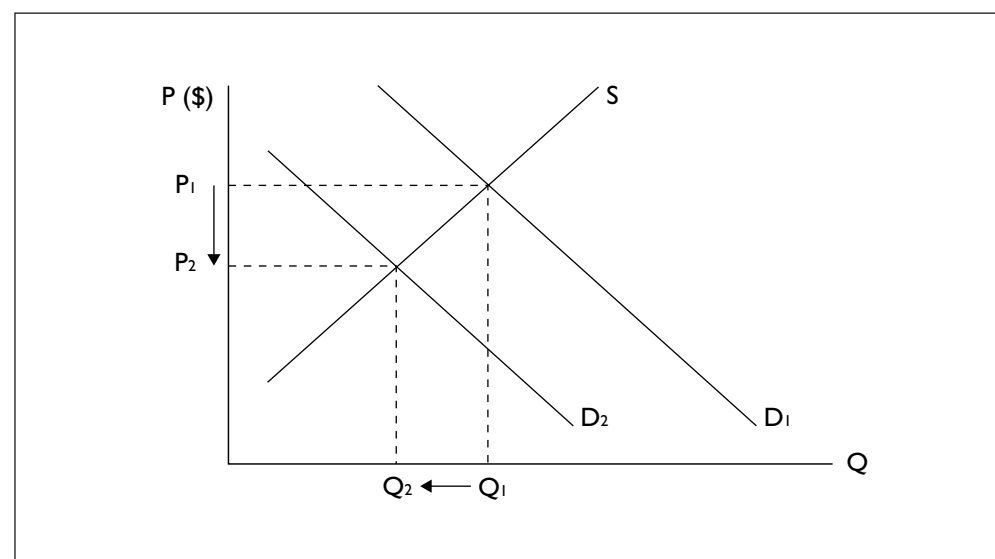


Figure 7.7 Market equilibrium changes

Note the effect on market equilibrium: there has been a decrease in price and a decrease in equilibrium quantity (see Figure 7.7 above).

## An increase in demand

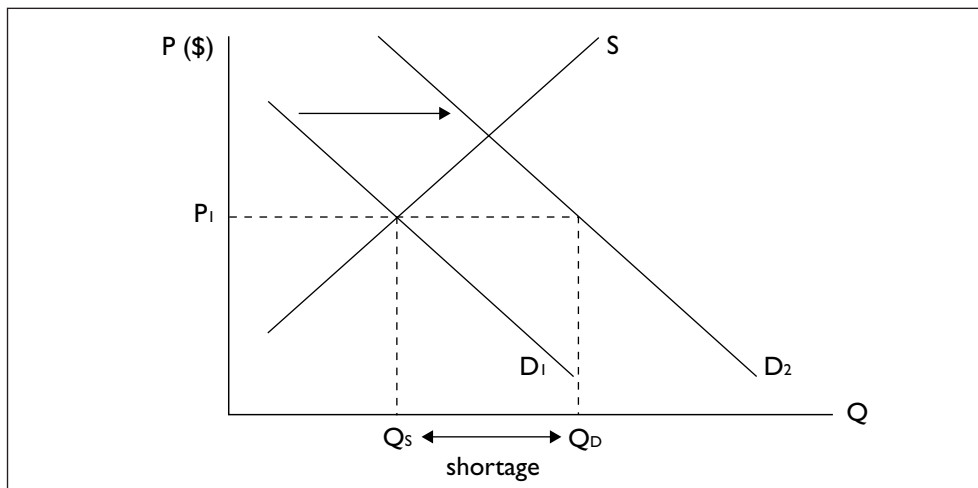


Figure 7.8 An increase in demand

With an increase in income, consumers want and can buy at various prices. This brings an **increase in demand**. The demand curve shifts to the right. The effect of this is to cause a **shortage** at the old equilibrium price ( $P_1$ ). At this old price, consumers want more ( $Q_d$ ) than suppliers produce ( $Q_s$ ) – see Figure 7.8 above.

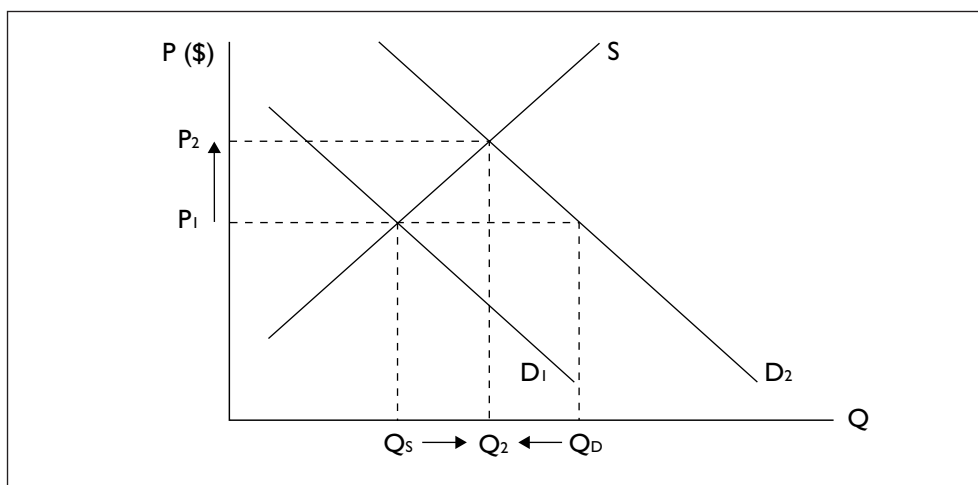


Figure 7.9 A new equilibrium

The price is bid upwards until the quantity supplied equals the quantity demanded at the new equilibrium price and quantity ( $P_2, Q_2$ ) – see Figure 7.9 above.

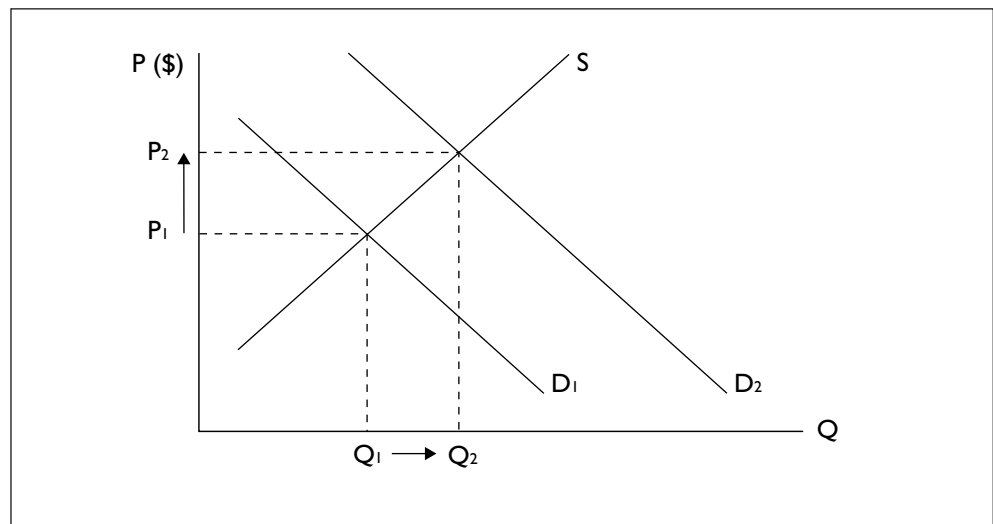


Figure 7.10 Market equilibrium changes

Note the effect on market equilibrium: there has been an increase in price and an increase in equilibrium quantity (see Figure 7.10 above).

## The Effect Of A Change In Both Demand And Supply

In reality, a shift in BOTH supply and demand in the market may affect market equilibrium. How much the equilibrium moves depends on the slope of the curves, and how far each curve shifts in which direction.

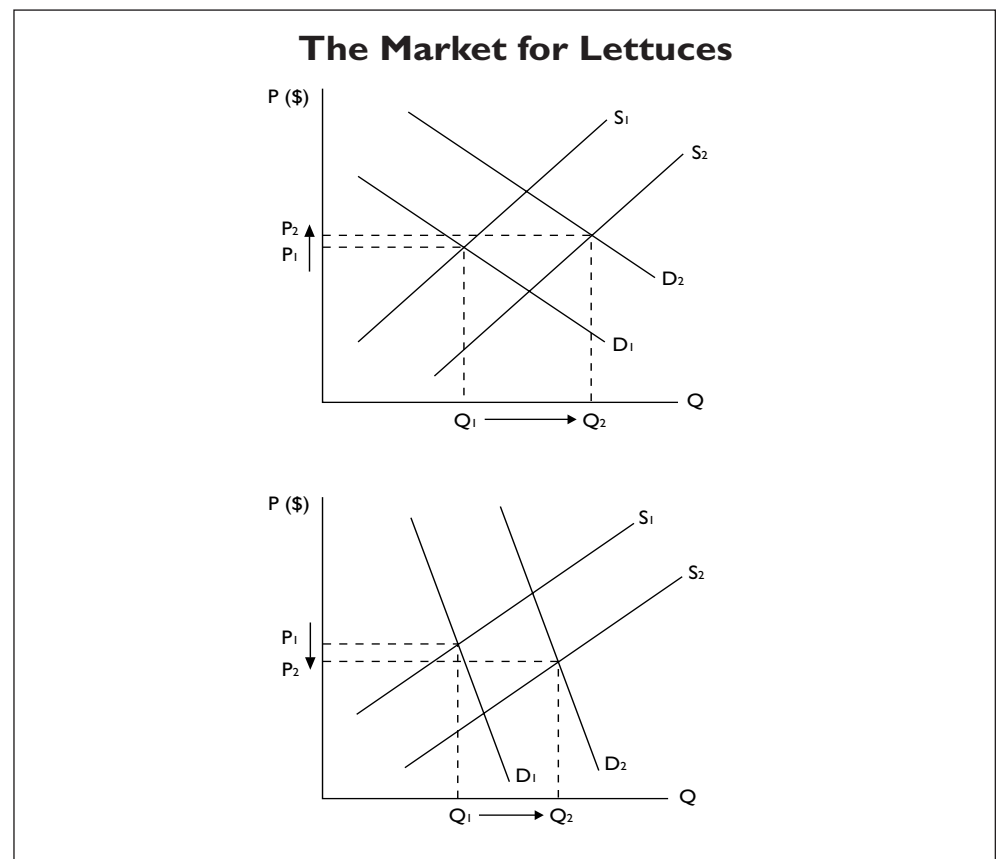


Figure 7.11 A change in both demand and supply

## Activities

- 1 Below are market demand and supply curves for six different markets. Copy each graph into your book and show the effect of each influence on each graph.

The name of each market (e.g. ashtrays) is written above its demand and supply curve and each influence is written under the graph (e.g. movie stars stop smoking).

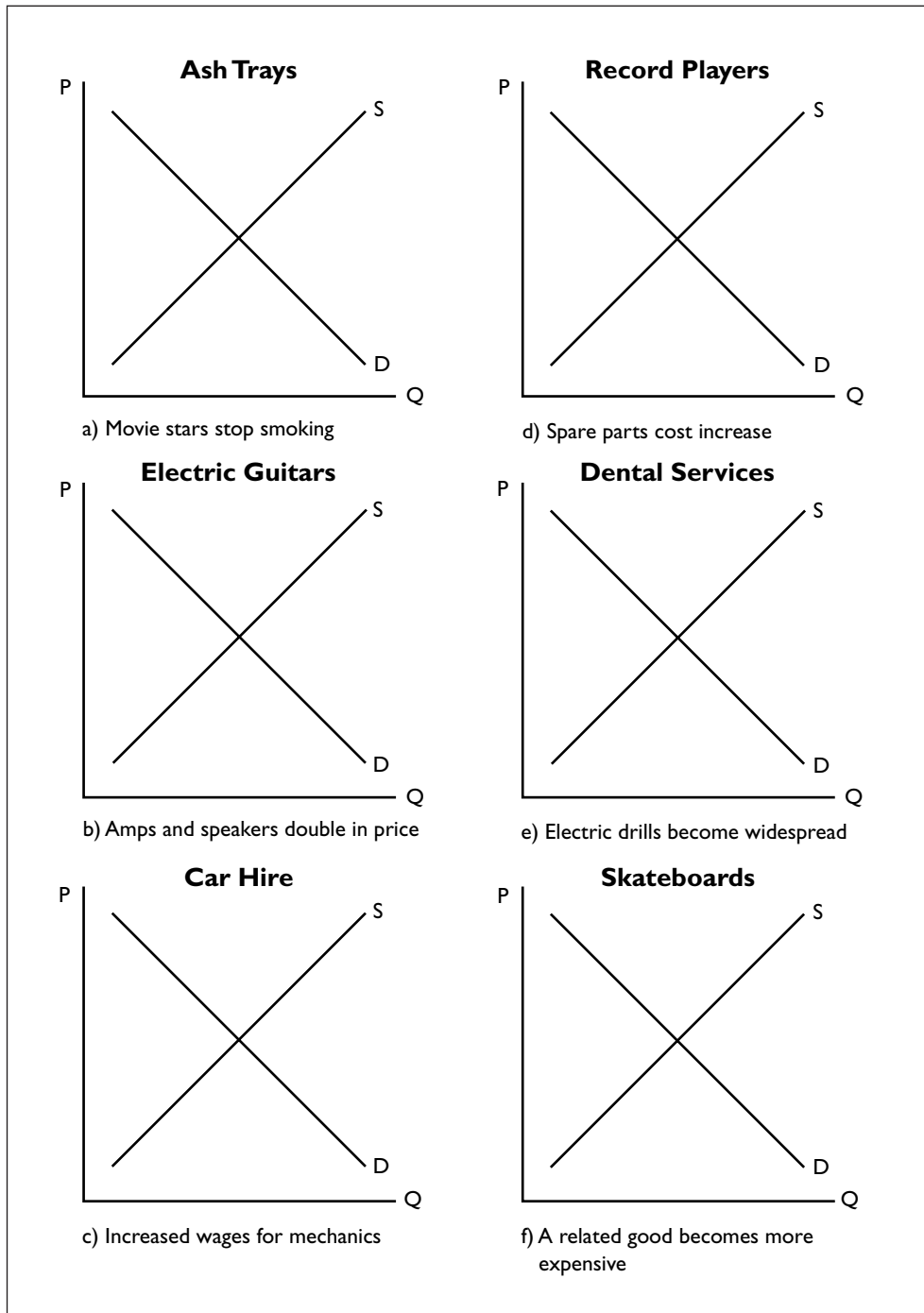


Figure 7.12 Market demand and supply curves for six different markets





2 Use the schedule below to answer the following questions.

Table 7.1

<i>The Market for Electric Fans in Sāmoa</i>		
Price (\$)	Quantity Demanded (000s)	Quantity Supplied (000s)
50	30	5
75	20	10
100	15	15
150	7	25
200	3	30

- Draw a set of axes and show the market for electric fans in Sāmoa. Make sure that the graph has a title, that the axes have an even scale, that the line is accurate and that the axes and line are labelled.
- Show on the graph the equilibrium price and quantity for this market. Label them  $P_{eq1}$  and  $Q_{eq1}$ .
- Suppose there is new technology to produce electric bottle-openers, resulting in an increase in supply. Suppose this brings a 100% increase in the amount the producers can and want to supply at each price. Make a new supply schedule.
- Show the new supply curve on your graph.
- Show and label on your graph the new equilibrium price and quantity for this market. Label them  $P_{eq2}$  and  $Q_{eq2}$ .
- Explain the effect of the change in price and quantity.

3 Use the schedule below to answer the following questions.

Table 7.2

<i>The Market for Boat Shoes made in New Zealand</i>		
Price (\$)	Quantity Demanded (pairs: 000s)	Quantity Supplied (pairs: 000s)
60	100	40
70	80	60
80	60	80
90	40	100
100	30	120

Note: You will need to use graph paper to be successful for this exercise!!



- a In your book draw a set of axes and show the market for boat shoes in New Zealand. Make sure the graph has a title, that the axes have an even scale (use increments of \$5 and 5000), that the lines are accurate and that you label the axes and lines.
  - b Show on your graph the equilibrium price and quantity for this market.
  - c Assume that there is a wage increase for the whole country. Consumers will now buy more at each price. Demand increases by 10%. Create a new demand schedule.
  - d Because wages have risen, this has caused the costs of production to increase. Suppliers cut by 5% what they are willing to supply at each price. Create a new supply schedule.
  - e Plot the new demand and supply curves on your graph. Label them  $D_1$  and  $S_2$ .
  - f Identify on your graph the new equilibrium price and quantity for this market.
  - g Explain the effect of the change in price and quantity.
- 4 Explain the difference between the following pairs of terms:
- a an increase in quantity supplied and an increase in supply
  - b a decrease in demand and a decrease in quantity demanded
  - c price and cost of production
  - d market demand and consumer demand.
- 5 Copy the following passage and fill in the gaps using words or phrases.

The market will be in equilibrium at a price where the \_\_\_\_\_ equals \_\_\_\_\_. If the price of a substitute good increases there will be a \_\_\_\_\_ in the \_\_\_\_\_ of the substitute good leading to an \_\_\_\_\_ in the market we are considering. This will cause the \_\_\_\_\_ curve to move to the \_\_\_\_\_. The effect on the market will be an \_\_\_\_\_ in equilibrium price and an increase in equilibrium \_\_\_\_\_. When a market is not in equilibrium there will either be \_\_\_\_\_ or \_\_\_\_\_.



# Unit

## 8

### Government Intervention In The Market

#### *Aims*

On completion of this unit you should be able to:

- ☐ Analyse the effect of price controls, taxes and subsidies on market equilibrium;
- ☐ Compare and contrast price and non-price competition;
- ☐ Describe the effects of price and non-price competition on consumers and producers.

#### **Overview**

Sometimes governments are not satisfied with the prices or quantities of production that the market equilibrium achieves. They may consider the price is too high or too low and so they try to influence the supply or demand or the prices directly. The four types of intervention discussed here are:

- ☐ Price maximum or price ceiling.
- ☐ Price minimum or price floor.
- ☐ Subsidies.
- ☐ Taxes.

#### **Price Maximum**

A government sets a **price maximum** or **price ceiling** to protect the consumer. The price maximum is a legal limit on the highest price a good or service may be sold for. That means that a government has made it illegal to sell this good or service for more than this price. An example could be a food item, such as bread, or another necessary commodity, such as petrol. The government can set a price for such goods so that all consumers can afford it. Unfortunately, lowering the price means the quantity supplied falls and so the good becomes affordable, but unavailable. A **shortage** is created in the market. If the situation is too difficult to manage, the government may have to ration goods.

In the graph (Figure 8.1) below, the maximum price for petrol is set below the equilibrium price and the shortage is the difference between the quantity demanded ( $Q_d$ ) and the quantity supplied ( $Q_s$ ).

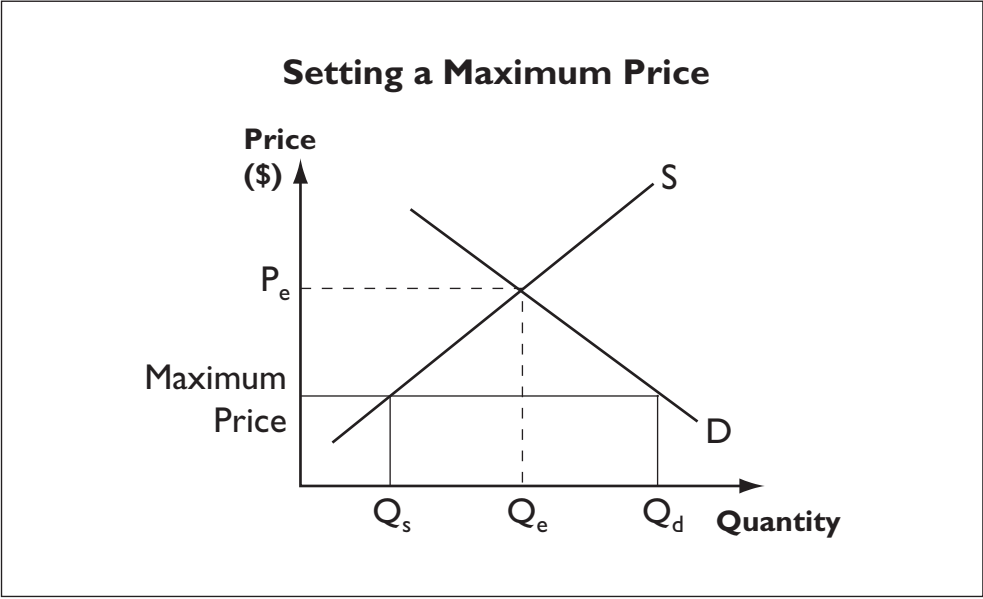


Figure 8.1 Setting a maximum price

$P_{\max}$  is set below  $P_{eq}$ . (The maximum price is below the equilibrium price.)

In other words, the quantity demanded is greater than the quantity supplied, thus creating a shortage.

This is an unsuccessful intervention in the market.

## Price Minimum

A **price minimum** is a price control means a government uses to protect the producer or to protect a resource such as labour. A **price minimum** or **price floor** is a legal limit on the lowest price a good or service may be sold for. That means a government has made it illegal to sell the good or service for less than this price.

The aim of the price minimum is to help producers to earn an income, particularly producers in a market where the prices frequently change, such as producers of oil and wool. In such situations, the producers have very little control and they have to accept the price given by the world market which is determined by supply and demand. When the world prices are high, that industry can make a profit, but when the price is low, the producers suffer. In the 1980s the New Zealand government set a price floor to protect wool producers. They set a minimum price above equilibrium.

Unfortunately, this situation creates a **surplus** or **excess supply** because at a higher price, the quantity demanded decreases. The producers are left with surplus stock that is stockpiled (stored in warehouses) until a buyer is willing to purchase it. In the 1980s, the New Zealand government bought up excess wool from the producers and hoped prices would rise.

Another example of the use of price minimum is when a government decides that the price of labour (wage levels) is below what they consider people can survive on. In this situation, the government sets a minimum wage rate, above the equilibrium.



This intervention by the government can create a surplus as more people want to offer their services or labour. However the quantity of labour demanded falls because producers will not be able to afford as much labour because it is more expensive. This surplus or excess supply in the labour market is called **unemployment**. The diagram below shows this surplus.

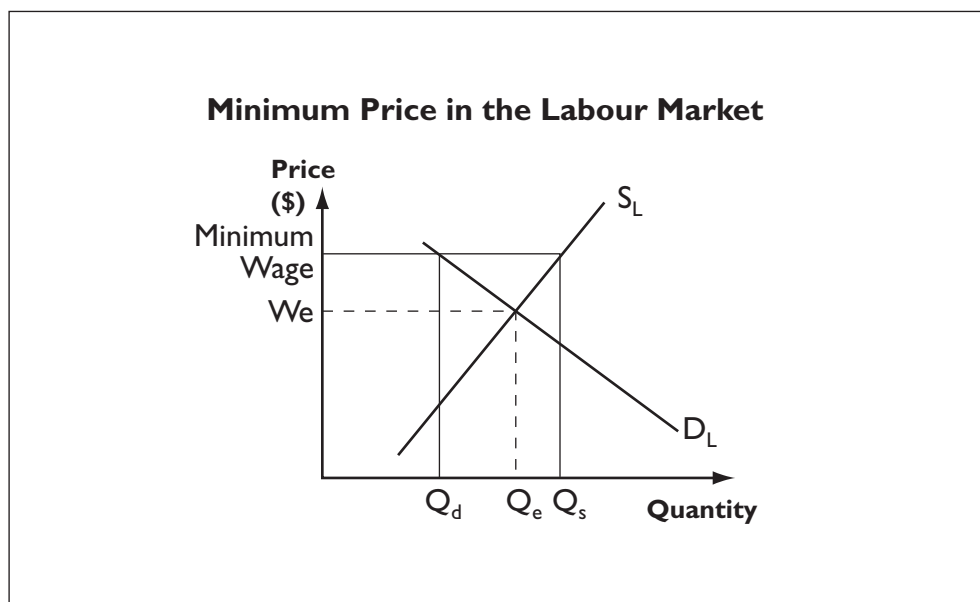


Figure 8.2 Minimum price in the labour market

## Activities

- 1 Match the terms in the box below with the phrases that follow.

government intervention	allocation of resources
free market economy	planned economy
maximum price control	floor price
surplus	excess demand
mixed economy	rationing

- a When a law is set to keep the price of a good or service above equilibrium; also called a minimum price control.
- b When the Government of a country decides what will be produced in that country, how and for whom.
- c When the problem of scarcity is dealt with partly by the government and partly by the forces of supply and demand.
- d This is the result when price is below equilibrium level.
- e When the government is unhappy with the outcome of the free market and overrules market equilibrium.
- f When supply exceeds demand.
- g When the government sets the price below market equilibrium; also called a price ceiling.
- h One way of allocating a limited supply of goods or services when there is a shortage; may involve the use of coupons.
- i How resources are to be distributed.
- j When an economy has no government interference in the allocation of resources.

- 2 True or false?** State whether the following are true or false. If they are false, rewrite the sentences to make true statements. (Do not just change a negative sentence to a positive one or vice versa, but rewrite them.)
- Price controls can only be in place in a planned economy if the government has total control over decision-making.
  - Free market economies are the only economies that are able to solve the problem of scarcity.
  - Most economies are mixed economies, but they may lean more towards free market or planned economies.
  - A minimum price control must be set above equilibrium price to be effective.
  - A maximum price control must be set above equilibrium price to be effective.
  - Setting a ceiling price above equilibrium would not be effective because the price level would simply drop back to equilibrium.
  - A floor price set by the government would result in a surplus of stock.
  - It is illegal to sell a good at a price that is above the minimum price when a minimum price control is in place.
  - The excess supply that results in the labour market as a result of a minimum wage above equilibrium is called unemployment.
  - Black market activity is selling and buying goods illegally.
- 3** Accurately copy the following graph into your book and answer the questions which follow.

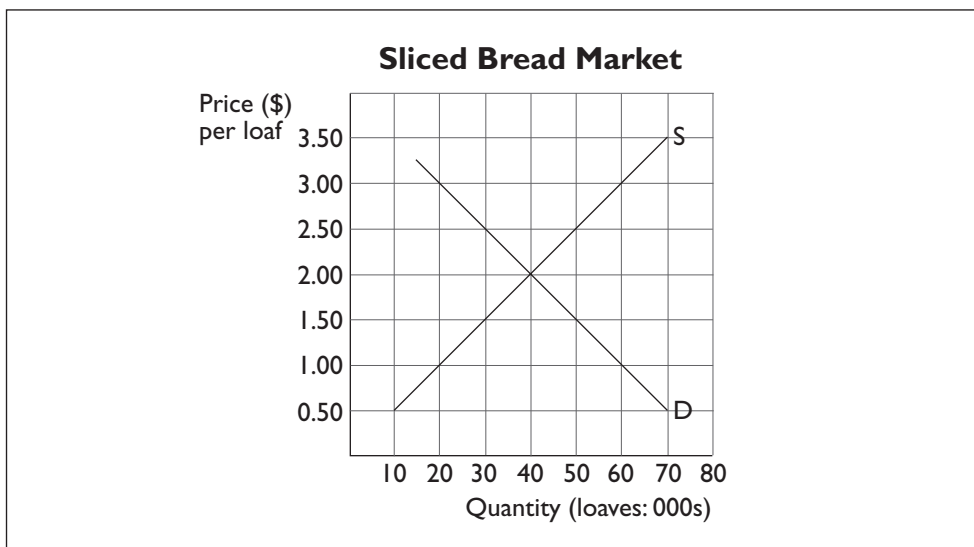


Figure 8.3 Sliced bread market

- Show on the graph what would happen if a government imposed a maximum price for bread of \$1.50 per loaf.
- Identify on the graph the new quantity of bread supplied. Label it  $Q_s$ .
- Identify on the graph the new quantity of bread demanded. Label it  $Q_d$ .
- Correctly label the difference between the new quantity supplied and quantity demanded.
- How much has quantity of bread supplied to this market changed?
- What was the change in total value of bread sales after the maximum price was imposed?
- Explain why a maximum price set at \$2.50 would have no effect.



4 Accurately copy the following graph and answer the questions which follow.

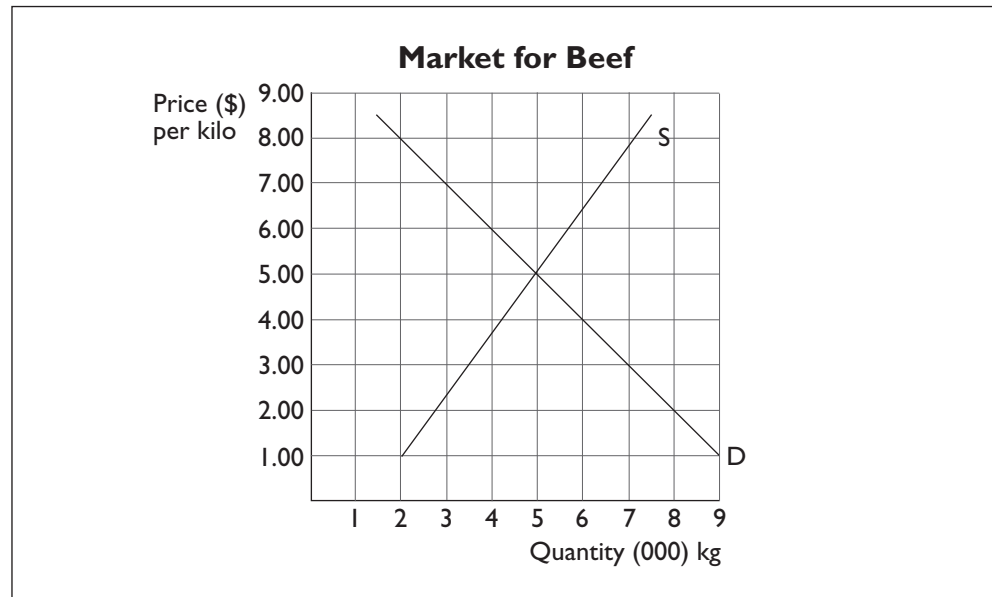


Figure 8.4 Market for beef

- What is the market equilibrium price and quantity for beef?
- Assume the government decides this price is not satisfactory and it wants to protect the producer by imposing a minimum price for beef. Show the immediate effect of a minimum price on the graph.
- What has happened because of the minimum price?
- Explain why a minimum price of \$3.00 a kilogram would have no effect.

## Subsidies

A subsidy is what the government pays to producers to lower their costs and encourage people to consume a particular good or service. The government usually does this for **merit goods** or goods that it considers are good for you, e.g. medicines and other similar drugs. In Sāmoa fertilisers for agriculturalists is an example of merit goods. In New Zealand the government gave a subsidy for baby seats to encourage more parents to use these seats for their children in cars in order to keep them safer when an accident occurs. The subsidy by the government is paid for with taxes and therefore the opportunity costs of this spending by the government must be considered.

A subsidy reduces the cost of production and shifts the supply curve to the right. The effect of a subsidy is to decrease the equilibrium price and increase the equilibrium quantity.

For example look at the market for taro plant fertiliser.

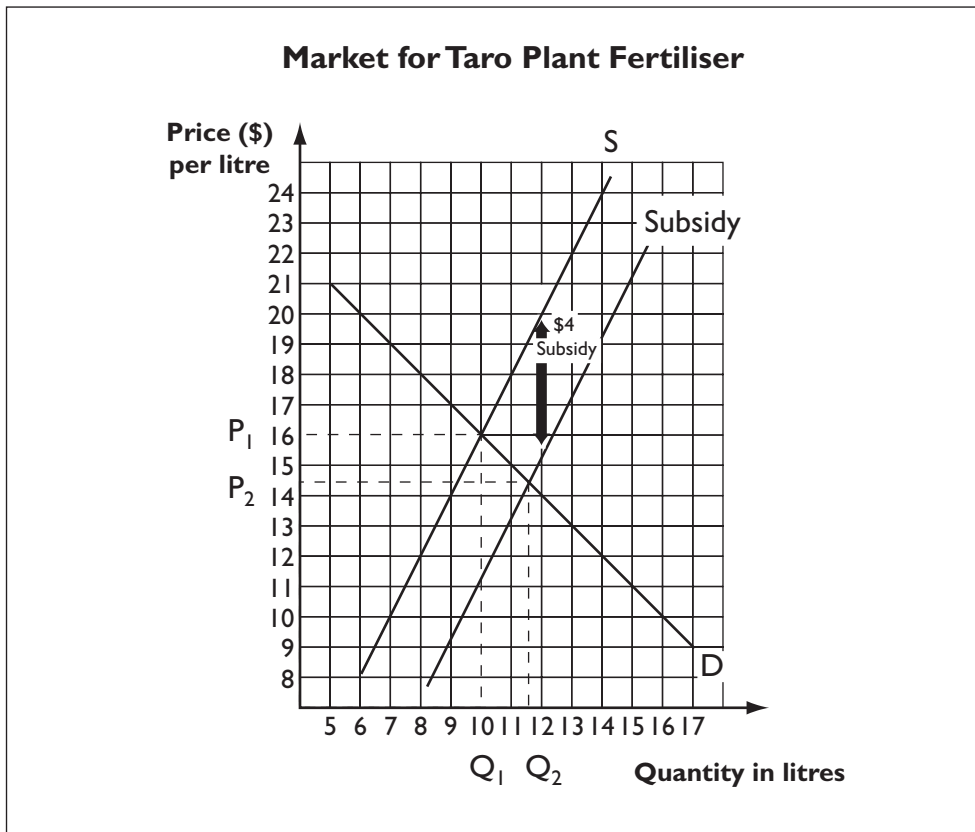


Figure 8.5 Market for taro plant fertiliser

- ☐ The government considers this fertiliser to be a merit good and that the equilibrium quantity of 10 000 gallons is too low. Therefore the government provides a \$4 subsidy.
- ☐ The new supply curve moves vertically down by the amount of the subsidy.
- ☐ The fall in the price from  $P_1$  to  $P_2$  will not be as much as the subsidy because of the way the curve slopes.
- ☐ The producer only passes on some of the benefit to the consumer
- ☐ The total cost of the subsidy to the government is worked out by multiplying the volume of sales at the new equilibrium by the amount of the subsidy.
- ☐ A subsidy may be more effective than the maximum price as the market still operates at equilibrium.

## Worked example – subsidy for taro plant fertiliser

**Total Revenue is equal to Price x Quantity ( $TR = P \times Q$ )**

### Calculation

- a Calculate the total revenue earned by producers before the subsidy is given:

TR	=	P	x	Q
TR	=	$P_1$	x	$Q_2$
TR	=	\$16	x	1000
	=	\$16 000		



- b** Calculate the total revenue earned by the producers after the subsidy is given

$$\begin{aligned}
 \text{Total Revenue} &= \text{price received} \times \text{number of units sold} \\
 &= (P_2 + \text{subsidy}) \times Q_2 \\
 &= (\$14.50 + \$4) \times 1150 \\
 &= \$18.50 \times 1150 \\
 &= \$21\,275
 \end{aligned}$$

- c** Calculate the total cost of the subsidy to the government.

$$\begin{aligned}
 \text{Total Spending} &= \text{the subsidy per unit} \times Q_2 \\
 &= \$4 \times 1150 \\
 &= \$4600
 \end{aligned}$$

- d** Calculate the total spending of consumers after the subsidy.

$$\begin{aligned}
 \text{Total Spending} &= \text{price paid} \times Q_2 \\
 &= \$14.50 \times 1150 \\
 &= \$16\,675
 \end{aligned}$$

- e** Check calculations:

$$\begin{array}{rcl}
 \text{Total expenditure} & + & \text{Total subsidy paid} & = & \text{Total revenue earned} \\
 \text{by consumers} & & \text{by government} & & \text{by producers} \\
 \$16\,675 & + & \$4600 & = & \$21\,275
 \end{array}$$

## Taxes

The two types of taxes that we discuss here are **direct taxes** and **indirect taxes**. These taxes can be used by the government to influence the supply and demand of goods and services.

### Direct taxes

Direct taxes are those taxes such as personal tax or company tax, which a person or company pays to the Inland Revenue Department. The government uses these taxes to pay for public goods and services such as health, education, defence and other expenses.

### Effects of an Increase in Income Tax

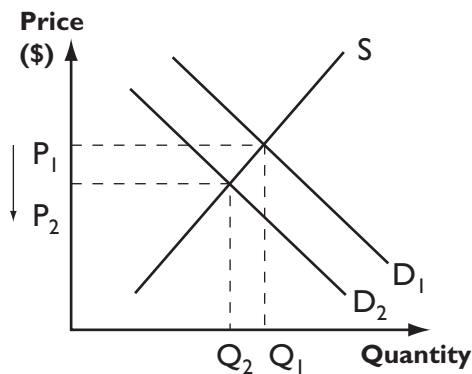


Figure 8.6 Effects of an increase in income tax

If income tax is increased, then this decreases the income people have to spend (disposable income) on goods and services. If people's take-home pay decreases this leads to a decrease in the demand and a shift of the demand curve to the left.

If the income tax rate is decreased, this will have the opposite effect.

Companies have to pay tax on profit that they make. If the government increases the company tax rate, this increases the cost of production, which decreases supply. The supply curve will shift to the left thus increasing the equilibrium price and the equilibrium quantity decreases. The figure shows the effect on the supply curve when the government increases company tax.

### Effects of an Increase in Company Tax

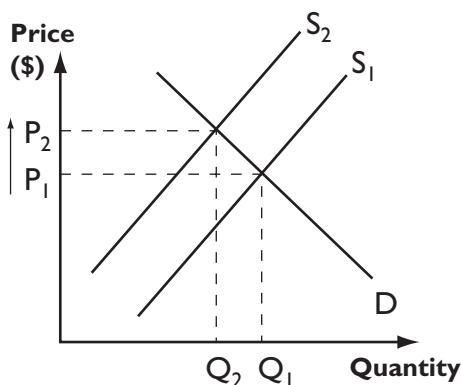


Figure 8.7 Effects of an increase in company tax

Of course the opposite occurs, if the government decreases the company tax rate.

## Indirect taxes

Indirect taxes are taxes where the party that pays for the tax is able to pass some of this tax on to another party (consumer or another producer). In Sāmoa, the most common indirect tax is the value-added goods and services tax (VAGST). Another

form of indirect tax can also be placed on goods that the government considers to be bad, e.g. alcohol or cigarettes. This type of good is referred to as a **demerit good**.

An indirect tax increases cost of production and causes supply to shift to the left. This increases the equilibrium price and decreases equilibrium quantity. An indirect tax is considered to be a more successful form of intervention because it does not create a surplus such as that created for minimum price control.

For example look at the market for cigarettes.

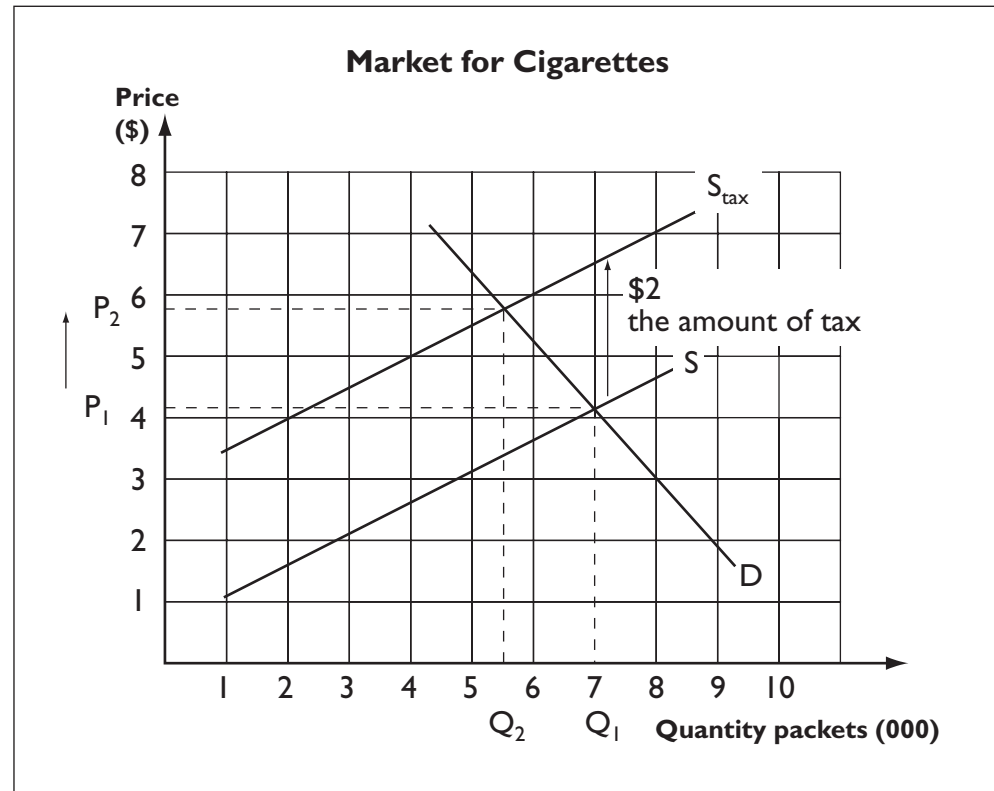


Figure 8.8 The market for cigarettes

The new supply curve will move vertically by the amount of the tax. In the graph shown above, the tax imposed by the government is \$2 per unit sold.

The new equilibrium price ( $P_2$ ) will only change by part of the tax as some of this is passed onto the consumer.

### Worked example – indirect tax on demerit good (cigarettes)

$$\text{Total Revenue} = \text{Price} \times \text{Quantity}$$

#### Calculation:

- a Calculate the total revenue earned by producers before the tax is imposed.

TR	=	P	×	Q
TR	=	$P_1$	×	$Q_1$
TR	=	\$4	×	7000
	=	\$28 000		

- b** Calculate the total revenue earned by the producers after the tax is imposed.

Total revenue	=	price received	×	number of units sold
	=	( $P_2 - \text{tax}$ )	×	$Q_2$
	=	(\$5.70 - \$2)	×	5500
	=	\$20 350		

- c** Calculate the cost of the total revenue earned by the government from the tax.

Total revenue	=	the tax per unit	×	number of units sold
	=	tax	×	$Q_2$
	=	\$2	×	5500
	=	\$11 000		

- d** Calculate the total spending of consumers after the tax.

Total spending	=	price paid	×	quantity bought
	=	\$5.70	×	5500
	=	\$31 350		

- e** Check calculations:

Total expenditure by consumers	–	Total tax collected by government	=	Total revenue earned by producers
\$31 350	–	\$11 000	=	\$20 350



## Activities

1 Match the terms in the box below with the phrases that follow.

tax	direct tax	indirect tax
PAYE	company tax	subsidy
merit good	demerit good	

- a An example of a direct tax. As a worker earns income, their income tax is paid to the government before they even get it in their hand. The firm usually organises this.
  - b A good that society or the government decides you should have because it is good for you.
  - c Payment a government makes to some firms to encourage an increase in output and a decrease in price.
  - d When the government or society decides a good is bad for you and will discourage the consumption of it.
  - e A financial payment made to the government. It uses the income to pay for things such as public goods.
  - f When part of the load of the tax is able to be passed onto someone else.
  - g Tax which is paid to the government by the person who carries the burden of the tax.
  - h When a firm is a separate legal entity it must pay a percentage of profits to the government.
- 2 **True or false?** State whether the following are true or false. If they are false, rewrite the sentences to make true statements. (Do not just change a negative sentence to a positive one or vice versa, but rewrite them.)
- a PAYE is an example of an indirect tax – that is, when the person who earns the income pays the tax money to the IRD as they earn the income.
  - b When your income increases, the percentage of your income that you pay in tax, also increases.
  - c Disposable income means the income after tax and other deductions have been paid.
  - d An increase in income tax rates will eventually lead to a fall in equilibrium price and quantity.
  - e Direct taxes are when a firm can directly pass some of the tax onto another party.
  - f A minimum price control may be more effective than an indirect tax because the government has more control over the price.
  - g To show the effect of a subsidy on a graph, shift the supply curve to the right. The vertical distance between the two curves is the amount of the subsidy – not the price change.



- 3 Study the following supply and demand schedule and draw a graph in your book showing the market for milk. Then answer the questions that follow.

Table 8.1

<i>Supply and Demand Schedule for the Milk Market</i>		
Price (\$)	Quantity Demanded (litres: 000s)	Quantity Supplied (litres: 000s)
0.95	27	10
1.00	26	17
1.05	25	20
1.10	23	23
1.15	20	24
1.20	18	25

- a Show on the graph what would happen if the price of milk rose to \$1.20 per litre, all other things remaining the same.
- b Explain how the market will respond to this situation.
- c Suppose the government was to subsidise milk by \$0.05 per litre.

i State the effect of a subsidy on:

- ☐ equilibrium price
- ☐ equilibrium quantity.

ii What is one advantage of subsidies over price controls?

iii On the graph, show the effect on the market of the \$0.05 per litre subsidy.

(Note: When you are asked to show the effect be sure to use dotted lines and show the changes in equilibrium price and quantity.)

- 4 Use the following graph to answer the questions that follow.

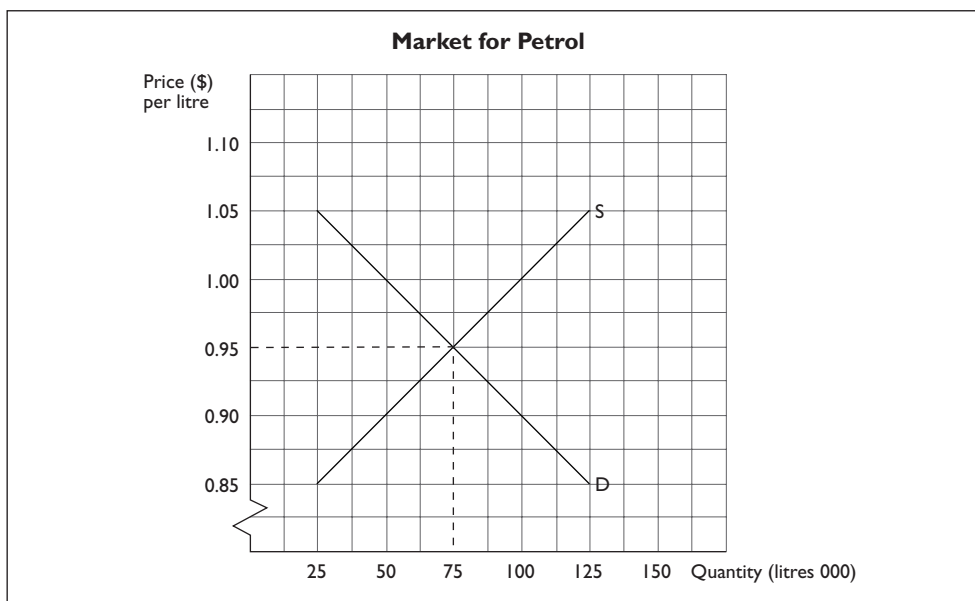


Figure 8.9 Market for petrol



- a Use the graph from the previous page to prepare a supply and demand schedule for the petrol market.
  - b Give ONE reason why the government might want to put a per unit tax on petrol.
  - c Draw the graph (Figure 8.9 from the previous page) and show what happens when the government puts a \$0.10 per litre tax on petrol.
  - d After the tax is in place, what is the new:
    - ☐ equilibrium price?
    - ☐ equilibrium quantity?
  - e Calculate the total tax revenue that the government will receive.  
(Clue: the government will receive \$0.10 per unit sold.)
  - f Of that \$0.10 tax, how much will the producer pay?  
(Clue: \$0.10 minus consumers' part equals producers' part.)
- 5 The schedules below show the weekly market demand for beer and the weekly market supply for beer. Use this information to answer the questions that follow:

Table 8.2

<i>The Weekly Market Demand for Beer</i>	
Price (\$)	Quantity (500 ml bottles)
3.00	4000
3.50	3700
4.00	3500
4.50	3000
5.00	2250
5.50	2000
6.00	1200

Table 8.3

<i>The Weekly Market Supply for Beer</i>	
Price (\$)	Quantity (500 ml bottles)
3.00	1200
3.50	2000
4.00	2250
4.50	3000
5.00	3500
5.50	3700
6.00	4000



- a Plot the market for beer.
  - b Show the effect when the government imposes a \$1 tax.
  - c What has happened to the equilibrium price and quantity?
  - d Calculate the following:
    - ☐ Total revenue for the producer before the government imposes the tax.
    - ☐ Total revenue for the producer after the government imposes the tax.
    - ☐ Total revenue the government collects from the tax.
    - ☐ Total consumer expenditure after the government imposes the tax.
    - ☐ The percentage change in total producer revenue.
    - ☐ The percentage change in consumer expenditure.
  - e Explain the benefits of imposing a tax.
  - f What is the relationship between producers' total revenue after the tax *and* government revenue from the tax and consumer expenditure?
- 6 The schedules below show the weekly market demand for fish and the weekly market supply for fish. Use this information to answer the questions that follow.

Table 8.4

*The Weekly Market Demand for Fish*

Price (\$/kg)	Quantity (000 kg)
6.00	16
6.50	13
7.00	10
7.50	7
8.00	4
8.50	2
9.00	1

Table 8.5

*The Weekly Market Supply for Fish*

Price (\$/kg)	Quantity (000 kg)
6.00	1
6.50	2
7.00	4
7.50	7
8.00	10
8.50	13
9.00	16





- a** Plot the market for fish.
- b** Show the effect when the government imposes a \$0.50 subsidy.
- c** What has happened to the equilibrium price and quantity?
- d** Calculate the following:
  - ☐ Total revenue for the producer before the government imposes the subsidy.
  - ☐ Total revenue for the producer after the government imposes the subsidy.
  - ☐ The total cost to the government of the subsidy.
  - ☐ The total consumer expenditure before the government imposes the subsidy.
  - ☐ Total consumer expenditure after the government imposes the subsidy.
  - ☐ The percentage change in total producer revenue.
  - ☐ The percentage change in consumer expenditure.
- e** Explain why the government would pay a subsidy.
- f** What is the relationship between producers' total revenue after the subsidy *and* government spending on the subsidy and consumer expenditure?

## Circular Flow

### Aims

On completion of this unit you should be able to:

- ☐ Distinguish between dependence, independence and interdependence;
- ☐ Describe the role of the sectors – households, producers, financial, government and overseas – in the economy of Sāmoa;
- ☐ Identify flows into and out of the overseas and government sectors;
- ☐ Construct a circular flow model, showing both money and goods and services;
- ☐ Differentiate between real and money flows;
- ☐ Explain and identify injections and withdrawals;
- ☐ Define and calculate GDP using the expenditure and income approaches;
- ☐ Relate these approaches to the simple circular flow model.

### Overview

The circular flow diagram or model shows the relationships between sectors of the economy. The idea of the circular flow was introduced in earlier books and focused on the household or consumer and producer sectors.

The Year 11 book introduced two other sectors to the model, the government and financial institution sectors. In this unit we look at the circular flow model which includes the overseas sector as well as review the role of the other sectors. We will look at the appropriate real flows and money flows between all these sectors.

## Real Flows And Money Flows

**Real flows** are when actual goods and services move between different sectors of the economy. For example, the use of labour by a producer or clothing purchased by a household is a real flow.

**Money flows** are the payments made for the goods purchased or the services that are provided. For example, the payment of wages in return for the use of labour or the payment for the purchase of clothing is a money flow.

Let us review the simple circular flow diagram from Unit 1.

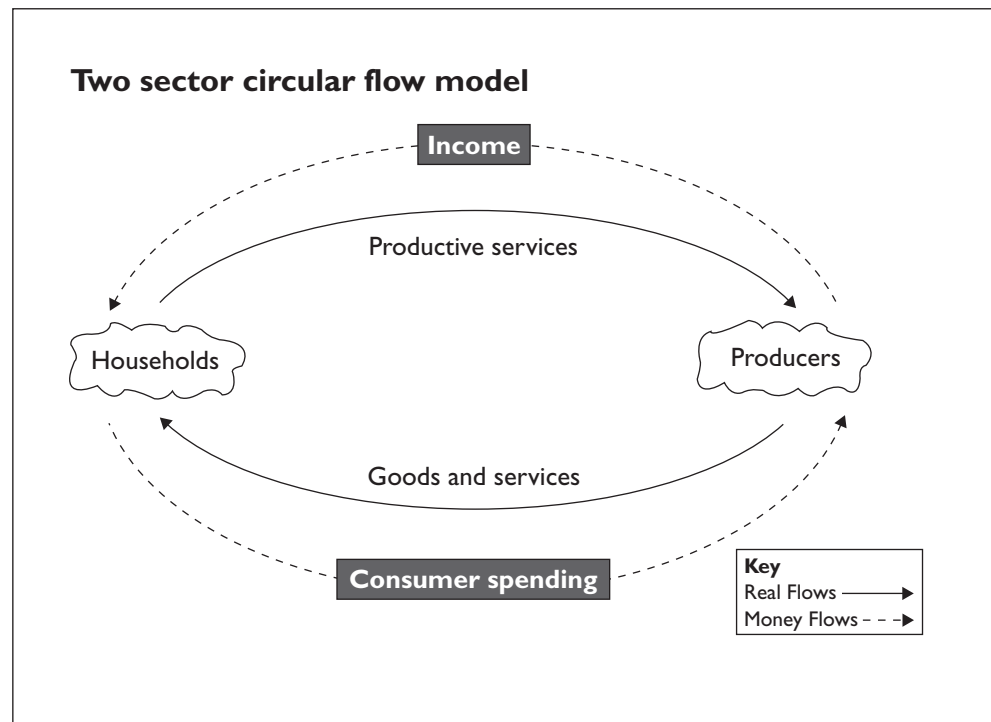


Figure 9.1 Two sector circular flow model

The households provide their productive services such as labour and entrepreneurial skills (real flow) in exchange for wages and profit (money flows). The producers provide goods and services that the households want (a real flow) in exchange for payment with money (money flows). The two sectors rely on each other, that is, they are interdependent.



Figure 9.2 Used car yard

## The Overseas Sector

A **closed economy** is an economy which trades domestically only – that is, it does not sell to overseas countries and it does not buy from overseas countries.

An **open economy** is when a country trades with other countries. Since different countries have different human, capital and natural resources they are able to produce different goods and services, or are able to produce them better than other countries.

Sāmoa has natural conditions which are ideal for producing bananas, copra and cacao beans. Therefore Sāmoan producers are able to produce enough of these crops to satisfy the domestic demand and have a surplus left over that is able to be **exported** overseas.

Japan is able to manufacture radios at a cost that is much lower than Sāmoan firms can make radios for, because of factors such as technology, economies of scale and the management systems they use. Therefore, Sāmoans can import radios more cheaply from Japan, rather than buy Sāmoan assembled radios.

By taking part in international trade, countries can increase their standard of living. In our example, the bananas, copra and cacao beans (exports) and the Japanese radios (imports) are the real flows.

The money flows are the payments for these goods – import payments going to Japan and export receipts received by Sāmoan producers (growers).

Money that is taken out of a country’s economy, such as import payments, are known as a **withdrawal from the circular flow**. Money which is put into the economy, such as export receipts, is known as an **injection**.

The overseas sector and the producers are interdependent. The overseas sector relies on Sāmoan producers to purchase their goods and services so they can earn more income. The Sāmoan producers rely on the overseas sector to buy their goods and services so that they can earn more income.

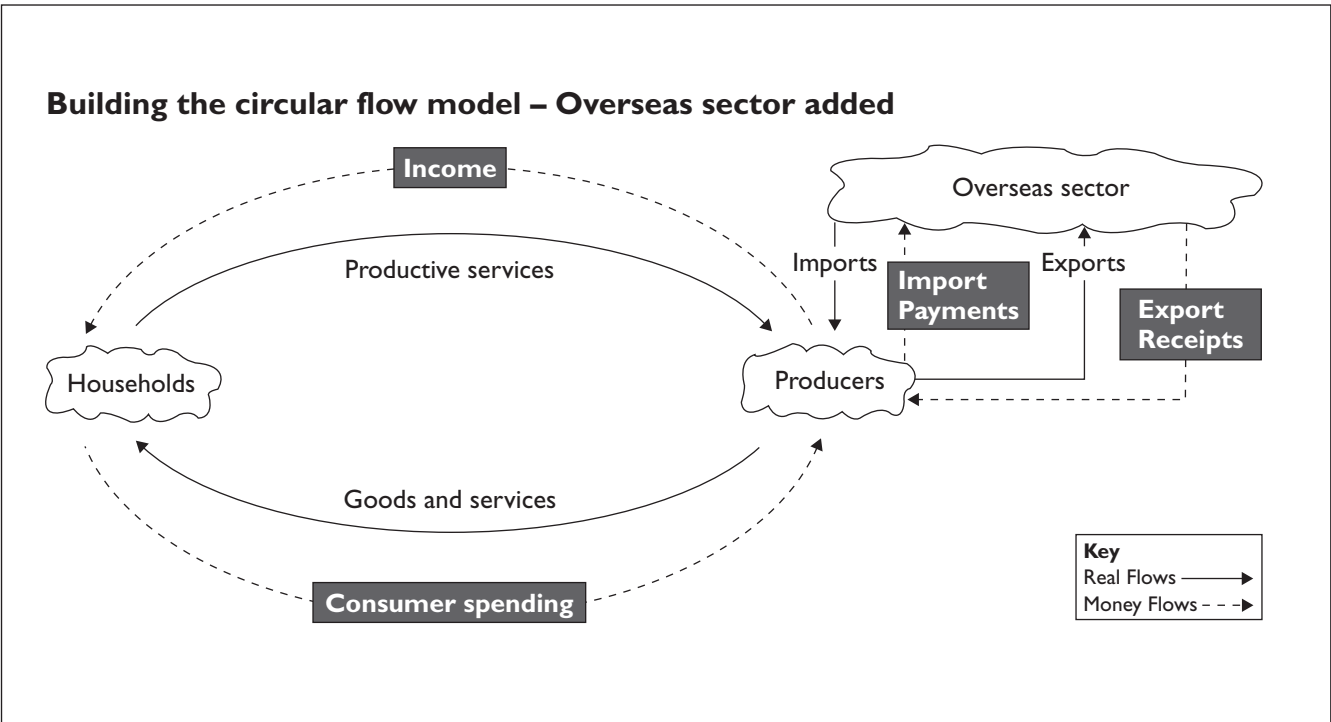


Figure 9.3 Circular flow model combined with overseas sector

## The Financial Sector

In Economics there are two things that consumers can do with their income. They can spend it or they can save it.

Consumers usually save their money in a financial institution where they can earn interest.

Firms that want to **invest** (increase their stock of capital goods) usually need to borrow money in order to do that. Investment usually takes place when producers feel confident about the future – they expect to sell more in the future. Firms may not have the finance to buy the extra capital. Therefore, they usually borrow money in order to invest.

Firms will borrow the funds from the same financial institutions that the households save with (usually banks). In effect, they borrow from the consumer and the financial institution acts as an *intermediary* – a go-between.



**Household savings** is another example of a withdrawal from the circular flow, and investment is an injection.

The financial sector and households are interdependent. The financial sector and producers are also interdependent.

The financial sector *relies on households to give them savings* so that they have funds to loan out. Households rely on the financial sector to pay them interest on savings.

The financial sector *relies on producers to borrow and pay interest* so that the financial sector earns income. Producers rely on the financial sector so they can borrow and invest in capital goods.

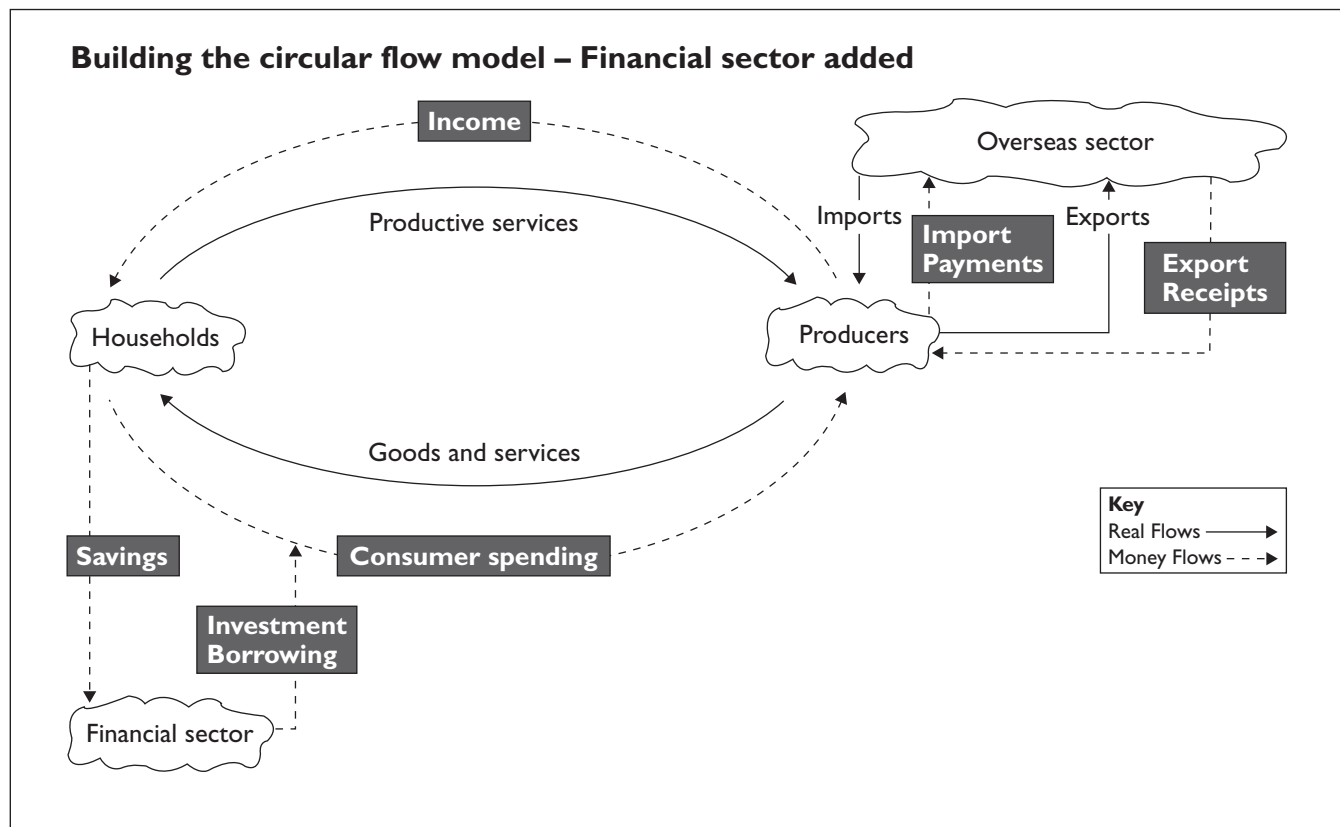


Figure 9.4 Circular flow model combined with overseas and financial sectors

## The Government And The Economy

The government plays a very important role in the provision of goods and services in Sāmoa. The government provides:

- ❑ **Public goods** – (like electric power) which we, as a society want to have but private firms are not likely to provide because they would not make a profit out of them.
- ❑ **Merit goods** – goods which the government or society believes you should have because they are good for you. The government has traditionally considered healthcare and education as merit goods so the government provides them. However, the government does not provide all merit goods. Refrigerators that keep food fresh and thus keep it safe for you are merit goods but the government doesn't provide refrigerators.

Government spending is a part of the circular flow diagram. Government spending includes paying teachers salaries, maintenance of hospitals, paying for the fire service. This money flow is shown in the following diagram.

The money that pays for these goods and services comes from taxes. Tax is the government's main form of revenue. It may be paid directly to the government. Income tax is paid in this way. This is why a percentage of each worker's income goes directly to the government. *Company tax* and *tax on interest earned* are also direct taxes. Tax may also be paid indirectly such as Value-added Goods and Services Tax (VAGST). Producers pay this tax to the government but collect the money by increasing the price of the goods and services. So the consumer indirectly pays the tax.

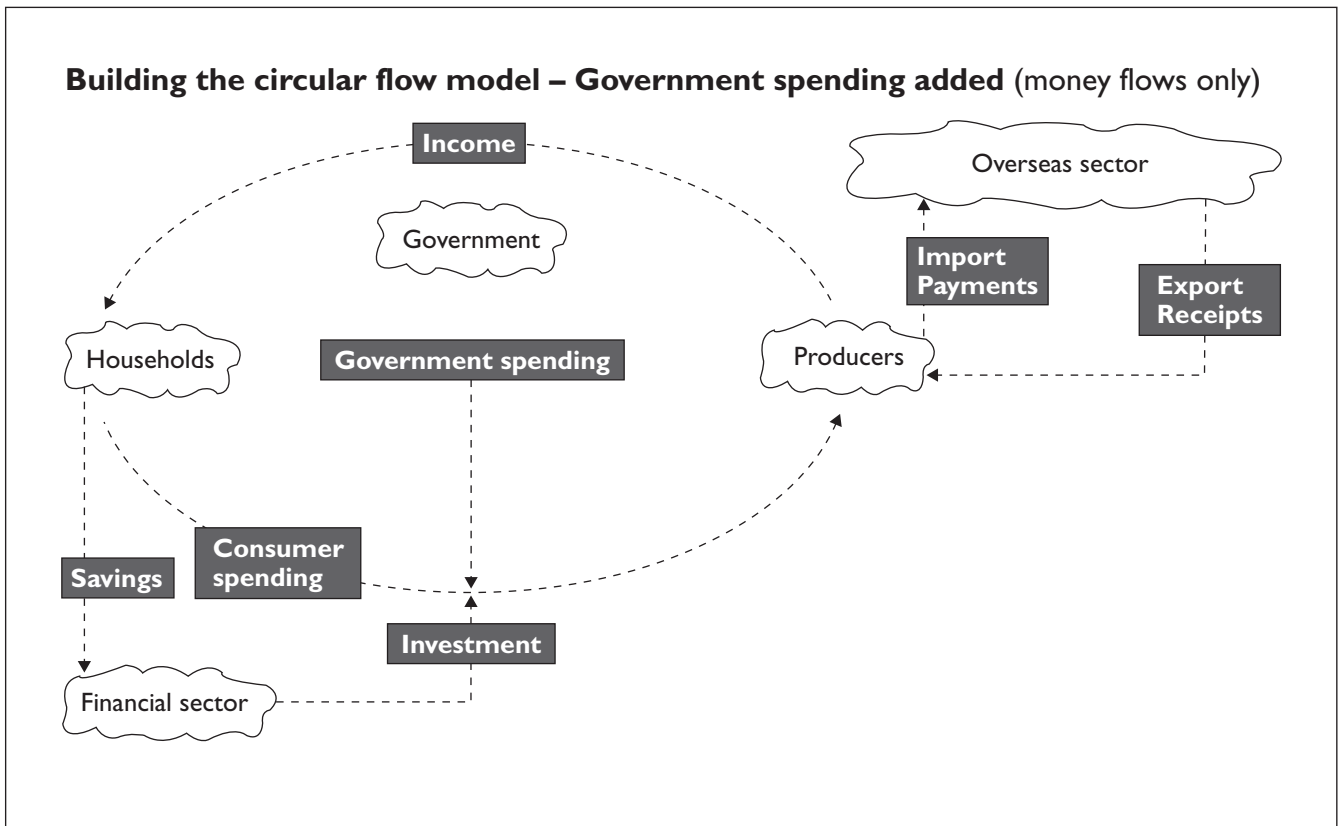


Figure 9.5 Circular flow model combined with government spending

Tax, then, reduces the income flow to the households. It is a withdrawal from the circular flow of the economy.

Some taxes are transferred from one group in society (the tax payer) to another (beneficiaries). When people receive income support from the government, such as the unemployment benefit, the sickness benefit, domestic purposes benefit, the finance has come from tax payers. Tax paid to the government is then injected back into the income flow of the circular flow diagram as follows. These are called **transfer payments**.

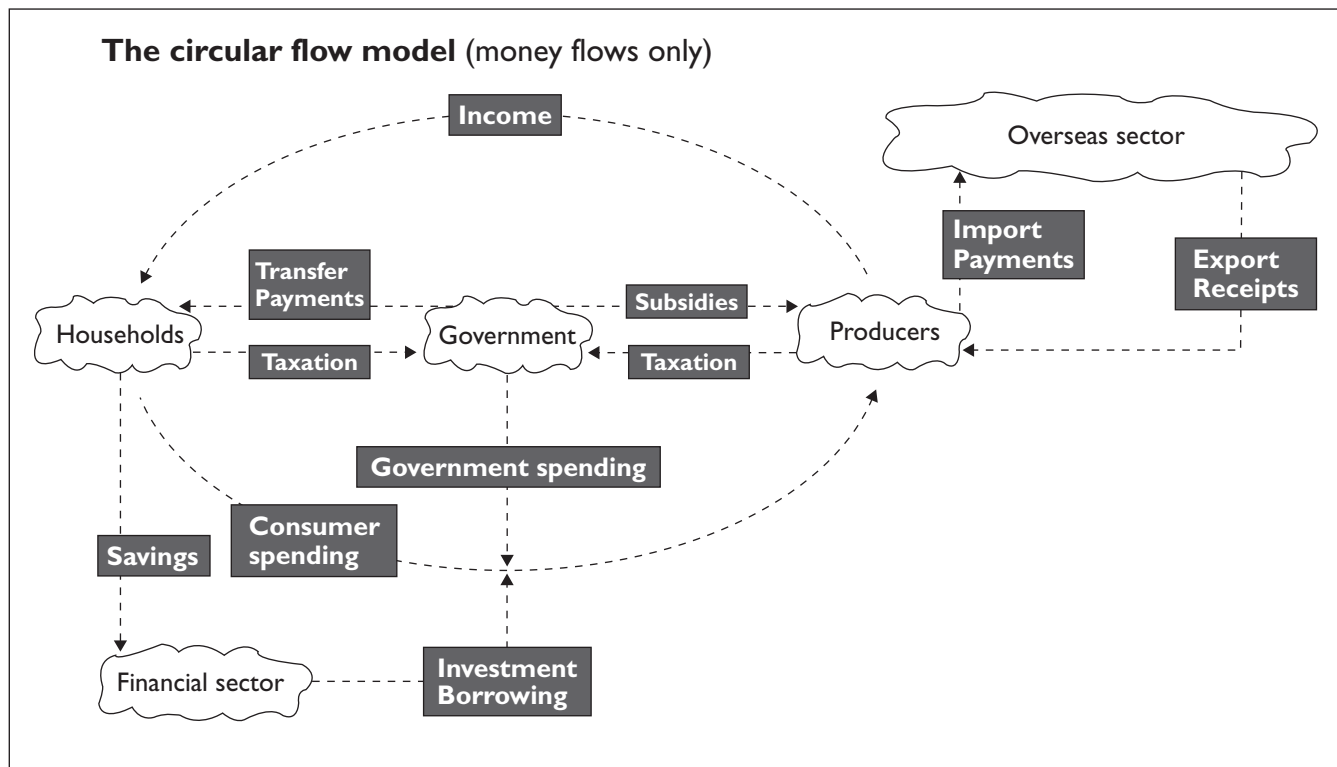


Figure 9.6 Circular flow model

**Subsidies** are payments the government sometimes makes to producers to reduce the firm's costs of production to help them to increase supply. Subsidies are also paid for out of taxation.

The government and households are interdependent. The government needs households to pay tax and households need the government to pay transfer payments and provide goods and services.

Remember, **interdependence** means *to rely on each other*. Each of the five sectors of our economy are interdependent with one another.

## Activities

- 1 Match the terms in the box below with the phrases that follow.

real flows	money flows	productive services
savings	transfer payments	withdrawal
injection	export receipts	import payments
interdependence	open economy	closed economy

- Money earned by a government through taxes, transferred back to the public in the form of non-earned income, such as benefits.
- A country which trades with other countries.
- Payment for goods and services purchased from overseas.
- Payment received for goods and services sold overseas.
- Goods and services move between different sectors of the economy.
- The part of income which is not spent.

- g** A country which does not trade with other countries.
- h** The dollars which flow between sectors of the economy in exchange for the goods and services provided.
- i** When money leaves the economy.
- j** Resources owned by households which the producers use in exchange for wages.
- k** To rely on each other.
- l** When money enters the economy.

**2 True or false?** State whether the following are true or false. If they are false, rewrite the sentences to make true statements. (Do not just change a negative sentence to a positive one or vice versa, but rewrite them.)

- a** A real flow is when money moves between different sectors of the economy.
- b** The circular flow diagram shows how the major sectors of the economy are interdependent.
- c** Export receipts are a withdrawal from the circular flow diagram.
- d** The payment for the use of money is called a loan.
- e** Countries only import from another country if they cannot produce the goods or services themselves.
- f** Overseas firms are interdependent with New Zealand firms because they need each other to buy each others' goods and services so they can earn income.
- g** In economics, to 'invest' means to put your money in the bank to earn interest.
- h** When the Government uses taxes to pay beneficiaries income support, this is called transfer payments.

**3** Copy the circular flow diagram below. Give the correct names of the sectors marked (A to D) and show the money flows that are marked by the letters S to Z.

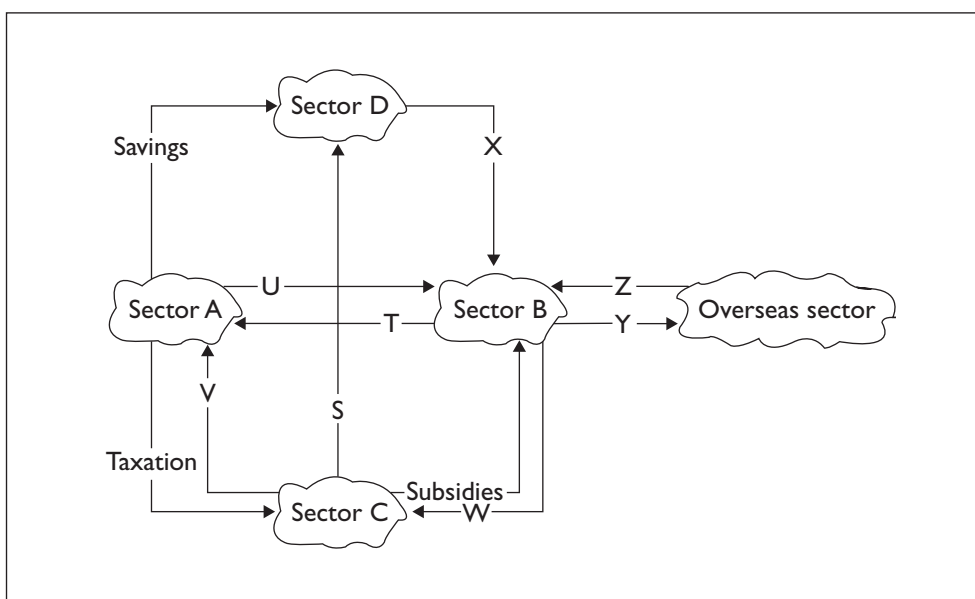


Figure 9.7 Circular flow diagram



- a Identify which sector a supermarket would fit into.
- b Identify which sector the Central Bank of Sāmoa would fit into.
- c Identify the flow that a Value-added Goods and Services Tax (VAGST) payment would be shown by.
- d An example of a real flow is human resources. Name the money flow which is paid if human resources are used.
- e Identify the flow that would represent a sale of cacao beans to Australia.

## Measuring Gross Domestic Product (GDP)

**Gross Domestic Product** is the value of all goods and services produced for sale within a country in a year and measured in current or market prices. GDP is therefore a **nominal** value because it is measured in current prices. **Real GDP** refers to nominal GDP that has been adjusted for price changes in relation to some base (or stated) year. GDP can be measured in two ways:

- ❑ the **income approach**, or
- ❑ the **expenditure approach**.

We can obtain the total value of the output of an economy by measuring the incomes earned in the production or spending on this same production. If we assume all goods and services that are produced are consumption goods, and that all income is spent on consumption goods, then the value of spending on national output will always equal the value of incomes earned (national income).

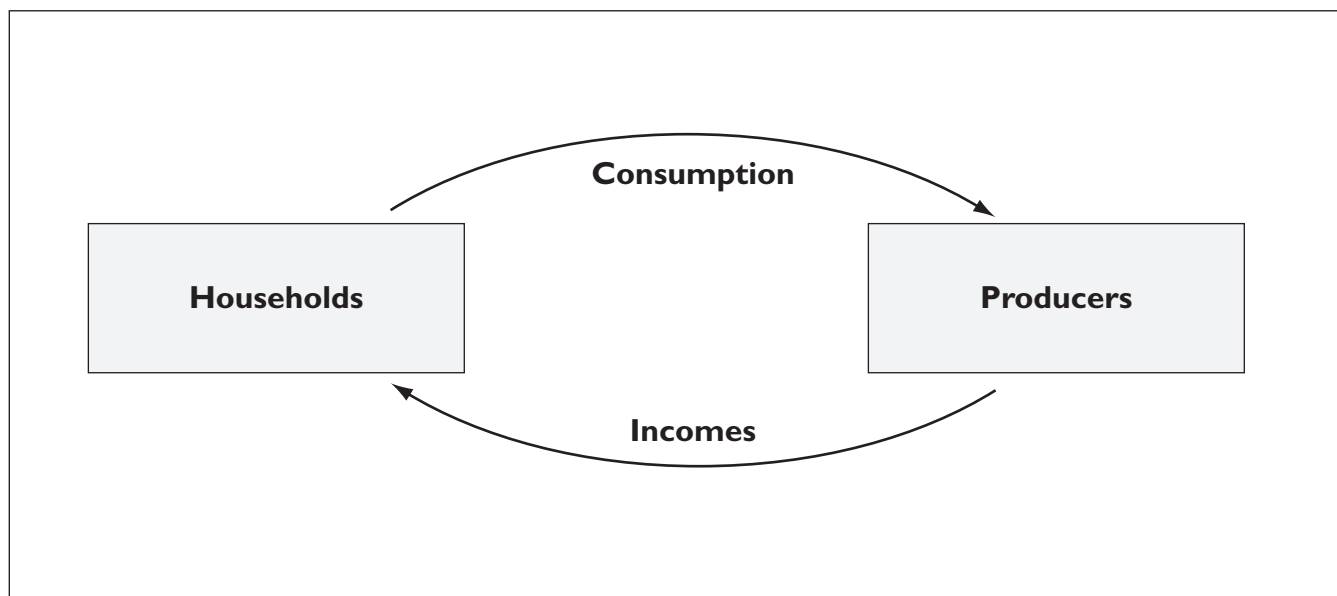


Figure 9.8 GDP cycle

GDP can be calculated using the income approach or the expenditure approach. The **income approach** is when you add together all incomes created in production. This includes items such as:

- ❑ Compensation of employees – such as wages, salaries and the employees' taxable allowances.
- ❑ Gross operating surplus (before the deduction of company taxes, dividends, bad debts and net interest).
- ❑ Depreciation allowance.
- ❑ Net indirect taxes (indirect taxes minus subsidies).

The **expenditure approach** to calculating GDP is when you add together the market value of purchases of all final goods and services that are produced in the economy. The expenditure approach includes:

- ❑ Private final consumption (C) – what households spend on consumption goods and services.
- ❑ Gross fixed capital formation (I) what firms spend as investment on new machinery, factories and what government spends on works like new roads, building of schools, etc.
- ❑ Government final consumption (G) what the government spends on services which are not sold on the market, for example, defence, police, education and health services.
- ❑ Net exports (exports minus imports).
- ❑ Statistical discrepancy: this is a figure allows for error and a balancing item so that the figure from the income approach equals the figure for the expenditure approach as you get data from different sources.

The method used to calculate GDP will depend on the information you have available. You may be able to use both methods or only one of the two approaches if some information is missing.

# Unit

# 10

## The Market

### Aims

On completion of this unit you should be able to:

- ☐ Define a market and describe the key characteristics;
- ☐ Identify and describe the different markets in the economy;
- ☐ Explain how diverse markets are;
- ☐ Identify different markets in Sāmoa.

### Overview

Earlier we described markets as *any place or situation where buyers or consumers and sellers or producers can exchange goods and services*. Consumers and producers must be able to communicate in some way either in person, on the phone, by mail, over the Internet. By communicating, consumers and producers agree on the price of a good or service. This is how prices can be determined – in the marketplace.

- on-line ordering
- notes for teachers
- latest information
- special discounts



newhouse.co.nz

www

Figure 10.1 The Internet

### The Nature Of The Market

As we saw in Unit 7, a market is any place or situation where buyers and sellers can exchange goods and services.

Notice that a market does *not* have to be a physical place – it may be any situation where buyers and sellers are able to communicate.

A *physical marketplace* may be a local shop, a flea market, a department store, supermarket, the fruit and vegetable markets in Apia and Sale lologa.

A market may also be a *situation*. If there is communication between the buyers and sellers there is a market.

If a camera shop advertises a camera in a newspaper you can order the camera over the telephone and pay for it using a credit card or cheque sent by post. The camera is delivered by courier. Exchange has taken place, but you the buyer and the seller have not met.

The Internet is becoming a popular marketplace. Sellers from all over the world can advertise their products on the world wide web. People (from all over the world) can see the products on their computer screens and order electronically.

Mail order is another sort of market. In New Zealand there is a firm called Fotopost which develops people's photos. The customer places their films in a special Fotopost envelope and sends it off (to a place in New Zealand called Taupo) to be developed. It is posted or couriered back and delivered to the customer's home. No physical contact is made between the consumer and the producer except by mail.

Sometimes market situations arise in people's homes. Gourmet New Zealand is a firm which sells specialist cookware and herbs and spices in New Zealand. A consumer invites her/his friends around and the salesperson comes to their home and demonstrates the cookware which is then available for sale. This can be a good way of selling a product that needs to be demonstrated for people to appreciate it.

Consider also when people sell things by going from house to house or when you buy a chocolate bar by putting a coin in a vending machine.

## The diversity of markets

As we have seen, markets can vary in many ways. Some markets can be very informal, like outdoor fruit and vegetable markets, where prices may be set, but customers can bargain with the sellers if they want. Other markets are very formal, for example a department store where prices are set and bargaining rarely takes place. There are laws to ensure the rights of buyers and sellers are upheld, and that each meet their obligations. In Sāmoa the relevant Acts are Fair Trading Act 1998, Consumer Information Act 1989, Sale of Goods Act 1975.

Markets also differ because of what is bought and sold. Different commodities are sold in the different markets we have studied. A department store may sell Royal Albert fine china, while a flea market may sell hot dogs, home made crafts and second-hand clothes.

The four main markets we study in Economics are the:

- ☐ goods and services market;
- ☐ resource market;
- ☐ money market;
- ☐ foreign exchange market.

The **goods and services market** is when producers provide consumers with goods and services (for example, food, shoes, dental services) in exchange for payment.

The **resource market** or **factor market** is where people provide their resources such as labour, capital and natural resources to producers in exchange for income such as wages, rent and interest. The labour market involves the supply of human resources (from households or consumers) and the demand for labour (by firms or producers). The supply and demand curves look like the supply and demand curves in the goods and services market. The price of labour is wages.

The demand for labour is a **derived demand**. It comes from the demand for the good or services produced. Derived demand means 'to come from'. The demand for a good or service is a **final demand**. For example, the demand for a coconut cream factory where workers are required for the production line (**derived demand**) comes from the demand for coconut cream (**final demand**).

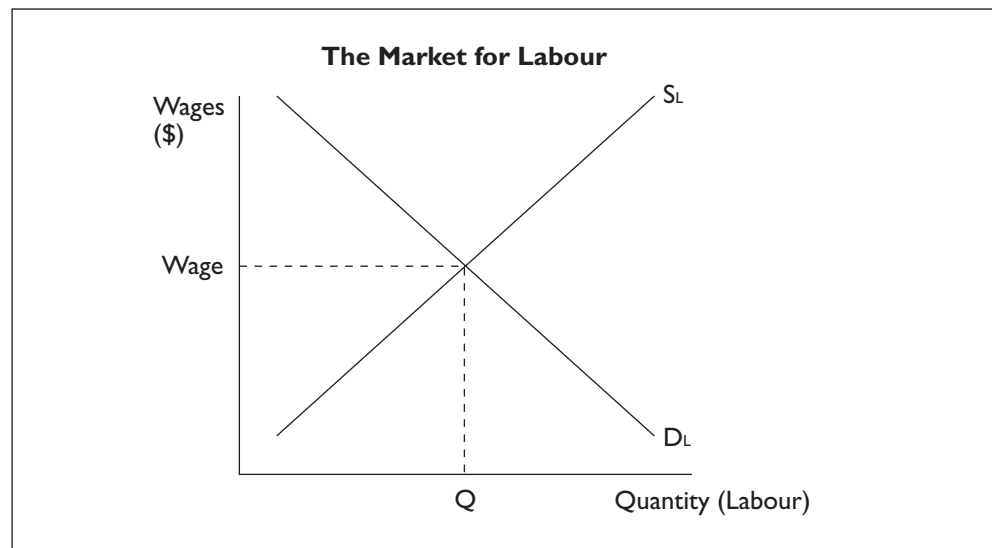


Figure 10.2 The market for labour

The **money market** involves the supply and demand for money. The price banks or financial institutions pay savers is called **interest**. Banks, or financial institutions pay the savers for the use of their money. They get to use that money until the savers want it back. They pay interest in return for being able to use that money.

The financial institutions then loan the money out, e.g. producers borrow from the bank so that they can increase their stock of capital goods (called investment). The producers then pay the financial institutions for the loan of the money, that is, interest. The interest rate that the producers pay will be higher than what the bank pays the savers – that is how banks make their profit.

The **foreign exchange market** is where Sāmoan talas and overseas currencies are bought and sold.

In Sāmoa (an open economy) we buy many goods from overseas countries (imports) and we sell goods to overseas countries (exports). If a Sāmoan firm was to import some stereos from Japan, the Japanese seller would want to be paid in Japanese yen – not Sāmoan tala – in exchange for the goods. In order to do this, the Sāmoan firm must go to the foreign exchange market to buy yen, so that it can pay for the stereos.

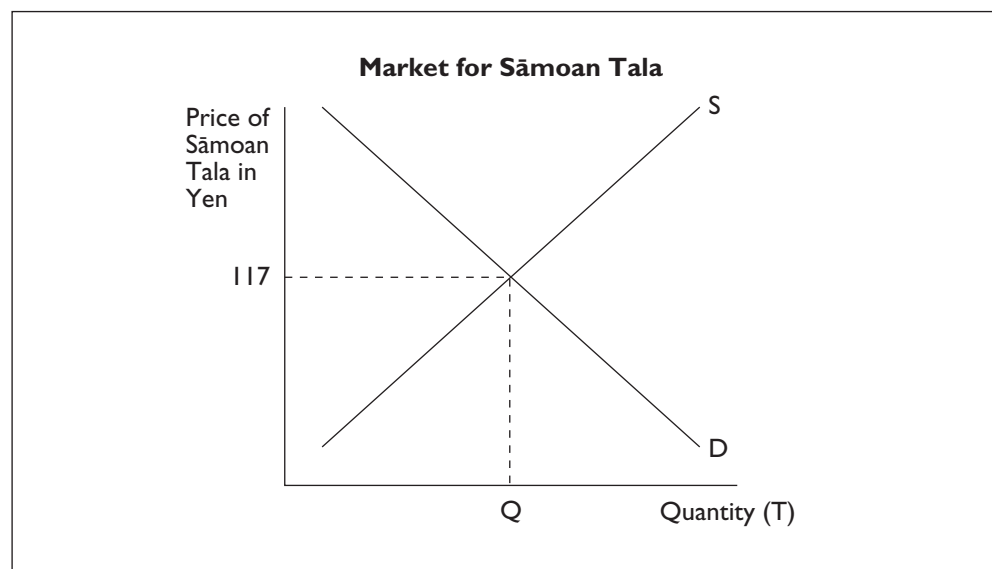


Figure 10.3 Market for Sāmoan Tala

The foreign exchange market is the link between Sāmoan importers and exporters and overseas importers and exporters.

Sāmoa has many different types of markets in the same way as other countries.

## Activities

1 Match the terms in the box below with the phrases that follow.

marke	flea market	mail order
obligations	resource market	interest
exchange rate	imports	exports
resources		

- a The price of buying a foreign currency in relation to another currency.
- b An informal place, where people come together, usually only once a week to sell and buy a range of items, many secondhand.
- c Selling domestically produced goods to an overseas country.
- d Factors which are used in the production of goods and services, including labour.
- e Buying goods or services from an overseas country.
- f A way of buying and selling goods or services which takes place through the post and the buyer and seller do not actually meet.
- g What we are expected to meet in order not to interfere with the rights of other people.
- h A place or situation where the resources of households are bought or sold.
- i A place or situation where buyers and sellers can exchange goods and services.
- j The price of borrowing money.

2 **True or false?** State whether the following are true or false. If they are false, rewrite the sentences to make true statements. (Do not just change a negative sentence to a positive one or vice versa, but rewrite them.)

- a A market is a place where buyers and sellers can exchange goods and services.
- b Telephone marketing cannot be an example of a market because the two people communicating do not meet.
- c A market involves buyers and sellers being able to communicate, and exchange must be able to take place. One market may vary from another market because of size, what is being bought and sold, and how formal the market is.
- d All importers and exporters trade with the US\$ so that international trade can take place.
- e An economy must be a closed economy in order for international trade to take place.



- f** If a person was going to visit the United States of America for a holiday they would probably communicate with the foreign exchange market to buy American dollars, so that they could shop when they arrived in the United States.
- g** The resource market is where the productive services of households are bought and sold.
- h** Interest is the price of borrowing money.
- i** Investment usually involves borrowing money from financial institutions, so that the amount of capital goods a firm has, can increase.
- j** All laws are basically in place to protect consumers from the devious practices of producers.
- 3 a** Describe the key characteristics of a market.
- b** Name the four main markets in an economy.
- c** Write a list of ten different markets that you might come across within a week.
- d** Explain how you can create a market situation on the Internet when you do not physically meet another person.
- e** Complete the following circular flow diagram to show savings coming from the households and being transferred to producers in the form of investment.

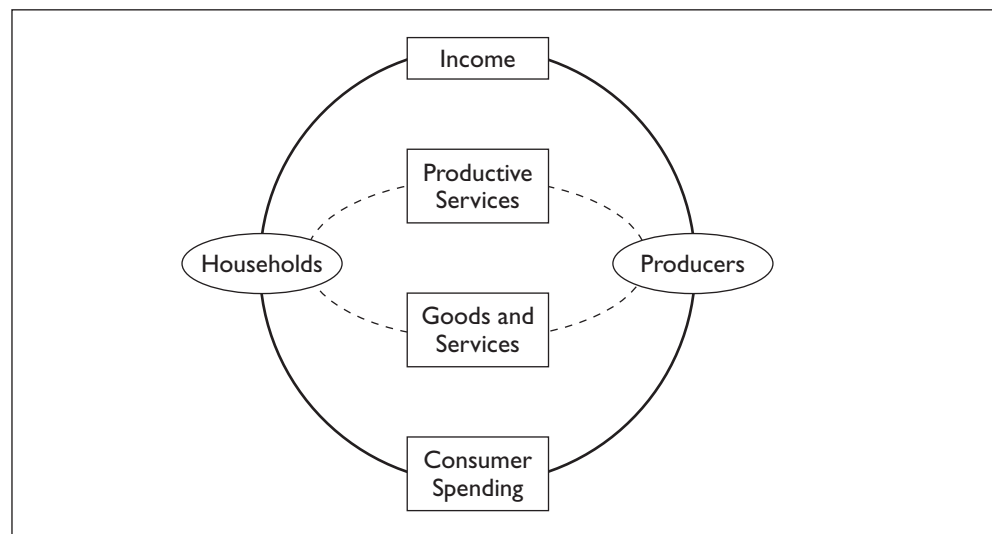


Figure 10.4 Circular flow diagram

# Inflation

## Aims

On completion of this unit you should be able to:

- ☐ Explain the concept of money, its functions and characteristics;
- ☐ Define inflation;
- ☐ Describe the link between money and inflation as explained through the Quantity Theory of Money.

## Overview

We have discussed the role of money in the economy in the *Business Studies* books Year 9 and 10 texts. We looked at how money was created to ease the problems of barter. In order to meet the growing demand for exchange of goods and services, money has evolved from being payment with actual notes and coins. Today's different forms of money include non-cash methods of payment such as credit card, cheques or EFTPOS (electronic funds transfer at point of sale).

## Functions And Characteristics Of Money

Money has four main functions:

- ☐ **Medium of exchange** – Goods and services are exchanged for money. This money is then exchanged for other goods and services.
- ☐ **Standard of value** – The value of each good is measured against a standard unit of value. Different goods can then be compared.
- ☐ **Means of deferred payment** – Money allows people to buy goods on credit that can then be paid for later with money.
- ☐ **Store of value** – Money can be stored without losing the value over time.



The most important function of money is as a medium of exchange. This allows people to abandon barter as a means of exchange. To be effective as a medium of exchange, money must be:

- ☐ Acceptable to people for purchase of goods.
- ☐ Portable – it can be carried around easily.
- ☐ Divisible into smaller units (as talas can be divided into senes).
- ☐ Recognisable as money and hard to counterfeit.
- ☐ Durable – can withstand frequent use.
- ☐ Stable in value – holds its value over time.
- ☐ Scarce in supply.

In Sāmoa our money is legal tender and is made up of notes and coins. By law, notes and coins must be accepted in return for goods and services. Many other forms of money are also accepted, e.g. cheques, EFTPOS, telephone and Internet banking, but by law they do not have to be. For example, a shopkeeper would not be breaking the law if he would only accept notes and coins as payment from his customers.

Because notes and coins are not the only medium of exchange used, the definition of money has expanded accordingly:

**M1** Notes and coins PLUS transaction accounts (cheque accounts)  
**held by the public**

**M2** M1 plus on call funding (savings accounts where withdrawing money does not result in a penalty) at M3 institutions

**M3** M2 plus net investment and term accounts in M3 institutions

## Activities

1 Explain the effect of the following transactions on M1.

**Example:** *Someone transfers \$5000 from their cheque account to a term deposit*

**Answer:** M1 ↓ (falls)

- a** A deposit of cash is made into a cheque account.
- b** Cash is withdrawn from a savings account.
- c** A savings account is closed and the balance is transferred to a term deposit account.
- d** A savings account is closed with the balance transferred to a cheque account.
- e** Clothes are purchased using cash.
- f** A term deposit account is opened using cash.
- g** Cash is withdrawn from a savings account.

2 Credit cards are not considered a form of money, credit cards are a form of payment. Give a possible reason for this.



3 Use the table below to complete the following questions.

Table 11.1

*Actual Balances held in New Zealand*

Year	Notes and coins held by the public (\$m)	M1 (\$m)	M2 (\$m)	M3 (\$m)
1998	1561	11 144	33 797	91 553
1999	1664	12 656	38 006	93 984
2000	1862	14 577	41 490	97 834
2001	2001	15 455	42 433	105 251
2002	2191	17 218	49 377	120 452

- a Calculate the percentage of notes and coins that make up M3 for each of the years shown.
  - ☐ 1998
  - ☐ 1999
  - ☐ 2000
  - ☐ 2001
  - ☐ 2002.
- b What does this tell you about the make-up of New Zealand's money supply?
- c Are you surprised by this proportion? Explain.
- d What do your answers to (a) above tell us about the way our money system works?
- e Show the figures you calculated on a line graph.
- f Describe the trend shown by the graph.



5 Complete the star diagrams below.

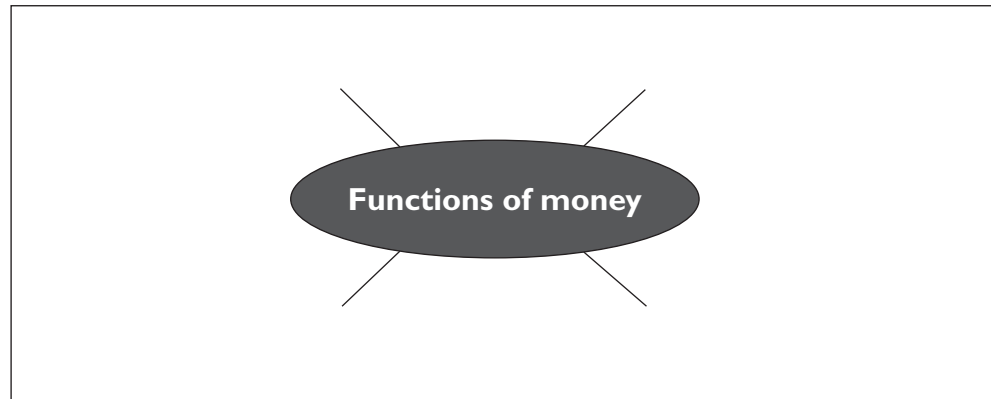


Figure 11.1 Functions of money

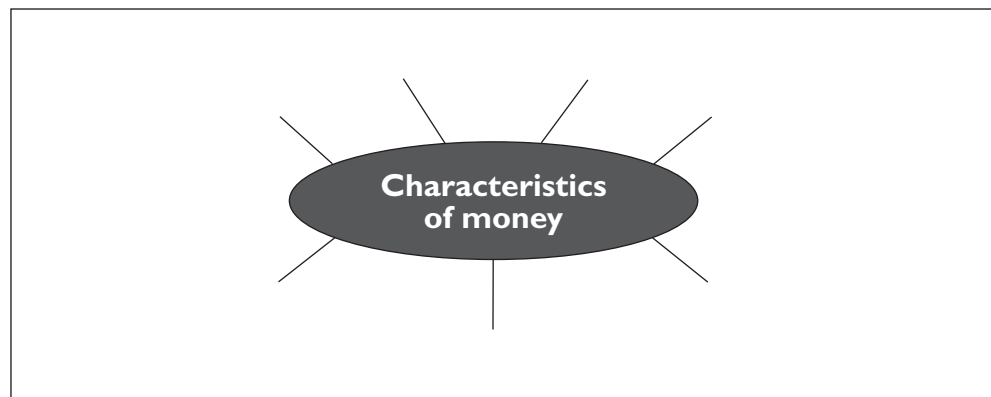


Figure 11.2 Characteristics of money

## Inflation

Inflation can be defined as **an ongoing rise in the general level of prices**. The key words in this definition are 'general level of prices'. A rise in the price of one item is not, in itself, inflation. It is the overall level of prices that must rise, to constitute inflation. For example, when you were born, individual items were much cheaper but it is the combined effect of the increase of all goods and services, from this time until now, that is seen as inflation.

Inflation has an affect on households' borrowings and savings because it decreases the **purchasing power of money**. When prices increase, the same amount of money buys less and less. Therefore in times of inflation, there is no incentive for you to save, as your money buys more today than it will at a later time. Consumers will spend their income and be more inclined to borrow as the real value of this amount will fall over time.

During times of inflation, production costs and revenues become unpredictable. Production costs will increase the sale price of goods and if these goods are being exported, then they will be less attractive because of the higher price. Exports will fall. Import of less expensive substitute goods will increase as consumers look for cheaper replacements.

## The Line Between Money And Prices – The Crude Quantity Theory Of Money

**Fisher's Identity**, named after the American economist Irving Fisher, gives a line between money and prices. It is expressed as

$$MV = PQ$$

The identity says the value of the money stock (M, the amount of money in circulation) multiplied by the number of times the money circulates through the economy (V, the velocity of circulation) must equal the value of the goods purchased. The value of the goods is the number of goods purchased (Q) multiplied by their price (P).

The **Quantity Theory of Money** is based on this relationship. The **Crude Quantity Theory of Money** assumes that the velocity of circulation (V) and the number of goods produced in the economy (Q) are constant. This means that if the stock of money were to increase then prices must rise proportionately to keep the identity true. This explains why the government cannot simply print more money to make us all rich. The only effect of printing more money would be to raise the level of prices proportionately.

We could only afford to buy the same number of goods we always used to buy, although they would be more expensive – in effect, we are no better off.

However, it is not likely that an economy is unable to change its level of output. This means that the assumption that Q is constant is a weakness.

The **Sophisticated Quantity Theory of Money** was developed to help overcome this weakness. This version assumes that only V, (the velocity of circulation) is constant; Q (goods in the economy) is able to change. With this in mind, if the money stock were to double then (P times Q) would also have to double but the change could be made up of P doubling or Q doubling or some combination of the two. This suggests that the Q could soak up some of the inflationary pressure caused by the increase in money stock. Some knowledge of when the economy is likely to be able to change its output is useful.

- ❑ When an economy is operating near its full capacity, all resources and technology are being fully utilised, output is unlikely to be able to increase to help offset the increase in money stock. The economy lacks the spare resources required to produce the extra output.
- ❑ If the economy is not fully used then there are resources available to be used to produce more output.

### Activities

- 1 Explain why increasing the money supply by printing more money will not make us richer.
- 2 Explain why increasing the money supply may not always increase prices.
- 3 What is the link between the money supply and inflation?



- 4** Use **Fisher's Identity** to calculate the velocity of circulation for both M1 and M3 in the chart below.

Year	Nominal GDP (\$m)	M1 (\$m)	Velocity of Circulation M1	M3 (\$m)	Velocity of Circulation M3
1994	85 767	9 513			67 895
1995	91 261	10 334			77 854
1996	96 781	10 565			87 719
1997	1 00 086	11 327			91 441
1998	1 01 061	12 888			92 383
1999	105 684	14 880			98 748
2000	112 295	15 800			105 179
2001	120 151	18 052			117 213
2002	125 411	18 981			130 720

- 5** In your book plot the two values of velocity of circulation you have calculated.
- 6** Comment on the Quantity Theory of Money's assumption that V is constant.



## Glossary

Word/phrase	Meaning
<b>Base year</b>	The year chosen for an index upon which subsequent or previous movements are based.
<b>Capital</b>	Human-produced resources used in the production of other goods and services.
<b>Capital formation</b>	See investment.
<b><i>Ceteris paribus</i></b>	When all other things remain the same (Latin).
<b>Choice</b>	A decision between all the alternatives available.
<b>Circular flow</b>	A model of the economy showing the movement of money and commodities between the major sectors of households, firms, government and financial institutions.
<b>Closed economy</b>	An economy that has no foreign trade.
<b>Commodity</b>	A good or service.
<b>Company</b>	A business organisation which is a separate legal entity and therefore the owners (or shareholders) are not liable for the debts of the organisation should it fail.
<b>Company tax</b>	Tax paid by companies on profits made.
<b>Complementary good</b>	Products that are used in conjunction with another, e.g. bread and butter, shoes and socks.
<b>Crude quantity theory</b>	A theory which states prices are directly proportional to the stock of money.
<b>Demand</b>	The amount of a commodity a consumer is willing and able to purchase at various prices at a certain time.
<b>Demerit good</b>	A commodity which society or the government deems to be harmful for people to consume, e.g. cigarettes, alcohol.
<b>Derived demand</b>	The demand for factors of production which is dependent upon the demand for the final goods and services produced by those factors.
<b>Direct taxes</b>	Taxes which a person or company pays directly to the Inland Revenue Department, e.g. personal income tax, company tax.
<b>Diseconomies of scale</b>	The principle that the average costs of production starts to increase as the size of operation increases or unit costs rise as the scale of production increases.
<b>Dividend</b>	The share of profits of a company that is distributed to shareholders.
<b>Division of labour</b>	Breaking down the production process into a number of smaller tasks.
<b>Economic good</b>	A good or service that is scarce and therefore commands a price.



## Glossary

Word/phrase	Meaning
<b>Economics</b>	The study of how people and organisations use their limited resources to satisfy their unlimited needs and wants.
<b>Economies of scale</b>	The principle of lowering unit costs of production by increasing the scale of output.
<b>Equilibrium point</b>	The price and quantity point that suits both consumers and producers.
<b>Equilibrium price</b>	The price the commodity will sell for. Also known as the market price.
<b>Equilibrium quantity</b>	The quantity of the commodity that will be bought and sold.
<b>Excess supply</b>	When the price of a commodity is set above equilibrium and the quantity supplied is greater than the quantity demanded. Also known as surplus.
<b>Exchange rate</b>	The rate at which one country's currency is traded for another's.
<b>Expenditure approach</b>	The method of calculating National Income by adding up the market value of purchases of all final goods and services that are produced in the economy.
<b>Final goods</b>	Those goods and services which need no further production and can be used by consumers to satisfy their needs and wants.
<b>Financial institutions</b>	Organisations like banks and finance companies which accept deposits and make loans.
<b>Foreign exchange market</b>	The market where overseas currencies are bought and sold.
<b>Free good</b>	A good or service that is so abundant in relation to its demand that no one is prepared to pay for it, e.g. air.
<b>Government</b>	A main actor in the economy by: providing collective goods and services, redistributing income; regulating the overall flows of activity.
<b>Gross domestic product</b>	The money value of all goods and services produced in an economy in a year.
<b>Household</b>	A person or group of persons that operates as one economic unit for purposes of living together.
<b>Income</b>	The reward received by factors of production for services rendered.
<b>Income approach</b>	The method of calculating National Income by adding up all the incomes earned by the factors of production in producing the GDP.
<b>Income tax</b>	A direct tax on earning by individuals or firms.
<b>Indirect taxes</b>	Taxes which go through a third party before they reach the government, e.g. VAGST.



## Glossary

Word/phrase	Meaning
<b>Inferior good</b>	A lower quality good that will decrease in demand as one's income increases.
<b>Inflation</b>	A rise in the general level of prices.
<b>Interdependence</b>	A principle of mutual reliance, whereby one party relies on another and the other relies on them.
<b>Interest</b>	The reward for capital as a factor of production.
<b>Investment</b>	The creation or purchase of new capital goods by firms or government.
<b>Legal tender</b>	Money which by law must be accepted in payment of a debt.
<b>Limited liability</b>	When the owner of a business is not personally liable for the debts of an organisation. The entity with limited liability is a separate legal entity that is liable for the debts if the business fails.
<b>Market</b>	Wherever buyers and sellers are able to come into contact for the purposes of an economic transaction.
<b>Market demand</b>	The total demand of all individual consumers for a particular commodity at various prices at a particular time.
<b>Market equilibrium</b>	That point where the supply curve and demand curve for a commodity meet. Also known as the equilibrium price.
<b>Market supply</b>	The total supply that all individual firms in that market are willing to produce at various prices at a particular point in time.
<b>Medium of exchange</b>	The function of money which allows it to be used for buying goods and services.
<b>Merit goods</b>	Commodities that the government considers are good for consumers, e.g. medicines.
<b>Money</b>	Anything widely accepted in the economy for use in exchange.
<b>Money flows</b>	The payments made for the commodities purchased or provided.
<b>Money supply</b>	The stock of money in existence in the economy at a particular time. Narrow money supply M1, comprises notes and coins plus transaction account deposits. Broad money supply M3 includes M1 as well as savings account deposits and term deposits and all other 'on call' money in institutions.
<b>Nominal</b>	Expressed in current money terms, as opposed to a base year index figure.
<b>Non-price competition</b>	Strategies other than reduction of price of commodities, used by firms to persuade customers to buy their goods or services.
<b>Normal good</b>	A product that people will buy more of as their income rises – as opposed to an inferior good.





## Glossary

Word/phrase	Meaning
<b>Open economy</b>	A country that engages in trade with other countries as opposed to a closed economy which doesn't.
<b>Opportunity cost</b>	The next best alternative foregone when a decision is made.
<b>Partnership</b>	A business organisation with two or more people who share the responsibilities, risks and rewards of the organisation.
<b>Price ceiling</b>	The legal limit on the highest price a commodity may be sold for. Also known as price maximum.
<b>Price competition</b>	When firms reduce the price of their goods and services below that of other firms selling the same commodities to attract more customers.
<b>Price floor</b>	The legal limit on the lowest price a commodity may be sold for. Also known as price minimum.
<b>Price maximum</b>	The legal limit on the highest price a commodity may be sold for. It is a means used by the government to protect consumers. Also known as price ceiling.
<b>Price minimum</b>	The legal limit on the lowest price a commodity may be sold for. It is a means used by government to protect particular producers or a resource. Also known as price floor.
<b>Producer</b>	A person or entity that creates goods or services to sell.
<b>Product differentiation</b>	A major form of non-price competition, that promotes apparent differences from competitors' products, e.g. sponsorship, advertising.
<b>Product variation</b>	A major form of non-price competition, that promotes the real differences from competitors' products, e.g. features such as electric windows or airbags for a car.
<b>Production</b>	The process of making goods and services measured in terms of output or quantity produced.
<b>Productivity</b>	The ratio of outputs to inputs, usually measured by output per worker over a given period of time.
<b>Public goods</b>	Those goods and services that are provided by the government sector, e.g. roads.
<b>Purchasing power</b>	The actual goods and services that can be bought with money income.
<b>Quantity theory of money</b>	The theory that states that the stock of money is directly or closely linked with price changes.
<b>Quotas</b>	A physical restriction on the number of items able to be imported into a country (or produced by a given producer).



Glossary	
Word/phrase	Meaning
<b>Real</b>	The value of an item expressed in terms of constant money value, i.e. removing the effect of inflation.
<b>Real flows</b>	When actual commodities move between different sectors of the economy.
<b>Real GDP</b>	A country's output measured in terms of dollars of constant purchasing power.
<b>Regulations</b>	A law passed by government that controls the production or use of a commodity in some way.
<b>Related product</b>	Any good or service that can be produced using the same resources in the existing production process.
<b>Sales taxes</b>	A tax imposed by governments on particular commodities to decrease supply.
<b>Savings</b>	The part of disposable income not spent on current goods and services.
<b>Scarcity</b>	When available resources are not sufficient to satisfy all desires.
<b>Service industries</b>	Industries in the tertiary sector of the economy that provide services to individuals and organisations.
<b>Share market</b>	A place where shares of publicly listed companies can be bought and sold. Also known as stock exchange.
<b>Shareholders</b>	The owners of a business.
<b>Shortage</b>	When quantity demanded is greater than the quantity supplied.
<b>Sole trader</b>	The simplest form of business organisation where one person owns and operates a business.
<b>Sophisticated quantity theory</b>	The theory that states that the money supply is directly proportional to changes in nominal GDP.
<b>Specialisation</b>	To concentrate on the production of one job or task.
<b>Subsidies</b>	Payments made to producers by government to lower production costs and encourage people to consume a particular commodity.
<b>Substitute good</b>	A product which can be used in place of another, e.g. Coca Cola and Pepsi.
<b>Supply</b>	The quantity of a good or service a producer is willing to sell at various prices at a certain time.
<b>Supply curve</b>	A graph showing the quantities that producers are willing to supply of a commodity at various prices.
<b>Supply schedule</b>	A table showing the quantities that producers of a commodity are willing to supply at various prices.



## Glossary

Word/phrase	Meaning
<b>Surplus</b>	See excess supply.
<b>Tariff</b>	A tax on imports.
<b>Technology</b>	Capital goods, processes and methods of production that a firm has.
<b>Trade agreement</b>	A written contract between governments to promote and free up trade between nations.
<b>Transfer payment</b>	Social welfare payments to beneficiaries which are in effect transfers of money from one group (taxpayers) to another (recipients of benefits).
<b>Unemployment</b>	A situation where there is a surplus of people wanting to offer their services or labour compared to the quantity of labour demanded by producers.
<b>Unlimited liability</b>	When the owner of a business takes all the risk of the business venture. If the business fails, then the owner is responsible for all the debts of the business.
<b>Value added</b>	The value of the output less the cost of inputs in a production process.
<b>Velocity of circulation</b>	The average number of times the stock of money circulates in a given period of time.



## Key Vocabulary

Vocabulary	Collocations	Derivations
affect alternative appear appropriate authority benefit calculate characteristic concentrate contribute convenient determine differentiate direct distinguish diverse environment exist factor feature function illustrate implication individual influence initial interact interdependence international interpret legal link maintain manufacture maximise occurs performance pollution potential process proportionately range rate react relatively reliability resource responsibility scale scarce similar specialist stable structure supply technology vary	the most appropriate type of transport to use  the firm benefits from being larger  the key characteristics of a market  differentiate between x and y indirect taxes, control directly  diversity in the market environmental damage  the most important function of money is . . .  the implications of a shift in demand  legal factors  maximise profits  there is potential for the firm to earn more; potential customers  rely upon the finance industry  scarce resources  the financial structure of a business  markets can vary in many ways	alternatively apparent  calculation  contribution convenience  indirect, directly  diversity environmental existing  interaction  illegal  rely  responsible for  scarcity  stability  technological variety



## Topic Specific Vocabulary

<p><b>Related to Unit 2 Business Structure</b></p> <p>management ownership sole incur expertise security, secure venture speculate</p> <p><b>Related to Unit 3 Service Industries</b></p> <p>bulk, bulky non-perishable, perishable strategy, marketing strategies target media packaging appeal</p> <p><b>Related to Unit 4 Productivity</b></p> <p>productivity commodity economies of scale</p> <p><b>Related to Unit 5 Non-Price Factors Affecting Supply</b></p> <p>non-price shift tariff</p>	<p><b>Related to Unit 6 Non-Price Factors Affecting Demand</b></p> <p>substitute goods complementary goods</p> <p><b>Related to Unit 7 Market Equilibrium</b></p> <p>equilibrium surplus excess</p> <p><b>Related to Unit 8 Government Intervention In The Market</b></p> <p>subsidy intervention price control minimum wage</p> <p><b>Related to Unit 9 Circular Flow</b></p> <p>sector injection withdrawal flow invest</p> <p><b>Related to Unit 10 The Market</b></p> <p>market situation</p> <p><b>Related to Unit 11 Inflation</b></p> <p>inflation</p>
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## Useful structures

### Defining:

- ❑ Price competition strategies involve reducing the price below your competitors' prices.
- ❑ Interdependence occurs whenever there is a situation of two-way reliance.
- ❑ In other words, marketing is finding out what consumers want and getting it to them.
- ❑ Non-price competition has two major forms:
  - a **product differentiation** which promotes *apparent* differences from competitors' products
  - b **product variation** which promotes the *real* differences from competitors' products.
- ❑ This idea of output per unit of input is called **productivity**.

### Describing change:

- ❑ As her income increases Leilani's demand for the inferior good (mince) falls.
- ❑ The graph of Leilani's demand for steak shows the effect of increase in her income on a normal good.
- ❑ If the price of cooked fish goes up, resulting in a decrease in the quantity of fish demanded, then people will buy fewer chips.
- ❑ Producers lower prices to get rid of excess stock, then consumers will increase their quantity demanded and producers increase the quantity supplied until the equilibrium price and quantity is reached.



